Effects of a Book Study on Culturally Responsive Teaching, Cultural Care, and Empathy:

Empowering Educators to Empower Students

by

Erica Wager

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved March 2024, by the
Graduate Supervisory Committee:

Eugene Judson, Chair
Lydia Ross
Christina Van Puymbroeck

ARIZONA STATE UNIVERSITY

May 2024

ABSTRACT

Community college students make up nearly half of all college students (41%)
and community colleges provide a unique opportunity for educators to instruct students in
a more close-knit learning environment. While one goal at Estrella Mountain Community
College is to support all students in their learning, some students, particularly Black and
African American students, face equity gaps in milestones such as successfully
completing classes, which may be due in part to a lower sense of belonging in the
classroom.

To address this problem of practice, a book study was conducted using the tenets
of Communities of Practice (CoPs) to explore Culturally Responsive Teaching and the
Brain (CRT-B) by Zeretta Hammond. The study aimed to enhance educators' self-
efficacy in culturally responsive teaching (CRTeaching) and cultural care and empathy
towards their students, which was aligned with the goal of increasing inclusion and
belonging in EMCC classrooms. This is because CRTeaching has been found to boost
students' sense of belonging in classrooms. Pre- and post-measures were used to assess
any changes in these constructs, with educator participants also distributing surveys to
their students before and after the book study. Both surveys included quantitative and
qualitative measures, with additional interviews conducted with four educator
participants.

The study found a significant increase in educators' self-efficacy for CRTeaching
and general instruction, as well as a non-statistically significant increase in cultural
care/empathy and students' sense of belonging and inclusion in the classroom. This
increase was documented using several measures. Qualitative findings from both groups

were also closely analyzed, leading to the development of a conceptual framework that

can be used to advance CRTeaching or increase buy-in for such professional

development opportunities in the future.

DEDICATION

This dedication is to the students at Estrella Mountain Community College, who have played an instrumental role in shaping me both as an instructor and as a person. I am extremely grateful for everything that I have learned from you all, and I firmly believe that I have learned just as much from you as you have learned from me, if not more. Your passion and dedication towards your studies have been nothing short of inspirational, and I sincerely thank you for helping me to become a better educator and a better person.

I have had the privilege of observing firsthand your gumption and perseverance, which have been truly admirable. I have no doubt that each and every one of you will go on to achieve great heights in your respective fields, whether it is as clinicians, researchers, nurses, doctors, educators, leaders, politicians, journalists, or in any other role that you choose to take up. You are all rockstars in your own right, and I am extremely proud of everything that you have accomplished.

ACKNOWLEDGMENTS

From the bottom of my heart, I would like to express my deepest gratitude to Byron, my person and partner, for being my constant source of support and encouragement throughout this entire journey. Without you, this work would not have been possible - and I mean that both figuratively and literally, as you have diligently edited every single page of this dissertation. I cannot thank you enough for all that you have done for me, and for being my rock during the most challenging times. I am so lucky to have you in my life.

I would also like to extend my appreciation to my mom and dad, who instilled in me at a very early age a deep admiration for education. You both have been my pillars of strength, and I knew that I could tackle anything that came my way because of the unwavering love and support that you have always showered upon me. To my grandparents, especially Lola and Doris, who were both educators, I owe a debt of gratitude for teaching me about dedication and the importance of striving to achieve our goals. I am deeply grateful for everything they taught me.

I would like to thank Dr. Judson for your continued support. Your expertise, knowledge, and kind words of encouragement have been invaluable to me throughout this entire journey. I would also like to express my gratitude to Dr. Ross and Dr. Van Puymbroeck for your unwavering support, both professionally and personally. Your guidance has been instrumental in helping me stay focused and motivated. Thank you all for being a part of my journey, and for helping me to achieve my dreams.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

PREFACE

A Note on Language

Considering the current political climate and ever-evolving social landscape in the United States, it is imperative that educators remain mindful of their use of language when referring to students' races, ethnicities, and gender identities to ensure inclusivity. Mack and Palfrey (2020) say "Language itself is radical. It can be used to either support or challenge the system racism we seek to dismantle." Furthermore, the recognition of gender as a non-binary construct has led to a shift in the way terms regarding gender are written. For instance, this changes how terms like "Latino" and "Latina" are employed. In this dissertation, "Hispanic/Latina/o/e" refers to students who identify as Hispanic, Latina, Latino, Latinx, or Latine. The term "Latina/o/e" is preferred over "Latinx," as the latter does not align with the Spanish language and pronunciation. Notably, the "x" in "Latinx" was developed in the United States by academics, heritage speakers and Latin American immigrants in the early 2000s, while an updated option that mimics the existing morphophonology of Spanish emerged in the mid-2010s, using the "e" ending (Morales, 2019; Slemp, 2020). This conversation among individuals of Latin American and Hispanic descent represents a compelling discourse, as it is one of the first instances of language changing self-identification terms to create an inclusive space for members of the Queer and Gender non-binary communities (Morales, 2019).

In this study, "Black/African-American" refers to students identifying as either one or both of those races. At the same time, "two or more races" is employed for those who identify as multiracial, biracial, or of having two or more races. "White" is used for students who identify as White, European-American, or Caucasian. When referring to

x

multiple groups of students, "students of color" is used for all students endorsing race-ethnicities that are exclusive of White, European-American, or Caucasian, while "White" is employed for students who exclusively identify as White, European-American, or Caucasian. I choose explicitly to capitalize the "w" in White because all other identifiers are capitalized as well, and to not capitalize the "w" in White would then "implicitly affirm Whiteness as the standard and norm" (Mack and Palfrey, 2020). For all other races, the terms used by the Estrella Mountain Community College for self-identification are used. Finally, when referencing prior studies or reports completed by others, the same language is used for students as employed by the original authors.

CHAPTER 1

LEADERSHIP CONTEXT AND PURPOSE OF THE STUDY

"One of the things that make community colleges so special is they do not pick
and choose their students – they work with all students."

— Dr. Jill Biden

Larger Context

According to the Community College Research Center, community college

students make up nearly half of all college students (41%). Given their smaller class

sizes, community colleges provide a unique opportunity for educators to instruct students

in a more close-knit learning environment. According to a study on a large cohort of

students, the completion rate for students at two-year public institutions varies greatly by

race; Shapiro et al. (2017) reported that White and Asian students had higher completion

than Hispanic and Black students and that Black students were more likely to stop out

from their educations than any other race. Stopping out is when a student takes time off

from school, intending to return. Additionally, Black students are less likely to graduate

on time, even though they enter college with the expectation of graduating on time

(Espinosa et al., 2019). Black students also have higher debt than others, owing 15%

more than students of other races after graduation (Espinosa et al., 2019). Stopping out,

delayed graduation, and higher student debt are well-documented examples of equity

gaps that need to be better understood and narrowed or eliminated. According to the

Education Advisory Board, equity gaps are any disparities or differences in educational

outcomes and success for students based on various demographic differences (Hubbard et

al., 2018). These equity gaps must be better understood and addressed, particularly given

that race and ethnicity override socioeconomic status regarding educational success and

future economic opportunities (Chetty et al., 2020). Due to these findings and given the context of community colleges nationwide, this dissertation focuses on equity gaps related to race and ethnicity.

There are notable differences between students of color compared to White students in terms of access to education and achievement levels in higher education. For instance, the number of students of color enrolled in higher education generally has increased since the 1990s. Notably, however, the difference in *where* students of color enroll when compared to White students is remarkable. Students of color, particularly American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Black and Hispanic students often attend open-access institutions, while White students more frequently attend selective, higher-performing institutions such as private universities and colleges (Carnevale & Strohl, 2013; Sublett, 2020).

Although equity gaps exist at community colleges and four-year traditional universities, community colleges possess a unique capacity to provide students of color with affordable access to quality education via classrooms with smaller class sizes and more instructor-student interactions. Nearly half of community college students who attend school part-time started college believing they would finish and graduate with an associate degree within two years—fewer than 8% do (Center for Community College Student Engagement, 2017). Students who reported being full-time for their college careers differed significantly by race/ethnicity. For instance, nearly 50% of White students reported being full-time students for their entire college careers, as compared to only 41% of Black students and 37% of Hispanic students (Espinosa et al., 2019).

Recently, community colleges nationwide are experiencing declines in part-time and full-time enrollments (Hope, 2022; Juszkiewicz, 2020). Additionally, two-thirds of community college students who attended school exclusively part-time were no longer enrolled by the end of six academic years. They still needed to complete or transfer to other institutions (Hope, 2022). This finding is exacerbated for students of color, who are more likely to enroll part-time. Given that students of color are more often part-time students, this could explain why fewer students of color graduate or transfer at the same rate as their White peers.

Broader Local Context

Founded in 1920, Maricopa County Community College District (MCCCD) is one of the largest community college districts nationwide. With ten regionally accredited colleges in Maricopa County, MCCCD serves about 100,000 students a year. Maricopa Community Colleges aims to provide affordable, quality education to students across Maricopa County and to prepare students for transfer or careers in their chosen fields. According to a recent report published by the MCCCD Institutional Data team, from 2019 to 2021, leading indicators of student achievement, such as persistence, course success rates, and three-year transfer rates, decreased, whereas some completion outcomes, such as two-year graduation rates, increased. These findings mirror outcomes that began before the tumultuous years of the COVID-19 pandemic.

These data match a nationwide trend—students of color persist less, complete courses successfully less often, and transfer at a significantly lower rate than their White peers (Espinosa et al., 2019). MCCCD has taken note of these data. In an email sent in 2021 to MCCCD employees, the interim Chancellor of MCCCD at the time, now the

3

Chancellor, Dr. Steven R. Gonzales, made a statement about efforts being made at the district level to address equity gaps. Dr. Gonzales emphasized the goal to "Increase equitable two-year completion/transfer rate for students of color from 9.8% (730) to 15% (1,118) by fall 2023," among other objectives (S. R. Gonzales, personal communication, September 29, 2021). Across MCCCD, these equity gaps are being noted, and there are efforts to help narrow them, such as providing more resources to students, like embedded tutors in classes where persistence rates are lower than in other classes.

Local Context

Estrella Mountain Community College (EMCC) is an MCCCD college. It is also designated as a Hispanic Serving Institution (HSI), and Minority Serving Institution (MSI) in the west valley of Phoenix, serving nearly 10,000 students. Since its opening in 1992, EMCC faculty and staff have aimed to create a place for students and the community to come and learn by focusing on values such as learning and engagement through integrity, diversity, collaboration, innovation, and sustainability. According to recent data (Fall 2022), EMCC has 9,621 students. Of those students, 1.11% identify as American Indian, 3.84% identify as Asian, Pacific Islander, or Hawaiian, 7.21% identify as Black, 57.77% identify as Hispanic, 4.59% identify as having two or more races, 24.26% identify as White, and 1.22% did not provide their racial/ethnic information. I use the terms "Black" and "Hispanic" in this chapter as those are the identifiers provided to students by EMCC when asked about their race/ethnicity.

I joined the EMCC community in Fall 2015 as a one-year-only (OYO) faculty member. Then, in 2018, I was hired as a residential faculty member in Psychology to teach classes including Biopsychology, Statistics for Psychology, Introduction to

Psychology, and Developmental Psychology. I also serve as a co-advisor for the Psychology Club and Psi Beta, the National Honor Society for Psychology Majors at Two-Year Colleges. I work with a diverse student population whose ages range from 16 to adults in their 60s, who come from different socioeconomic backgrounds and represent diverse cultural, racial, and ethnic backgrounds.

I am a member of the Behavioral Sciences Division alongside nine other residential faculty members who teach psychology, sociology, anthropology, and economics. As a division, we discussed the EMCC equity gap issue and decided to try a few small interventions to increase student engagement in our classes. One activity we recently implemented is a monthly check-in survey for course credit via Google Forms, asking our students how they feel about their class. We then reach out to students who reportedly felt "okay" or worse about the class (we use a 5-point scale with numbers and emojis) and try to connect them with resources or set up meetings as needed. For instance, if students report struggling with time management, I might refer them to tutors at EMCC's Academic Success Center. A newer intervention we are working on is implementing interactive videos in our online classes using Edpuzzle and Canvas Studio technology tools. These programs allow an instructor to upload a video and add questions throughout the video to check for understanding. These tools help ensure that students have watched the videos and help instructors determine whether students comprehend the information. These activities also help us increase connection with our students, particularly in online courses.

Problem of Practice

My problem of practice is the equity gaps at EMCC facing students of color. These equity gaps can be mitigated by educators increasing their use of Culturally Responsive Teaching (CRTeaching), cultural caring, and empathy in the classroom, given that many instructors do not possess the proper understanding or have not received training in such pedagogical practices. Additionally, the educator workforce at EMCC is part-time, mainly adjunct faculty. Adjunct faculty members can only sometimes attend events available to all faculty for professional development due to other jobs or obligations. Further, more than 70% of our faculty members are White (both residential and adjunct faculty), thus not reflecting our student population's racial demographics. While reaching White educators is an essential piece of my work, I also want to increase awareness at EMCC about our faculty demographics and create spaces for professional development that are more inclusive of all faculty and staff who are educators, including those who are not full-time and who may teach at other schools or levels.

Previous Work Informing the Problem of Practice and Intervention

My problem of practice stems from a previous research study I conducted, along with other colleagues at EMCC, as part of a Title V research project. I will refer to this study as the Title V Student Experience Research Study. Through exploring qualitative and quantitative data, we found several equity gaps in various success outcomes at EMCC. As we learned more about student belonging and experiences of discrimination, I asked myself how educators in the classroom could mitigate some of these issues.

Following the preliminary study, I completed two other studies during the first two research cycles in my Ed.D. program. The first cycle of research, which I refer to as

the Landscape Study, investigated what practices educators at EMCC already engage in to increase student belonging and success. The second cycle of research, which I refer to as the Culturally Relevant Curriculum Toolbox Study, assessed the success of a Culturally Relevant Curriculum Toolbox (CRCT) developed by another EMCC faculty member to help educators engage in more culturally relevant work. I also studied how the CRCT increased faculty self-efficacy for teaching in culturally relevant ways.

In these studies, I learned that faculty members needed more support with their pedagogies surrounding CRTeaching. While some opportunities for increasing these skills were available, they were not equally accessible to all faculty. In the following subsections, I describe these three studies in more detail and indicate how each specifically guided the direction of my action research dissertation study.

Title V Student Experience Research Study

In Fall 2020, I joined a research group funded by Title V with two other faculty members to investigate equity gaps among EMCC students. Our Title V research team had two Psychology faculty members, Dr. Linda Manning, and myself, and one Communication faculty member, Dr. Elizabeth (Liz) Cantú. We investigated institutional data with support from the Title V Director, Jeanne Hanrahan, and our Office of Planning and Institutional Effectiveness (OPIE). We audited this data for information about grades, persistence (defined as remaining in a class until the end of the term), and retention (defined as staying in school from the fall semester of one year to the fall semester of the next). We found equity gaps based on race/ethnicity among the three largest represented groups at EMCC (Black, Hispanic, and White students) on several success outcomes. For instance, there was a significant gap in the proportion of final grades that each group

received at the end of Spring 2020 (analyzed by use of a Chi-square test for independence, $p < .05$). Black students were just as likely to receive an A in a class as they were to fail or be withdrawn from it; Hispanic Students were one-and-a-half times more likely to receive an A in a class than to fail or be withdrawn from it; and White students were two-and-a-half times more likely to receive an A in a class than to fail or be withdrawn from it.

Similarly, we found from our data audit that White students were significantly more likely to have higher GPAs and more retention from course to course than Black or Hispanic students. In 2020 we discovered through the OPIE data dashboards, a data tool provided by our institutional data team at EMCC, that the equity gaps continued to widen. We found that students of color, mainly Black and Hispanic students, continued to have fewer successful grades, more withdrawals, and failed grades, all at considerably higher rates than their White peers (Figure 1).

Figure 1

EMCC Grade Trends by Race/Ethnicity
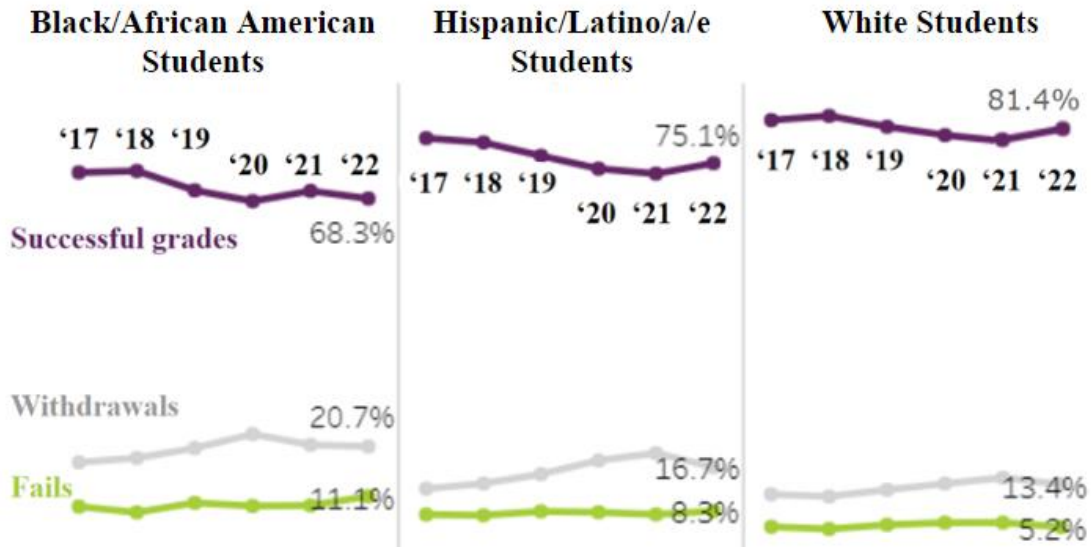
Note. Data ranges from Fall 2017 to Fall 2022. The top line represents finishing classes with successful grades (A, B, C, P), the middle line represents withdrawals, and the bottom line represents fails (D or F).

Our research team presented these data to college stakeholders, including the Leadership Council, composed of administrators and faculty leaders. Together, we brainstormed ways to investigate and narrow these gaps, including doing a mixed-methods study to understand the student experience on our campus further. In the Spring and Fall of 2021, the Title V team surveyed over 1000 students and conducted focus groups with over 50 students to learn more about the student experiences of different demographic groups at EMCC. We also asked questions about race and ethnicity that expanded on data that we received from our institutional data audit (e.g., we asked about not just Hispanic identities but also about whether students identified as Latina/o/e and expanded the possible race or ethnicities given to students when asked how they

identify). Overall, the students in our focus groups had varied levels of academic preparation that led them to be successful on our campus.

Additionally, many expressed differential experiences on the EMCC campus. For instance, some students indicated that if they were not inquisitive and willing to look things up on the EMCC website or ask other students, they probably would need more tools to be successful. Other students expressed struggles finding the right resources on campus and needing to know who to contact for help from our Advising Department.

We also addressed students' sense of belonging in surveys and focus groups. Some students reported knowing faculty and/or staff members on campus with whom they felt comfortable approaching and asking about resources or for help. Some focus group students reported struggling to feel they belonged on our campus. We also learned that many students did not feel very connected to campus and could not identify ways the campus was culturally responsive. As an example of this disconnect, some students could not name their advisor. Other students reported not having a real connection with any of their instructors, and others reported never having a non-White instructor.

The survey responses represented EMCC students of diverse ages, gender identities, races/ethnicities, and first-generation college student status. Overall, students reported a higher sense of belonging in the classroom (virtual or in-person) and a slightly lower sense of belonging outside the classroom. We found that part-time students felt an equal sense of belonging as their full-time counterparts in the classroom, whereas outside of the classroom, part-time students felt a lower sense of belonging than full-time students (marginally significant difference analyzed using a t-test, $p < .10$). We also found that student experiences of discrimination were most likely perpetrated by other

students. Additionally, experiences of discrimination were significantly higher for Black students and students of two or more races, particularly discrimination from other students (significant difference analyzed using a t-test, $p < .05$).

The Title V team presented these findings to faculty, staff, and administrators during several meetings and events and received thorough feedback. For instance, when discussing prejudice and discrimination among students, we mentioned having seen students use prejudicial language and actions directed at other students. A student in my class reported a classmate in another class saying, "Trump is going to build that wall, and you'll be on the other side of it," in response to a discussion about the 2016 election results. Further, the student said the class instructor did nothing in response to this statement. This example spurred a conversation among faculty attending the presentation about whether instructors are prepared to handle these situations in their classrooms. With these findings and discussion in mind, I began to consider how knowledge of Culturally Relevant Pedagogy (CRP), CRTeaching, and increased empathy in the classroom might mitigate some of these experiences of discrimination for students and increase a sense of belonging and inclusion for all students-which led to the follow-up investigation, the Landscape Study.

Landscape Study

In this study, I interviewed EMCC faculty about teaching and their experiences with students, particularly students of diverse backgrounds. The interviews were semi-structured to determine how CRP/CRTeaching and empathy in the classroom affect students and their progress in a class. Two major findings emerged from my participant

interviews: (a) CRP/CRTeaching and empathy improve the student experience; and (b) ways in which instructors can be more culturally responsive in the classroom.

Regarding the first finding, the participants discussed how these pedagogical approaches improve students' experiences. They asserted that culturally responsive approaches have improved student engagement and connection in their classrooms, mainly when students apply the material to their lives. For example, one instructor noted how, in their class, they help students make connections from the material to their own lives and families. The example discussed a lesson on fashion and the flapper culture in the 1920s. In this lesson, students related that even now, they wear or do things to their bodies (e.g., piercings or tattoos) that their parents may disapprove of.

Faculty participants also reported that CRTeaching and empathy often improve buy-in from students and the attitudes of their students who previously did not enjoy the discipline they teach. One participant reported about "students who come to me and say, 'I hated to read, and then I picked up this book which was about a guy that I could relate to… and I have connected with this book so much.'" This instructor also said that students have rediscovered reading and enjoy reading in class. The instructor mentioned this to emphasize the importance of voice and diversity in the material shared with students. They and their colleagues make this a priority when they are selecting new material for their classes. Another faculty member reported that one student came to them years later and said, "You helped me decolonize my brain," again emphasizing the importance of representing many voices during lessons.

Regarding the second finding, ways that someone can become more culturally responsive/relevant and empathetic in their classroom, faculty participants listed several

ideas and practices they have used or are interested in using. Their responses also prompted some ideas for possible future interventions. They reported using various activities and approaches in the classroom to increase personalization so that students could get to know each other and the faculty. One example was to meet students at the door and do a real-time check-in with each of them. One faculty member reported using comedy to personalize examples as reasoning for the importance of diverse representation among faculty. This instructor reported being able to connect with many students as most of them are Latinx, as is the faculty member. As an indication of connectedness, this faculty member explained, "a lot of my teaching is almost stand-up comedy. I say that because I can say a lot of things that are culturally relevant to these students."

Another method expressed during interviews was a willingness to engage in uncomfortable conversations and create a space where mutual learning can happen for the students and the instructor. One point was that faculty should avoid trying to be "colorblind" regarding their students. One faculty member exclaimed that they could not approach all students the same because they were diverse and had varying needs and that students could teach an instructor just as much as an instructor could teach students. Another instructor emphasized that ". . . cultural humility is your ability to listen, ability to know that the purpose of your time with students isn't for you to solely impart knowledge on them, it is a synchronous way to say that we are in this learning community together." This theme of mutual learning and respect arose during all interviews and each faculty member emphasized it during their interview.

Based on my findings, I learned that some instructors at EMCC already use CRP/CRTeaching and empathy in the classroom and perhaps need a space to share those practices. I also learned that some other faculty members do not use CRP/CRTeaching and empathy in the classroom. What interventions might make those instructors more willing to try something new related to these culturally responsive and relevant practices? To that point, I also received some feedback about the kinds of training that would be most helpful for faculty at EMCC. Participants indicated that training related to CRP/CRTeaching should be a variety of training because students are not one-size-fits-all. Additionally, participants underscored the importance of faculty buy-in for any intervention. They also stressed that training related to CRP/CRTeaching should emphasize that teaching and learning should be fun and rigorous.

Culturally Relevant Curriculum Toolbox Study

The findings from the Landscape Study demonstrated the power of CRP/CRTeaching and that such pedagogies reportedly increase student belonging and success in the classroom. Bearing this in mind, the second iteration of my action research dissertation work investigated a Culturally Relevant Curriculum Toolbox (CRCT) and associated training to see whether it increased faculty self-efficacy for CRTeaching and the ability to connect and empathize with students. The intervention was a Canvas course that contained a Culturally Relevant Curriculum Toolbox (CRCT) and associated training developed by a faculty member at EMCC, Dr. Clarissa Davis Ragland.

This study used both surveys and semi-structured interviews. The survey asked questions I developed regarding the CRCT and questions I adapted from Siwatu's Culturally Responsive Teaching Self-Efficacy Scale (2007) designed for educators.

Through data analysis, I found that ease of navigation and topics of cultural relevance

(e.g., whether the CRCT helped faculty connect with students of diverse backgrounds)

increased throughout the training. However, topics related to other demographic groups

increased less. For instance, respondents rated their confidence in discussing sexual

orientation and gender identity to be considerably lower than confidence in addressing

issues related to race and ethnicity. When examining retrospective pre-to-post results in

teaching, I found a notable difference in self-efficacy related to teaching culturally

relevant material (Figure 2).

Figure 2

Changes from Retrospective Pre- to Post-CRCT Training (Scale was 1-6)
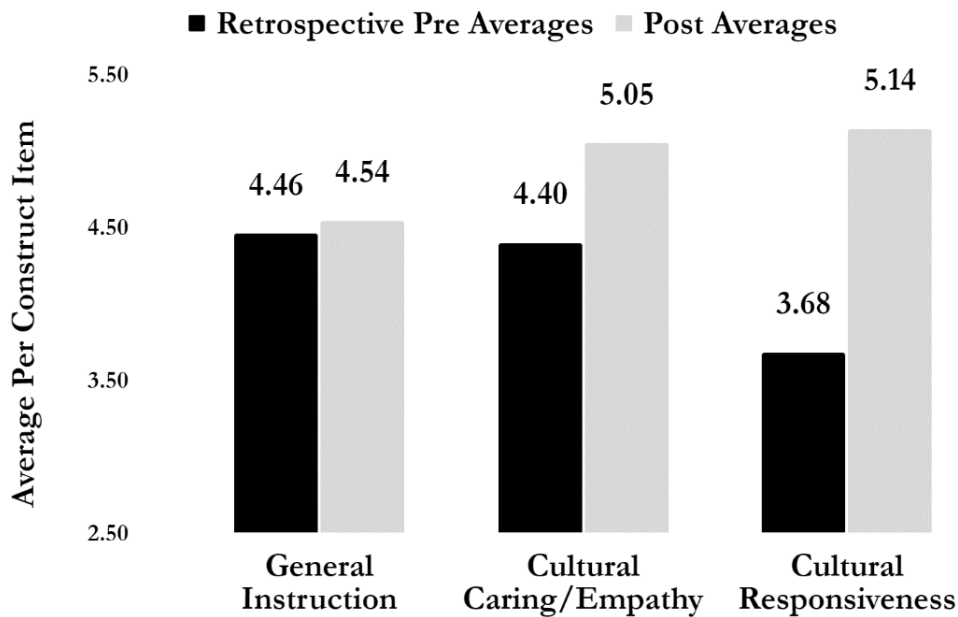
These findings suggest that the use of the CRCT increased CRTeaching and

positively influenced the pedagogical mindset of EMCC instructors. In addition to

helping faculty feel more confident in teaching in culturally relevant ways, the toolbox

also helps faculty members be more empathetic in their classroom and better relate to their students.

I also analyzed the two interviews I conducted as part of this study and found that the CRCT helped faculty members change their thoughts and practices related to CRTeaching. For example, participants reported connecting and empathizing with students more after the CRCT training and use (e.g., encouraging more open communication). These results suggested that the CRCT training positively influenced faculty members' ability to teach in culturally relevant ways and relate to students, as well as aided instructors in recognizing that much of what they already do is culturally relevant. This realization was particularly noteworthy, and may help future iterations of the toolbox. The CRCT is a well-designed tool that will improve further as more people learn about it and receive training. I expanded my understanding of how an intervention can work at the college because of this study and much of what I learned has informed the intervention I propose to address my problem of practice. Following the three previous studies, I re-committed myself to my problem of practice, addressing equity gaps that exist at EMCC. Faculty members might mitigate these equity gaps by increasing their use of CRTeaching and empathy in the classroom.

<center>**Intervention—A Brief Introduction**</center>

Emerging from what I learned from the three aforementioned studies and the problem of practice of racial/ethnic equity gaps at EMCC, I investigated the effects of a community of practice book study among EMCC faculty and staff members; I will refer to the combination of faculty and staff members that also teach or educate as "educators." I designed this intervention to increase accessibility to professional development for

educators at EMCC, including adjunct faculty, as I offered it during the summer. I also scheduled around participants' availability and offered the book study in a hybrid format with in-person and virtual options to be as inclusive as possible.

The book study utilized the book *Culturally Responsive Teaching and the Brain: Promoting Authentic Engagement and Rigor among Culturally and Linguistically Diverse Students* by Zaretta Hammond (2014). Based on my training in biopsychology, I found value in Hammond's skilled way of describing CRTeaching and the brain, the biopsychological components of teaching and learning, and recommendations for pedagogical changes. The combination of biopsychological knowledge and accessible practices to increase CRTeaching made this a solid choice for creating real, positive change among educators at EMCC.

Purpose of the Study and Research Questions

I demonstrated the equity gaps at EMCC, the differential experiences and outcomes that students have had on our campus, the varying levels of CRTeaching development in educators, and the desire of some educators to discuss diversity, belonging, inclusion, and CRTeaching. In response to this set of conditions, my study aimed to increase participants' knowledge and self-efficacy for teaching in culturally responsive ways and cultural caring/empathy in the classroom for all students, particularly students of color at EMCC, concerning their feelings of belonging and inclusion. For this study, I combined cultural caring and empathy as one construct to measure how well participants connect and empathize with students, given their diverse cultural backgrounds. Bearing in mind the purpose of the study, the following research questions guided its conduct.

17

Research Questions

RQ1. After participating in a Culturally Responsive Teaching and the Brain (CRT-B) book study, to what extent are there changes in self-efficacy for…

a. teaching in culturally responsive ways, and

b. cultural caring and empathy with students?

RQ2. After participating in a CRT-B book study, what descriptive changes do participants experience in…

a. self-efficacy for teaching in culturally responsive ways, and

b. engagement in cultural caring/empathy with students?

RQ3. How and to what extent do student belonging and inclusion in the classroom change following their instructor's participation in a CRT-B book study?

CHAPTER 2

THEORETICAL PERSPECTIVES AND RESEARCH GUIDING THE PROJECT

> "However important they are, good intentions and awareness are not enough to bring about the changes needed in educational programs and procedures to prevent academic inequities among diverse students. Goodwill must be accompanied by pedagogical knowledge and skills as well as the courage to dismantle the status quo"
>
> — Dr. Geneva Gay

Theoretical Perspectives Overview

In this chapter, I discuss theories that helped to explain my problem of practice and informed my intervention. First, I explore Critical Race Theory (CRT), which helps explain how our students' experiences of microaggressions on campus could alter their education and lead to the equity gaps that make up my problem of practice. Second, I describe Culturally Relevant Pedagogy (CRP) and other associated pedagogies, such as Culturally Responsive Teaching (CRTeaching), which provide a model for mutually engaging instructors and students as an approach to help educators develop their skills in using CRTeaching in the classroom to develop empathy and cultural caring. Third, I define Communities of Practice, which serve as a structure for educators in a book study to find support and encouragement in one another to implement better practices in the classroom. I also review research investigating book studies as an educational intervention to help change educators' thinking and skills.

Critical Race Theory, Belonging, and Research Related to Equity Gaps

CRT informed much of my work in studying equity gaps at EMCC. As a framework, it examines and attempts to explain inequities that have existed for centuries in the United States and other parts of the world. Critical race theorists argue that many

of the inequities in the United States can be explained by systemically racist institutions and laws. The concept of intersectionality, another vital facet of CRT, describes how several identifying factors or dimensions of a person (e.g., race, class, gender, sexual orientation, disability) can intertwine and influence their status in the culture as well as general inequity (Carbado et al., 2013). The concepts of CRT and intersectionality have been researched and applied in various contexts, including law, education, and other systems, to explain how racism is embedded within institutions in the United States (Ledesma & Calderón, 2015; Ladson-Billings & Tate, 1995). Through my research, I have found the following papers significant and relevant to my studies.

Crenshaw (1989) emphasized the importance of considering intersectionality when discussing CRT and that other forms of subordination, such as gender and class discrimination, cannot be ignored when addressing equity gaps in legal and other institutions. These ideas stemmed from the work of Derrick Bell when he wrote about race and racism in American law (Bell, 1973; Cobb, 2021). Then, Barnes (1990) suggested that CRT practitioners often integrate their experiential knowledge of the world into their work and that this work aims to transform a world where White supremacy and privilege persist. CRT also challenges the dominant discourse of Westernized ideas in educational institutions, often begging CRT theorists to question how some may use educational policy to oppress certain racial and ethnic groups.

Next, Guinier (1991) posited that CRT applied to voting and electoral systems. She argued that on most occasions, racial groups considered "clear minorities" would only be able to have their voices heard if their voices were counted more than their actual numbers. Then, in 1995, Ladson-Billings and Tate presented CRT to explain education

inequities. Building from the idea that race and racism play critical roles in dominating power dynamics in the United States, Ladson-Billings and Tate's work was pivotal in starting an open conversation among educators about the importance of race and experience in education. They argued that CRT was important for understanding education, as it emphasized that racism is the status quo in many institutions, including education, instead of an outlier that occasionally needs to be avoided, as some politicians have suggested.

Solórzano (1998) later used CRT as a lens to examine the experiences of Chicana and Chicano student scholars in higher education. Solórzano used previous CRT research in K-12 education to expand to higher education and students' educational and professional experiences. Solórzano posited that intersectionality, knowledge of dominant ideology, commitment to social justice, and experiential knowledge are central to studying CRT. He emphasized the importance of the lived experience, particularly of students of color, who may have been underestimated or discriminated against in their college experience, which gave scholars a unique perspective on the role of race in education, particularly for college students. Solórzano highlighted that the social construct of race has shaped many aspects of educational policy and the structures within universities.

Solórzano found three main trends or patterns of racial and gender microaggressions among the graduate students participating in his study. First, many graduate students felt out of place in their academic fields. Second, students felt their professors and advisors had lower expectations for them than other students. Third, students experienced several acts that ranged from microaggressions to explicit acts of

racism or sexism. Microaggressions are subtle, often subconscious, degradations or put-downs that others express verbally or physically to another person. For example, Chicana/o students in the study described receiving comments such as "You speak such good English" or "I don't think of you as Mexican" (p. 125). As an example of this from EMCC, in our Title V Student Experience Research Study, one student noted that she was mocked on campus one day because of the food she brought for lunch, nopales, which is a common ingredient used in many Mexican dishes (Cantú et al., 2022). Solórzano also pointed out that while many experiences faced by Black students may be similar to Chicano/a students, this was not always the case, emphasizing the importance of studying each group of students. Similarly, he pointed out the importance of discussing experiences of racism from the lens of intersectionality, where a Chicana student might face something very different than a White female student or a Chicano student.

Rousseau and Tate (2003) studied high school mathematics teachers' perceptions of students based on race. They found that teachers often deny any relationship between their students' racial or ethnic identities and their achievement in the classroom. Instead, the teachers would say that either no relationship existed, even though one did, or that any existing relationship could be explained by socioeconomic status. These firmly held beliefs prevented many of the mathematics teachers from reflecting on their pedagogies and practices as educators, possibly perpetuating systemic barriers for their students of color. Similarly, I have heard parallel statements from EMCC faculty members regarding the students in their classrooms.

In a ten-year follow-up paper to the original work by Ladson-Billings and Tate (1995), Dixson and Rousseau (2005) reported that while some things had happened

because of CRT in education, more work was still needed. They emphasized that students of color were still disproportionately placed in the lower tracks of education and often afforded fewer opportunities in education and the job market afterward as a result. They also discussed the plea by Ladson-Billings and Tate (1995) for academics to stay within the original application of CRT in legal settings. This would ensure that the original application is remembered and that it continues to influence educational research.

Dixson and Rousseau (2005) also discussed why people claiming color blindness is problematic. They drew upon previous work by Crenshaw et al. (1995) to explain how the term "color blindness" was used in the 1990s to express racial enlightenment but that, in reality, the use of this term perpetuates systemic racism as it ignores the connections that exist between someone's race and their social and economic conditions. Research has also indicated that messaging that one is "colorblind" can predict adverse outcomes among White people; an example is that a White person who expresses themselves as such can have more significant racial bias than one who acknowledges that they see race (Holoien et al., 2012). Similarly, this messaging has also caused stress for people of color, resulting in decreased cognitive performance (Holoien et al., 2012). Suppose a student hears their instructor refer to themselves as colorblind or some other descriptor indicating the instructor does not see the student as a whole. In that case, it can certainly influence that student's ability to succeed in that instructor's class.

Yasso et al. (2009) conducted a study exploring racial microaggressions experienced by Latina/o students at three universities and how these experiences shaped their feelings of belonging. The researchers found three different types of racial microaggressions experienced by Latina/o students at these universities. The first type

23

was interpersonal microaggressions—verbal or nonverbal insults or provocations directed at students by other students, faculty, teaching assistants, or others in the university space. The study provided an example where a student of color asked a professor if they could meet outside of office hours, to which the professor responded that he did not do this. Moments later, the student heard the same professor making plans to meet a White student outside of office hours. The second type was in the form of racial jokes. Multiple students in one focus group reported hearing jokes from White students about food they must enjoy, such as "Taco Bell" and other insensitive remarks about their culture, likes, and dislikes. The third type was institutional microaggressions—formal or informal rules and regulations followed by most or all the authority figures at a university that instill feelings of doubt or alienation in Latina/o students. For example, students learned over time that using any language other than English was often frowned upon or even stopped at the initiation of campus staff, faculty, or other students. Students also reported a general sense of helplessness regarding their professors and did not feel they could connect with any of them on a cultural level. These institutional microaggressions created barriers to students' ability to form community and connections on campus (Yasso et al., 2009). The Title V Student Experience Research team heard similar remarks in our focus groups with EMCC students and in survey responses.

Ackerman-Barger and Hummel (2015) found similar results among students who had completed a nursing program. They conducted focus groups with students of color to determine the barriers they faced as they completed their nursing program. Focus groups were also asked about helpful practices by professors to support and engage students. Students of color in the nursing program reported experiences of exclusion, racism, social

prejudice, having to defend their identities or themselves, and being discouraged from pursuing nursing as a career. After discussing hardships experienced by students of color, the authors described helpful practices and recommendations for college faculty and administration to be more inclusive. Among the recommendations, students reported that it was helpful when faculty members created an inclusive and welcoming classroom environment, offered to mentor students, and were available to students beyond class material. One student who identified as Native American reported that her faculty mentor, also Native American, could connect with her on many levels because of their similar culture and shared experiences. Additionally, students reported that faculty and classmates who encouraged them and offered support beyond classwork were helpful. Students also reported the importance of faculty feedback, such as on assignments. Feedback on assignments requiring extensive writing helped make students feel supported and encouraged them to ask the faculty for further assistance if needed (Ackerman-Barger, 2015).

Haeger and Fresquez (2016) demonstrated, as has been illustrated before, that underserved, first-generation transfer students and students of color are less likely to engage in high-impact practices (HIPs). HIPs include extracurricular activities like clubs and organizations, working in research labs, gaining experience in data collection or analysis, or participating in service learning in or out of class. Students who do not engage in HIPs are also less likely to be retained in classes, persist in future classes, and graduate (Haeger & Fresquez, 2016). These findings could be in large part related to CRT and further supports the hypothesis that students of color are not provided with the same opportunities as White students. One way to increase student engagement in HIPs is to

ensure that all students have opportunities to seek out HIPs early on. Establishing a sense of belonging in students so that they feel supported by both faculty and staff when applying to and engaging in HIPs could also increase student engagement.

In a study conducted by Cerezo and McWhirter (2012), Latino college students participated in the Latino Educational Equity Project (LEEP) program designed to improve social skills and general knowledge about college. The researchers then measured how LEEP and an early awareness of resources on campus like HIPs impacted equity gaps for those students. The researchers created the LEEP intervention, which consisted of a one-day program that lasted 8 hours. The LEEP facilitators were all graduate students of Psychology who also identified as Latino and trained for the LEEP program before the beginning of the sessions. The three main goals of the LEEP program were to (a) build community and adjustment to college, (b) increase critical consciousness (understanding the sociopolitical and cultural forces that shape one's experiences), and (c) increase awareness of cultural congruence (aligning the cultural backgrounds of students with educational content and practices). The researchers found that LEEP helped adjustment to college, but did not affect the other two variables, critical consciousness, and cultural congruence, in a statistically significant way.

James-Gallaway et al. (2020) reported using the Equity and Justice Leadership Academy (EJLA) as a professional development opportunity to address racial equity gaps on their campus from the faculty and staff perspective. They used CRT as a theoretical framework in creating their professional development. The EJLA training was open to all faculty, staff, and administrators. Two major themes emerged. A "pedagogy of love" described participants' willingness to express more care in their classrooms in the future.

"Toward wokeness" described participants' unlearning world views to see how "systems of oppression—issues such as racism, classism, sexism, and heterosexism—have led to structural inequity" (James-Gallaway et al., 2020, p. 4). The authors emphasized that educators must shift gears from a deficit mindset to an asset and equity-conscious mindset. A deficit mindset is when an educator speaks about an equity gap as if the onus falls on the person experiencing the gap. For instance, if one refers to an equity gap as an "achievement" gap, one may think those lower in the gap are lower because they do not try as hard or achieve as much. The researchers found that a deficit mindset, as experienced by faculty, administrators, and staff, lowered their ability to empathize and engage with students. The deficit mindset they cited was rooted in a White supremacist, capitalist patriarchy, and it often ended up influencing students negatively. For instance, a deficit mindset resulted in inequitable student outcomes and racial equity gaps (James-Gallaway et al., 2020).

As outlined above, the implications of CRT and intersectionality have real-world applications to my experience as a faculty member at EMCC. We have served students of diverse backgrounds, including most Hispanic/Latina/o/e students and students of all ages, genders, varying first-generation student status, and religious affiliations. Given that most students at our school are Hispanic/Latina/o/e, we as educators must learn from CRT and incorporate its concepts into our pedagogy. We can start by engaging our students in HIPs, such as culturally responsive and relevant practices, and taking steps to ensure that students feel included and experience rigor in the classroom.

Culturally Responsive Teaching and Related Pedagogies

In addition to incorporating CRT and its concepts, we could better serve students by understanding and applying culturally responsive practices and pedagogies, which are widely studied and have numerous names and definitions. Geneva Gay (2010, 2013) focused her studies on Culturally Responsive Teaching (CRTeaching) and how to develop culturally caring and empathetic faculty members and address their practices in the classroom. Gloria Ladson-Billings (1995a; 1995b; 2014) focused on Culturally Relevant Pedagogy (CRP) as a broad understanding of what educators can do to support students in and out of the classroom. It incorporates students' cultural backgrounds, experiences, and perspectives into teaching and learning. Django Paris (2012) discussed Culturally Sustaining Pedagogy (CSP), which sought to sustain languages and literacies from other cultures, which he posits goes a step beyond relevancy or responsiveness. I have employed all these frameworks in developing my intervention and practices for this dissertation study, and each is discussed more thoroughly in the following sections.

Culturally Responsive Teaching – CRTeaching

In her discussion of CRTeaching and how instructors can behave in more culturally responsive ways, Gay (2013) emphasized the importance of culturally caring for students. For example, she often told her students that she believed in their learning ability. Culturally caring, like empathy, is about caring for instead of passively caring about someone and what they are going through. Gay (2013) provided evidence that culturally caring helps students be successful in several ways. She described a culturally caring environment as one with "patience, persistence, facilitation, validation, and empowerment for the participants" (p. 60). According to Gay (2010), the four

28

components of caring are (a) attending to the person as well as the performance; (b) being action-provoking (e.g., being willing to try new activities or practices in the classroom); (c) being responsive in a multidimensional way; and (d) promoting rigor, effort, and achievement.

Gay also suggested ways in which educators can actualize cultural caring. First, they can learn about ethnic and cultural diversity in education. They can also build both personal and professional self-awareness. One way to build personal and professional self-awareness is through "cultural therapy," coined by Spindler and Spindler (1989). Cultural therapy recommends that teachers deeply reflect on their culture and beliefs and even record themselves interacting with diverse students to reflect on their behaviors, words, and actions. These practices relate to empathy in that the teachers put themselves into the shoes of their students and reflect on how their interactions may impact their students. Another way educators can actualize cultural caring and connection is to engage in continuous dialogues with each other. Singleton and Linton (2006) termed these dialogues "courageous conversations" on race and recommended that educators engage in them frequently.

Culturally Relevant Pedagogy – CRP

In 2014, Ladson-Billings revisited one of her original works that argued that CRP was crucial for helping students succeed. In addition to her discussion of the importance of CRP, she also stressed that practitioners should be open to embracing new phrasing (i.e., culturally sustaining pedagogy [CSP] coined by Paris, 2012) as a way to look forward. Ladson-Billings pointed out that prior researchers typically only studied African American students as objects rather than subjects. She also discussed the terms associated

29

with those students as often deficit-minded, such as "underachieving, and disadvantaged." Her work with a program called First Wave was an example of how CSP allows those involved in teaching and learning to gain a fluid understanding of culture. She also described how CSP goes a step beyond CRP because it does more than encourage educators to understand their students' culture; it also makes them intentionally engage in questions about equity and justice and celebrate diversity.

Ladson-Billings (2016) also outlined three aspects of CRP among teachers and what they emphasized as they taught. These aspects were (a) student learning, (b) cultural competence, and (c) critical consciousness. Student learning is often the primary focus of faculty members in the classroom. Faculty members who engage in cultural relevance should also be able to identify what knowledge students bring into their classroom and how students' learning progresses throughout the semester. Ladson-Billings described that teachers should not comment on the student's goodness (or badness) to parents but instead on the progression of the student's learning. In a college setting, perhaps faculty members should not communicate to students that they are "good" or "bad" but instead consistently communicate how they are doing with the material and progressing with their learning. This can happen through student/teacher conferences, detailed feedback, check-in assignments, and other activities.

The second aspect of CRP identified by Ladson-Billings (2016), cultural competence, emphasizes the importance of understanding one's own culture and having curiosity about and respect for other cultures. Ladson-Billings noted that far too many teachers often come with a mono-cultural perspective and are unwilling to learn about other cultures or experiences. Such curiosity is needed to teach cultural competence to

30

students thoroughly. When students, particularly students of color, understand both their own cultures and the dominant culture, they can more critically look at the dominant discourse, question its existence, and bring about change to create more inclusive environments that celebrate multiple cultures.

Finally, Ladson-Billings (2016) identified critical consciousness (or socio-political consciousness) as the third aspect of CRP. Critical consciousness teaches civic engagement and the complexities of being a human in multifaceted national and international environments. Freire and Ramos (1970) described critical consciousness (or conscientization) as a way for people to become critically aware of their environments and to use reflection and action (praxis) to question and change these oppressive environments. Like praxis, critical consciousness encourages instructors to help their students make sense of the realities in their world (e.g., disproportionate imprisonment and police killings of Black and African American people, presidential candidates claiming that all people from a specific country are criminals).

Culturally Sustaining Pedagogy – CSP

Paris (2012) described the continuation of CRTeaching and CRP in forming CSP. In CSP, as defined by Paris, the tenets of CRTeaching and CRP are applied and expanded on further. Also, in line with CRT, CSP posits that White, upper- and middle-class norms and English speakers implemented the dominant language and cultural practices in education. Deficit language emerged from these traditions to parse out those with diverse or divergent languages, cultures, or backgrounds. CSP conversely emphasizes the importance of different languages, literacies, and cultures and treats those differences as assets in the teaching context. An example of CSP is the Ethnic Studies programs in the

31

Tucson Unified School District (TUSD) in Tucson, Arizona. The program became

nationally recognized as a success but later became national news after being banned

(Santa Cruz, 2010).

In the wake of the program cancellation, Cabrera et al. (2012, 2014) demonstrated

the strengths of various TUSD Ethnic Studies programs, particularly the Mexican

American Studies (MAS) program. Cabrera used regression analyses to compare high

school students who participated in at least one MAS class to students of the same race,

gender, and socioeconomic class who did not take at least one MAS class. The

researchers found that students who took at least one MAS class were significantly more

likely to graduate and performed significantly better on all measures of Arizona's

Instrument to Measure Standards testing.

The teachers in these MAS programs often used "funds of knowledge," as

described by Moll et al. (1992) and later referenced by Paris (2012), as ways for teachers

to support their students. Funds of knowledge refer to knowledge and skills that students

have accumulated over time that reflect their diverse, historically developed bodies of

knowledge. An example of this is when a teacher reflects on how a student who speaks

two or more languages can enrich their classroom by bringing linguistically diverse

perspectives instead of looking at the student as unable to speak as well as their

monolingual peers. When teachers recognize the knowledge that students bring into the

classroom and honor and celebrate it, students are more likely to succeed (Cabrera et al.,

2012; Cabrera et al., 2014; Paris, 2012).

Warren (2018) expanded on these findings by detailing different ways to

implement CRTeaching, CRP, and CSP in the classroom. While he described these

methods as effective ways to help teachers, he also posited the need for more models of how to incorporate ideas directly into the classroom. He suggested that empathy through perspective-taking (i.e., putting yourself in your student's shoes when asking them to engage in learning, try something new, or make a change) is one model that could help teachers be successful with CRP. Aligning with the idea of cultural caring from Gay (2013), teachers can show their students that course content is relevant to their lives, show empathy, and build relationships with their students from the first day of class to increase belonging and inclusion. When students feel that their instructors understand and support their perspective, they are more likely to feel accepted and included in the classroom and with the instructor and other students (Warren, 2018).

In developing my intervention and practices for this study, I noted how I would apply CRTeaching, CRP, and CSP to EMCC. I hope educators at EMCC can learn from these frameworks the importance of connecting with students and the value of ensuring students are comfortable in their learning environment. Further, educators at EMCC need to ensure mutual engagement with critical consciousness, student learning, and mutual empathy among all people at EMCC, including and especially for students. In the classroom, faculty members should help students feel empowered to think critically about the material and apply it to their lives. That is how real learning and growth can occur. To begin this empowerment process, educators should work together and engage in inquiry and reflection on their practices.

Communities of Practice

Wenger (2011) defined communities of practice (CoPs) as more than just groups of people that spend time together. CoPs are groups of people with a common goal of

addressing an issue and sharing a passion about something the group can jointly engage in. Additionally, CoPs are communities because they check in and interact regularly (Wenger, 2011). CoPs are not necessarily a new idea—even the earliest civilizations involved people coming together in various social ways to support one another and tackle problems. However, the study of such groups came about more recently. Lave and Wenger (1998) studied how CoPs can positively influence change efforts at an institutional level, a newer concept in education. Additionally, Wenger et al. (2002) initiated the study of how to cultivate CoPs and make them sustainable.

CoPs also emphasize the ability of those within communities to recognize that knowledge is dynamic and in a constant state of flux (Wenger et al., 2002). For instance, during the COVID-19 pandemic, many higher education institutions needed to quickly solve novel problems and accommodate students working in an entirely new environment. Community colleges are organizations that require constant change and progression. Therefore, these educational systems present a unique opportunity for people to develop their skills and be part of a community in higher education, often with less emphasis on research and more emphasis on teaching and fostering student success. Thus, CoPs within a community college can uniquely support faculty, staff, and students.

According to Wenger (2011), CoPs can change and enhance education in three ways: internally, externally, and through the lifetime of students. Wenger argued that internally, CoPs focus on the makeup of a school by highlighting how the curriculum and resources available to students in the college serve students. Externally, CoPs focus on giving students experiences beyond the classroom through peripheral processes and the use of broader communities. CoPs can also attempt to help students become lifelong

learners. This way, CoPs can develop a love for learning that continues beyond the classroom and formal education. CoPs can also help teachers learn more about each other and support one another in their careers. Different CoPs can also interact with one another through shared practices, overlapping boundaries, shared peripheral participants, connections between groups, and encounters.

At EMCC, many established groups exist among faculty of various disciplines, administrators and faculty, and staff and faculty, and each group has something to offer to the school. Among my goals for this study was to learn about the various established communities, create a professional development opportunity for participants, and help myself and other participating educators improve their practices.

For educators at EMCC to truly learn about culturally responsive activities and practice being more empathetic in the classroom, I propose designing and implementing a professional development intervention guided by CoP tenets—specifically, a book study for educators. In the following section, I review research on the effects and merits of book studies as professional development programs.

Book Studies: Influencing Teacher Change

Professional developments have been studied widely regarding how they can produce teacher change, particularly what motivates teachers to engage in change and how it can genuinely occur (Guskey, 2010). When investigating instructor change and development, researchers have found that new instructors are the most likely and willing to learn and try new things; however, this willingness and flexibility wanes with time and experience (Woolfolk & Spero, 2005). Instructors with less experience also report reduced self-efficacy in teaching and classroom management (Carter et al., 1988).

35

Additionally, instructors who work in silos possess lower self-efficacy for teaching (Woolfolk & Spero, 2005). Book studies or reading groups are one way to address the need for instructors to learn cooperatively with one another and engage in new material that can transform their teaching behaviors in the classroom and their interactions with students generally.

My action research intervention was a book study of Culturally Responsive Teaching and the Brain: Promoting Authentic Engagement and Rigor among Culturally and Linguistically Diverse Students by Zaretta Hammond. This book covers the theoretical frameworks of CRT and CRTeaching and discusses how students who experience feelings of belonging and inclusion are more likely to learn. The book also describes how students will not learn when they are not supported through CRTeaching due to the influence that microaggressions and other exclusionary practices can have on their brains. Lastly, the book explores ways instructors can engage in CRTeaching and provides ideas for activities and pedagogies that instructors can use.

Teacher book clubs or book studies have been used for decades to create a space for teachers to learn and engage one another mutually about practices and pedagogies. Flood et al. (1994) investigated how a book club among schoolteachers and preservice teachers influenced their understanding and sensitivity toward multiculturalism. The researchers decided on a book club for various reasons; one was to encourage personal responses to the readings and create a space where such responses could be valued and encouraged. The participants read books by authors such as Sandra Cisneros, Amy Tan, and Toni Morrison. The researchers then examined how the teachers processed the books and related discussion to the book or themselves. They also measured to what degree the

teachers planned to transform their learnings from the book club into classroom instruction. They reported that the instructors had an overall positive experience, that their plans for instruction changed (interestingly, more so for student teachers than for practicing teachers), and that their understanding of multiculturalism increased.

Like book clubs, teacher study groups are another popular professional development option where teachers can read a book or articles with peers that focus on a common problem. Hung and Yeh (2013) explored the effects of a teacher study group by having teachers design a curriculum around Reader's Theater (RT). RT is a method where a reader dramatically reads a script aloud to understand the content better. In addition to having the teachers design the curriculum, teachers also did RT to better understand it as a teaching tool for students. The teachers in the study formed study groups with other readings and discussed their contexts, their students' contexts, and their use of RT. The researchers found that the participants changed their pedagogies and behaviors and attributed this to their study groups' collaborative and inquisitive nature.

In addition to being the central part of an intervention, book studies are often included in more extensive interventions and studied in that context specifically for their effects on constructs such as teacher self-efficacy. For instance, Gaudreau et al. (2013) examined the effects of various types of in-service training on teacher self-efficacy, specifically regarding classroom management. To measure differences, the researchers compared participants in the training to a wait-list control group of teachers. They found that participants in the training developed increased self-efficacy for general instruction and classroom management, which was one of the highlighted themes of the training. In their analyses, the researchers proposed that this change occurred in the participants

because the training emphasized collaboration and reflection on teacher practices. Book studies encourage such behavior because participants are asked to engage with the material, reflect on their practices, and apply what they read to their contexts.

My action research dissertation applied work developed from CRT to help explain why equity gaps at EMCC exist. The students at EMCC, as suggested through our Title V Student Experience Research Study, have differential experiences on our campus related to experiences of microaggressions based on race and ethnicity. These differential experiences and lower feelings of belonging and inclusion may explain why some students of color are not performing as well on traditionally measured success outcomes such as grades, retention, and graduation. To address this problem of practice, I created a professional development opportunity that incorporated CRT, CRTeaching, CRP, and CSP frameworks. The purpose was to support educators in developing a culturally responsive and sustaining classroom that encourages cultural caring and empathy while maintaining rigor. The best way to create a dialogue with as many educators at EMCC as possible was through a book study focused on CRTeaching, and fostering a community of practice among the participants to encourage them to discuss and apply these practices in their classrooms. The book study CoP allowed participants to think critically about their practices while being supported by other educators with similar interests and goals. The following chapter provides a detailed description of the book study intervention and outlines the methods of data collection and analysis I used to measure its effects.

CHAPTER 3

METHODS

"For apart from inquiry, apart from the praxis, individuals cannot be truly human. Knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings pursue in the world, with the world, and with each other."

— Paulo Freire, Pedagogy of the Oppressed

Overview

This chapter describes the setting, participants, intervention, mixed methods research approach, and the timeline I followed for my dissertation. Butin (2009) discusses the dissertation as a skill set, not an answer. I highlight this point as a student, teacher, and lifelong learner. Going into this action research, I planned to learn while doing, adjust based on what I learned, and, where possible, educate those within the context of my findings. Butin emphasizes the need for continual processing and reflection. This action research project aimed to apply those concepts directly. Mertler (2019) also underscores the importance of bridging professional development and professional reflection; for instance, this implies that someone doing action research must continuously reflect on the data they have collected and how those data will inform future iterations of their work. These components of an action research project are critical. As discussed in Chapter 1, this research was shaped by three previous studies and was, therefore, iterative. In this chapter, I describe what I did for my action research that implemented a research-based professional development intervention and required participants to reflect professionally on their experiences. The goal of this reflection was to help participants grow by learning from one another. The following are the research questions that guided my research.

39

Research questions

RQ1. After participating in a Culturally Responsive Teaching and the Brain (CRT-B) book study, to what extent are there changes in self-efficacy for…

    a.   teaching in culturally responsive ways, and

    b.   cultural caring and empathy with students?

RQ2. After participating in a CRT-B book study, what descriptive changes do participants experience in…

    a.   self-efficacy for teaching in culturally responsive ways, and

    b.   engagement in cultural caring/empathy with students?

RQ3. How and to what extent do student belonging and inclusion in the classroom change following their instructor's participation in a CRT-B book study?

Setting

This research was conducted in the spring, summer, and fall semesters of 2023 at Estrella Mountain Community College (EMCC) with educators from various disciplines and departments. As mentioned, EMCC is one of the Maricopa Community Colleges located in the west valley of the Phoenix area. We serve nearly 10,000 students a year and are a learning college devoted to making learning possible anywhere and anytime. I am a residential Psychology instructor at EMCC and primarily teach Psychology Statistics and Biopsychology classes. Based on data from 2022, EMCC has 822 employees, 93 of whom are residential and 425 adjunct faculty members. EMCC has 12 academic divisions: Arts & Composition, Behavioral Sciences, Communication and Cultural Studies, Counseling, Instructional Computing, Languages, Library, Life Sciences, Mathematics, Nursing, Occupational Education, and Physical Sciences.

Participants

There were adjunct and residential faculty members from five different divisions and one staff member who educates and tutors students in this study. Following approval of the ASU Institutional Review Board (see Appendix A and B), I invited the entire population of faculty members at EMCC to participate in the CRT-B book study by contacting them via an invitation email. In the invitation email, I briefly described the study I intended to complete and informed individuals that participation is voluntary. The invitation email also described the incentives for the study and asked any instructors interested to respond with their names, contact information, and a list of the classes they teach. The incentives for participation in this study were Hammond's book offered to the first five instructors who committed to participate in the book study and associated measures and $50 honorariums for any adjunct and residential faculty members who completed all the book study sessions. The invitation email is provided in Appendix C. To maximize inclusion and participation, I designed the book study to be hybrid, in-person on the EMCC campus and online through Google Meet.

In October 2022, I sent an interest form to EMCC residential and adjunct faculty members and received interest from 12 instructors. I also informed adjunct faculty members in the Behavioral Sciences division of my upcoming dissertation during our Evening of Learning in January 2023. This event was designed for adjunct faculty members to attend and get updates on the campus and anything new in the teaching and learning expectations of the college. After completing these recruitment procedures, I received interest from 17 faculty members and one staff member, a tutor who also taught at another institution. After discussing the possibility of including this staff member with

my chair, we decided to have this person participate in the study. While they do not officially teach a class at EMCC, they are still student-facing and frequently support student learning. The participants represented various subjects and divisions at EMCC. Some of the participants also reported having already engaged students in culturally responsive activities in their classrooms.

<h2 style="text-align:center">Role of the Researcher and Positionality</h2>

I am a White woman with European and Hispanic heritage who was raised in the United States in an upper-middle-class household, guided by two supportive and loving parents. Recognizing the privileges inherent in my role as residential faculty and stemming from the intersectionality of my various identities, I am committed to ongoing learning and self-adjustment. Throughout my dissertation program, I learned that this is also referred to as "praxis" in education and identified strongly with its tenets. I attempt to remain mindful in my research that my perspectives and actions are influenced by my lived experiences and what I know, and that what I know is shaped by who I am and how I was raised.

For the last decade, I have worked in higher education, supporting students in and out of the classroom via teaching, researching, and advising clubs. I was a graduate student in the Psychology, Cognition, and Neural Systems program at the University of Arizona. I was a research assistant, teaching assistant, and instructor of record for Introduction to Psychology and Sleep and Sleep Disorders. In these roles, I taught and learned alongside undergraduate students in the research lab and classroom. In 2015, I moved to Phoenix and started teaching at EMCC. I teach several classes and engage students in undergraduate research through the Psychology Club and Psi Beta Honor

Society. My passion is educating people from all walks of life; I got this passion from my parents and grandparents, who instilled in me at an early age an understanding of the power of education and the importance of personal growth to better oneself and to help uplift others.

The primary paradigms I follow in my research are critical, reminding me to remain aware that systems are designed to serve specific populations and to question how such systems are developed, and constructivist, considering that reality is constructed by each person differently based on their lived experiences and perceptions. Evidence indicates inequities exist in many institutions across the United States and the world, including education (Cahalan et al., 2021). Further, inequities due to race and ethnicity persist when controlling for other factors, such as socioeconomic status, when it comes to educational success (Chetty et al., 2020). Given these findings, I aim to study inequities by utilizing critical theory and from the standpoint of constructivism.

I have studied equity gaps at EMCC for several years and want to learn more about the inequities that our students, particularly those of color, face. Additionally, I was curious about how changes, large or small, in instruction and content delivery by educators can increase student belonging and engagement and, ultimately, their success. I was a participant, observer, and researcher in this action research. I decided to take on the participant/observer role to engage actively with the other participants in the intervention. I designed and facilitated the CRT-B book study for a hybrid environment wherein participants engaged with one another online and face-to-face three times throughout the summer of 2023.

The book study used supplementary materials provided by the CRT-B companion website that Zaretta Hammond provides in her book. I promoted discussion during the CRT-B book study by asking participants to share personal activities or practices to create a sense of belonging for their students. I also asked questions about the book to prompt reactions and reflections on the readings. I participated in the discussion and facilitated the sharing of notes and ideas. In addition to actively participating in this study, I collected data about the CRT-B book study via audio recordings of the book study sessions, survey responses, and semi-structured interviews with participants following the book study.

Intervention

The intervention was a professional development book study that utilized a community of practice approach for participants to learn from each other to implement culturally responsive activities with students in and out of the classroom. The book study employed the book *Culturally Responsive Teaching and the Brain: Promoting Authentic Engagement and Rigor among Culturally and Linguistically Diverse Students* by Zaretta Hammond. The book's inclusion of neurological and biological topics pairs nicely with my training in biopsychology. Hammond's description of relevant literature and recommendations for pedagogical changes also made this book an excellent option for creating authentic, positive change among educators at EMCC.

In addition to discussing the book and recommendations for increasing CRTeaching, this intervention addressed findings from the Title V Student Experience Research Study that investigated equity gaps on campus and revealed that our students of color, in particular our Black/African American students, were retaining, persisting, and

graduating at a significantly lower rate than their White peers (Cantú et al., 2022). The

intervention spanned three different sessions to discuss the book. I requested that

participants attend in person or online using Google Meet. The three sessions were each

approximately one and a half hours long, with some people staying afterward to continue

the discussion. I also asked all the participants (virtual and in-person) if I could audio

record the book study sessions, and everyone consented. I recorded the audio on my

phone recording microphone. When the official book study session ended, I ended the

recording.

The book has the following outline:

Part I: Building Awareness and Understanding

1. Climbing Out of the Gap

2. What's Culture Go to Do with It?

3. This is Your Brain on Culture

4. Preparing to Be a Culturally Responsive Practitioner

Part II: Building Learning Partnerships

5. Building the Foundation of Learning Partnership

6. Establishing Alliance in the Learning Partnership

7. Shifting Academic Mindset in the Learning Partnership

Part III: Building Intellective Capacity

8. Information Processing to Build Intellective Capacity

9. Creating a Culturally Responsive Community for Learning

10. Epilogue

At the end of each chapter, a section entitled "Invitation for Inquiry" provides prompts for discussions. The companion website for the book also contains a study guide and other helpful information to support anyone doing a book study, and I utilized those resources at meetings as well. For a more detailed example of an intervention session, see Appendix D.

Data Collection Methods Overview

I collected quantitative and qualitative data for this study as part of a concurrent, mixed methods approach (Creswell & Guetterman, 2019). I administered an Educator Survey pre- and post-intervention to the participants of the CRT-B book study. By asking Likert-scale questions (Likert, 1932), the Educator Survey assessed participants' self-efficacy for teaching in culturally responsive ways and cultural caring/empathy with students (RQ1a and RQ1b). For this study, I combined cultural caring and empathy as one construct to measure how well participants connect and empathize with their students, given their diverse cultural backgrounds. This construct combined Gay's cultural caring (2013) with Warren's empathy and perspective-taking (2018).

I also collected qualitative data by asking open-ended questions in the Educator Survey and conducting semi-structured interviews with four participants. My interview questions assessed participants' self-efficacy for teaching in culturally responsive ways and cultural caring/empathy (RQ2a and RQ2b). I also took field notes while observing and participating in the CRT-B. These notes helped triangulate the quantitative and qualitative data I found.

To learn more about how the CRT-B influenced student belonging, I also deployed a Student Survey to assess student sentiments regarding inclusion and

belonging in participating faculty members' classes (RQ3). This survey contained Likert-scale questions (Likert, 1932) and open-ended questions about the student's classroom experiences with the participating faculty members. This mixed methods approach helped triangulate findings from educators and students about the effectiveness of a book study on teaching in culturally responsive ways, employing cultural caring/empathy, and increasing study belonging and inclusion. In the next section, I provide detailed descriptions of my research instruments using the research questions as an outline.

Instruments

Research Question One - Educator Survey

The first research question was framed to quantify the extent of changes that occurred after the CRT-B book study in participants' self-efficacy for CRTeaching and cultural caring/empathy with their students. To that end, I administered the Educator Survey to participants pre- and post-intervention. I provided the survey to participants electronically via Google Forms. The survey integrated questions adapted from the Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) developed by Siwatu (2007). Siwatu (2007) designed the CRTSE scale using the Culturally Responsive Teaching Competencies scale (Siwatu, 2006) and Bandura's (1977) self-efficacy construct. Siwatu (2007) designed the CRTSE to determine teachers' self-efficacy for engaging in certain teaching practices aligned with CRP. The original scale had 40 Likert-style items in which participants were asked to rate how confident they were in their ability to engage in specific CRTeaching practices (e.g., "I am able to identify the diverse needs of my students") by indicating a degree of confidence ranging from 0 (*no confidence at all*) to 100 (*completely confident*). Siwatu (2007) combined all the

participants' responses to create a total score. Participants with higher scores on the CRTSE were considered more confident in their abilities than those with lower scores. In my adapted version, I used 5-point Likert-scale questions ranging from 1 (*not at all confident*) to 5 (*extremely confident*) to obtain results with less variability, given that I had a smaller sample size.

I adopted and adapted CRTSE questions for the Educator Survey by being mindful that my respondents were educators of college students. For example, I removed language about parents or school buses while keeping some questions about home life. I used this adapted version in the Culturally Relevant Curriculum Toolbox (CRCT) Study discussed in Chapter 1. After analyzing the results of the CRCT Study, I categorized the self-efficacy questions into three different sub-constructs: (a) self-efficacy for general instruction, (b) self-efficacy for CRTeaching, and (c) self-efficacy for cultural caring/empathy. I continued to use these constructs to analyze the CRT-B book study intervention.

An example of a self-efficacy for general instruction question asked participants about their confidence in their ability to measure student learning using various types of assessments. An example of a self-efficacy for CRTeaching question asked about confidence in the ability of the participant to design a classroom environment using displays that reflect a variety of cultures. Lastly, an example of a self-efficacy for cultural caring/empathy question asked about confidence in the ability of the participant to put themselves in their students' shoes, particularly students with different cultural backgrounds. The Educator Survey also included demographic questions (e.g., age, years teaching, employment status, race/ethnicity, gender identity, first-generation student

status, languages spoken, and highest academic degree). In the Educator Survey, five survey items addressed the first construct, self-efficacy for general instruction, and 18 items addressed the second construct, self-efficacy for CRTeaching, both of which were related to RQ1a. Additionally, seven survey items addressed the last construct, self-efficacy for cultural caring/empathy, related to RQ1b. To view the complete Educator survey that I used to address the first research question, see Appendix E.

Research Question Two - Semi-structured Interviews

In addition to the Educator Survey, I conducted semi-structured interviews with participants after the conclusion of the CRT-B book study to qualitatively assess self-efficacy for teaching in culturally responsive ways and intent to engage in cultural caring/empathy. CRTeaching promotes positive outcomes such as student learning, cultural competence, and positive relationships (Ladson-Billings, 2016). I designed the semi-structured interview questions to investigate these constructs in addition to cultural caring/empathy. An example of an interview question asked the educators how the CRT-B book study affected their teaching and students in the classroom and if they saw changes in things such as (a) students' learning, (b) students' awareness of cultures other than their own, and (c) students' ability to think critically about social issues or global issues. See Appendix F for the semi-structured interview questions I used in this study.

I conducted the semi-structured interviews in Fall 2023, interviewing four participants about their experiences. I asked all the participants who completed the intervention to participate in the interviews. Six people expressed interest in participating in interviews; one could only attend some of the book study sessions, and another has a leadership role on campus that aligns with professional development formation and

participation, so I opted not to interview those two. The interviews ranged from 45 minutes to over an hour and were audio-recorded after the participants consented. I conducted the interviews virtually using the Zoom platform. I used the microphone on my personal computer to audio record the interviews and the Zoom transcription services to generate each interview transcript.

I also took field notes throughout the CRT-B book study and kept memos during my analysis. These notes and memos were supplementary materials to the quantitative and qualitative data I collected before and after the book study. My field notes, and the book study session recordings helped to triangulate findings and shape my discussion around the results yielded from the surveys and interviews.

Research Question Two – Open-ended Responses in Educator Survey

The second research question was designed to qualify any changes that might occur after the CRT-B book study in participants' self-efficacy for CRTeaching and their level of engagement in cultural caring/empathy with their students. The Educator Survey (Appendix E) I outlined above also contained two open-ended prompts about how the intervention affected instructors' self-efficacy for teaching in culturally responsive ways and their engagement in cultural caring/empathy with their students. The following are the two open-ended prompts that participants were asked only in the post-intervention Educator Survey:

1. Describe, in as much detail as possible, how the book study affected your ability to teach and relate in culturally responsive ways. Please use examples when you can.

2. Describe, in as much detail as possible, how the book study affected your engagement/intent to engage in cultural caring/empathy with your students (e.g., have you noticed yourself taking the perspective of your students more recently?). Please use examples when you can.

Research Question Three - Student Survey

Quantitative Questions in Student Survey

The third research question asked if the CRT-B book study intervention influenced changes in student belonging and inclusion in a mixed-methods approach. To address this question, I asked the instructors who participated in the CRT-B book study to administer the Student Survey, which addressed belonging and inclusion. I asked that they administer this measure to their students in the spring and again in the fall of 2023 after completing the CRT-B book study. To address how much the CRT-B book study influenced student belonging and inclusion, the first thirty items of the Student Survey included questions adapted from the Sense of Belonging Survey by Hoffman et al. (2002). In designing their survey, the researchers asked students how much they agreed with statements about peers, instructors, and their school using questions on a five-point item scale from "*completely true*" to "*completely untrue*" (1 = *Completely True*, 2 = *Mostly True*, 3 = *Equally True and Untrue*, 4 = *Mostly Untrue*, and 5 = *Completely Untrue*). The researchers discovered five primary constructs from the initial responses using factor analysis: perceived peer support, perceived classroom comfort, perceived isolation, perceived faculty support/comfort, and empathetic faculty understanding. For this study, I utilized only questions from the two final constructs relating directly to faculty: perceived faculty support/comfort, and empathetic faculty understanding.

51

Approximately half of the Student Survey questions addressed faculty support/comfort (16), and the other half addressed empathetic faculty understanding (14).

I also adapted the Likert-scale items from Hoffman et al. (2002) to be more easily understood by students. The Student Survey asked about students' level of agreement on a 5-point scale ranging from "*strongly disagree*" to "*strongly agree*." An example of a survey item that addressed perceived faculty support/comfort prompts students to indicate their level of agreement about how comfortable they are seeking help from the instructor before or after class. An example of a survey item that addressed empathetic faculty understanding prompts the students to indicate their level of agreement that their instructor would not pass judgment on them if they told the instructor about a personal problem.

Qualitative Questions in Student Survey

To investigate *how* the CRT-B affected change in student belonging and inclusion, the Student Survey included three open-ended questions at the end of the survey asking students about how their instructor creates a space for inclusion and belonging. An example of an open-ended question asked students to share about a time when their instructor made them feel like they belonged in the classroom. To see the complete Student Survey that I used, see Appendix G.

Data Analysis Methods

Research Question One – Educator Survey Quantitative Data Analysis

I applied descriptive and inferential statistical analyses on the quantitative data from the Educator Survey (RQ1a and RQ1b) using IBM SPSS Statistics (Version 28). After initial data collection, I cleaned the data and removed any timestamps and other

possibly identifying data pieces. I organized the data into three constructs: self-efficacy for general instruction, self-efficacy for teaching in culturally responsive ways, and self-efficacy for cultural caring/empathy. To do so, I calculated each participant's average on each construct by taking the mean of all the items that inquired about that construct. For instance, there were seven survey items for the construct of self-efficacy for cultural caring/empathy, so to get one score for each participant on this construct, I calculated the mean across all seven items on that construct for that participant.

After calculating the mean across the survey items for each construct to get three different scores for each participant, I ran descriptive statistics and the nonparametric equivalent to a dependent means t-test – the Wilcoxon test – between the pre- and post-intervention responses. I did this to assess any significant shifts in participants' self-efficacy for general instruction, self-efficacy for teaching in culturally responsive ways, and self-efficacy for cultural caring/empathy.

Research Question Two - Qualitative Data Analysis

Educator Interviews

I transcribed the interviews with Zoom's free transcription software. I then reviewed the transcripts thoroughly while listening to the recordings to make edits and check for typos or errors. I also removed any extra timestamps that Zoom generated while the participant spoke. I initially coded the semi-structured interviews via line-by-line coding quantification of the most common phrases and words using HyperRESEARCH (2015). I analyzed all four interviews and open-ended survey responses with open, in-vivo, and thematic coding. In-vivo coding allowed me to derive codes from the data itself. I then utilized the language and terminology that the

53

participants used to build codes in a bottom-up fashion. I used this approach to determine

principal themes and theoretical pieces that I then analyzed and compared with the

written responses from the Educator Survey, my quantitative results, and my field notes

(RQ2a and RQ2b; Thornberg & Charmaz, 2014).

In addition to the in-vivo coding, I used CRTeaching, CRP, and CSP as thematic

frameworks to look for themes surrounding those topics in the interviews (Given, 2008).

Gay (2008) emphasizes that teaching should be inclusive, promote rigor and positive

relationships, and use varied assessments. Ladson-Billings (2016) outlined three aspects

of CRP among teachers: (a) student learning, (b) cultural competence, and (c) critical

consciousness. I used these concepts as a framework for coding the transcribed interview

data and written responses from the post-intervention Educator Survey. For instance, if a

participant reported that the CRT-B book study led them select readings for their class

from a variety of cultural perspectives to ensure a more open and inclusive learning

experience for their students, this would be coded as cultural competence.

After coding, I completed two transition processes using code mapping and code

landscaping to understand the qualitative data further. I used code mapping with the in-

vivo codes that emerged from the data, and I analyzed the in-vivo codes and the thematic

codes with code landscaping to determine which codes were used most frequently and by

whom.

The field notes I took during the CRT-B book study sessions and the debriefing

voice notes I recorded after the fact acted as items to triangulate my quantitative and

qualitative data further. However, I did not use a specific analysis method for these notes.

The reasoning behind this was that my primary qualitative data analysis focused on the interviews and the open-ended questions on the post-intervention Educator Survey.

Educator Survey Open-Ended Responses

I collected all the written responses from the post-intervention Educator Survey data via Google Forms. I initially coded the participants' responses via line-by-line coding using Google Sheets. I did so by choosing in-vivo words and phrases mentioned multiple times and then searched for those and color-coded the responses based on the themes that those in-vivo codes aligned with most. Following this in vivo line-by-line coding, I reviewed each educator's response and compared their written responses to themes I originally picked to guide my coding (e.g., CRTeaching and CRP). I used this approach to determine primary themes and theoretical pieces.

Research Question Three - Student Survey

Student Survey Quantitative Responses

I applied descriptive and inferential statistical analyses on the Student Survey (RQ3) data using IBM SPSS Statistics (Version 28). After initial data collection, I cleaned the data and removed any timestamps and other possibly identifying data pieces. I also organized the data by the student constructs. This approach mirrored my process for the Educator Survey outlined above. I organized the data into two constructs: perceived faculty support/comfort and empathetic faculty understanding.

After getting two scores for each student by calculating the mean across all the survey items for each construct, I ran descriptive statistics and independent samples t-tests. The independent samples t-tests were to compare student responses on both constructs, perceived faculty support/comfort, and empathetic faculty understanding

between the spring and fall 2023 responses to assess any significant differences in student belonging and inclusion in the classroom before and after an instructor completed the CRT-B book study.

Student Survey Open-Ended Responses

I collected all the written responses from the Spring 2023 data for the student qualitative data via Google Forms. I initially coded the student responses via line-by-line quantification of the most common phrases and words using the auto code feature in HyperRESEARCH. This in-vivo coding allowed me to derive codes from the data itself, and I then utilized the language that the students used to build codes in a bottom-up fashion. After coding hundreds of lines of data and generating thousands of auto codes, I discovered it would be more efficient to code the phrases and sentences using Google Sheets, search the words and phrases related to specific themes, and then color code based on those themes. Following this coding method, I reviewed each student's response that had not already been coded as a specific theme and either broadened the words or phrases that could be considered part of a particular theme or created a new one. I used this approach to determine primary themes and theoretical pieces that I then analyzed and compared with the Fall 2023 student written responses (RQ3; Thornberg & Charmaz, 2014).

For the Fall 2023 student qualitative data, in addition to auto-coding the data using the themes from the Spring 2023 student data analysis, I also looked for new themes in the data. I did so by reviewing the literature on student belonging. I also used topics that came up during the CRT-B book study and instructor interviews to analyze any qualitative feedback from students further.

Timeline & Procedure

My dissertation research began after my proposal defense and comprehensive exam in March 2023. Before then, I prepared all the instruments and prepared for my proposal defense. Beginning in March 2023, I began the IRB approval process and started to recruit participants. I also administered some pre-intervention assessments to instructors and students in April 2023. The CRT-B book study intervention occurred during the Summer of 2023. In Fall 2023, I gave post-intervention assessments to educators and students and analyzed the qualitative and quantitative data. Finally, I analyzed data and determined results before defending my dissertation in March 2024. Table 1 outlines the major project events and when they occurred.

Table 1

Timeline of Dissertation Intervention and Measures

Time Period	Actions	Procedures
January – February 2023	Created intervention and measures Finalized dissertation proposal	• Attended college meetings to inform possible future participants of the CRT-B book study • Prepared study instruments • Finalized chapters 1-3 of dissertation proposal
March 2023	Dissertation proposal	• Successfully proposed dissertation and completed the Oral Comprehensive Exam
April – June 2023	IRB approval Distribute pre-intervention Educator Survey and Spring 2023 Student Survey	• Finalized instruments • Submitted IRB • Prepared CRT-B book study • Receive IRB approval • Distributed consent forms and letters to all participants who volunteered for CRT-B book study • Administered pre-surveys to instructor volunteers • Asked instructors to administer Student Survey to their students

July – August 2023	Conducted CRT-B intervention and began conducting participant interviews	• Conducted CRT-B book study
		• Collected data from participants
		  ○ Any pre-surveys for educators that signed up after May
		  ○ Conducted one interview

September – October 2023	Collected Fall 2023 student data and analyzed data	• Analyzed Spring 2023 student data
		• Analyzed pre-intervention Educator Survey
		• Collected data from educator participants
		  ○ Conducted three more interviews
		  ○ Collected post-intervention Educator Survey data

November – December 2023	Analyzed data	• Analyzed post-intervention Educator Survey data • Analyzed Fall 2023 student data
January – March 2024	Finalized dissertation	• Wrote results and completed chapters 4 and 5 of dissertation
March 2024	Dissertation defense	

CHAPTER 4

RESULTS

"All instruction is culturally responsive.
The question is, to whose culture is it responding?"

— Zaretta Hammond

Overview

This chapter presents the study's results using the research questions as the

organizational basis for the findings. In my research, I evaluated qualitative and

quantitative data and used a convergent mixed methods action research approach to

analyze the data (Creswell & Guetterman, 2019). As discussed in Chapter 1, this research

is iterative, as it was based on three previous studies. In the first two cycles of research, I

found that the equity gaps demonstrated at EMCC for students of color may be partially

caused by their different experiences on our campus (e.g., lower sense of belonging and

increased experiences of discrimination). Consequently, I hypothesized that improving

the understanding of culturally responsive teaching practices among instructors could, in

turn, increase students' sense of belonging. Unfortunately, decreasing or eliminating

experiences of discrimination for these students is beyond the scope of this study,

although it will be important to address to reduce the equity gaps on which this

dissertation is focused. I also discovered that educators on our campus are interested in

learning more about culturally responsive teaching and crave more connection with

fellow educators.

Given the previous findings, I designed this dissertation to utilize a book study

using *Culturally Responsive Teaching and the Brain* by Zaretta Hammond. The study

was partly based on the tenets of Communities of Practice (CoPs) (Wenger, 2002).

Through the study, I aimed to increase educator knowledge and self-efficacy for teaching in culturally responsive ways (CRTeaching) and support empathy in the classroom for all students, particularly students of color, concerning their feelings of belonging and inclusion. The following research questions were central to this study:

RQ1. After participating in a Culturally Responsive Teaching and the Brain (CRT-B) book study, to what extent are there changes in self-efficacy for…

    a. teaching in culturally responsive ways, and

    b. cultural caring and empathy with students?

RQ2. After participating in a CRT-B book study, what descriptive changes do participants experience in…

    a. self-efficacy for teaching in culturally responsive ways, and

    b. engagement in cultural caring/empathy with students?

RQ3. How and to what extent do student belonging and inclusion in the classroom change following their instructor's participation in a CRT-B book study?

Review of Mixed Methods Approach

I collected quantitative and qualitative data for this study as part of a concurrent, mixed methods approach (Creswell & Guetterman, 2019). I administered the Educator Survey pre- and post-intervention to participants of the CRT-B book study. The Educator Survey assessed participants' self-efficacy for teaching in culturally responsive ways, cultural caring/empathy with students, and general instruction (RQ1a and RQ1b). I combined cultural caring and empathy as one construct to measure how well participants connect and empathize with their students, given their diverse cultural backgrounds. This

construct combined Gay's cultural caring (2013) with Warren's empathy and perspective-taking (2018).

I also collected qualitative data by asking open-ended questions on the Educator Survey and conducting semi-structured interviews with four of the participants. The open-ended and semi-structured interview questions assessed instructors' self-efficacy for teaching in culturally responsive ways and their engagement in cultural caring/empathy with students (RQ2a and RQ2b). I also took field notes while observing and participating in the CRT-B book study, which helped to triangulate my quantitative and qualitative data.

To learn more about how the CRT-B book study influenced student belonging, I also deployed a Student Survey to assess sentiments regarding inclusion and belonging among students enrolled in participating faculty members' classes (RQ3). This survey had scaled and open-ended questions about the students' classroom experiences with the participating faculty members.

This mixed-methods approach helped triangulate findings from both instructors and students about the effectiveness of a book study on teaching in culturally responsive ways, engaging in cultural caring/empathy, and increasing belonging and inclusion. The next section provides the results of data analyses using the guiding research questions as an outline.

Research Question One: Educator Quantitative Results

Research question one investigated the extent to which participants experienced changes in the constructs of self-efficacy for CRTeaching, general instruction, and cultural caring/empathy after participating in the CRT-B book study. In this section, I

outline the reliability measures I performed on the Educator Survey, the demographic

characteristics of the participants who took both the pre- and post-survey, and the

differences in the constructs above from pre- to post-survey.

Demographic Data

Ten participants completed both the pre- and post- Educator Surveys. In addition

to responding to questions about self-efficacy for CRTeaching and cultural

caring/empathy, respondents provided information about their position at EMCC, the

number of years they have been teaching (at EMCC or elsewhere), their gender, age,

ethnicity, race, first-generation student status, languages spoken, and academic level. The

group was mostly comprised of "appointive" residential faculty members (residential

faculty for five or more years who have completed their probationary period), and

"probationary" residential faculty members (residential faculty members within their first

five years of teaching).

The participants had a mean age of 43.8 years ($SD = 8.0$) and had a mean of 13.7

years of teaching experience ($SD = 6.7$). The group was mostly comprised of non-White

Hispanic/Latina/o/e faculty members and White faculty members. The participants were

primarily women and primarily had Master's degrees as their highest degrees. Table 2

contains all of the demographic characteristics described above.

Table 2

Demographic Characteristics of Educator Participants

	$n = 10$	
	n	%
Gender		
Gender non-binary	1	10.0
Man	2	20.0
Woman	7	70.0
Hispanic Decent		
Yes	5	50.0
No	5	50.0
Race/Ethnicity		
Black/African-American	1	10.0
Caucasian/White	4	40.0
Latina/o/e	4	40.0
Other	1	10.0
First-Generation Student Status		
Not First Generation	4	40.0
First Generation	6	60.0
Employment Status		
Residential faculty, appointive	4	40.0
Residential faculty, probationary	4	40.0
Adjunct faculty or other	2	20.0
Highest Degree		
Master's	6	60.0
Doctoral	4	40.0

## Descriptive Statistics and Pre-Post Differences

The constructs addressed by the Educator Survey items were self-efficacy for CRTeaching, general instruction, and cultural caring/empathy. Eighteen items on the survey addressed CRTeaching, five addressed general instruction, and seven addressed cultural caring/empathy. The Educator Survey Likert-scale items ranged from 1 (*not at*

all confident) to 5 (*extremely confident*). I calculated per-item means for the three constructs.

I used the Wilcoxon signed-rank test to compare the educators' responses about self-efficacy for teaching in culturally responsive ways, cultural caring and empathy, and general instruction from the pre- and post-survey (Wilcoxon, 1945). Additionally, I calculated the effect size, r, for each construct's change from pre-to post-survey responses (Rosenthal, 1991; Field, 2013). Overall, the analysis indicated improvement among all constructs. The educators reported significantly higher levels of self-efficacy for teaching in culturally responsive ways and for general instruction. The educators reported higher levels of engagement in cultural caring and empathy; while the differences were not statistically significant, they were nearing significance ($p = .09$).

Ten participants completed the pre- and post- Educator Survey. The educators' levels of self-efficacy for teaching in culturally responsive significantly increased from before ($M = 3.51$, $SD = 0.57$) to after the CRT-B book study ($M = 3.96$, $SD = 0.42$), $z = -2.30$, $p < .05$, with a large effect size of $r = .51$. The educators' levels of self-efficacy for general instruction also significantly increased from pre ($M = 3.68$, $SD = 0.58$) to post CRT-B book study ($M = 4.14$, $SD = 0.54$), $z = -2.35$, $p < .05$, with a large effect size of $r = .53$. The educators' levels of engaging in cultural caring and empathy increased from pre ($M = 4.16$, $SD = 0.54$) to post CRT-B book study ($M = 4.42$, $SD = 0.34$), $z = -1.70$, at a significance level of $p < .10$, with a medium effect size of $r = .40$. Figure 3 demonstrates how each construct increased from before to after the book study took place.

Figure 3

Self-Efficacy Changes from Pre- to Post-CRT-B book study (Scale was 1-5)
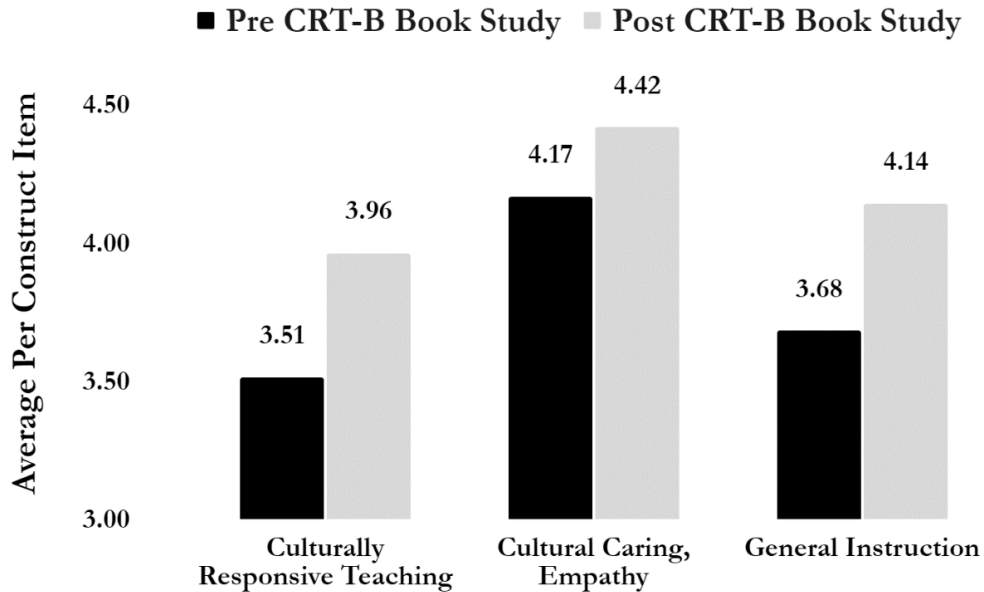
Research Question Two: Educator Qualitative Results

Research question two investigated qualitative changes that participants experienced after participating in the CRT-B book study. I sought to describe changes the participants experienced in teaching in culturally responsive ways and in their ability to engage in empathy or cultural caring with and for their students. For descriptive changes that the participants experienced in teaching in culturally responsive ways, I broadened this to include general interactions with students in culturally responsive ways. I did this because some of the interviews occurred shortly after the book study's completion; therefore, adding student interactions allowed for more discussion of changes among participants.

To help answer these questions, I analyzed the four interviews I conducted after the CRT-B book study and the open-ended responses from the post-book study Educator

Survey. A total of ten participants completed the post-book study Educator Survey, and eight of those individuals responded to the open-ended questions on the survey. I had the interviews during the Fall 2023 academic semester. In this section, I refer to the four interview participants by pseudonyms they selected (or I selected for them using a random name generator) and by their preferred pronouns (she or they). These pseudonyms are Sandra, Lana, Eleanor, and Mia. I refer to the participants who answered the open-ended questions anonymously with their participant IDs P1-P8.

I present the codes, followed by the major themes that I uncovered from my data analysis of the interviews and post-survey responses, organized by the two parts of the second research question. The first part of the question asked about the descriptive changes in self-efficacy for teaching in culturally responsive ways, and the second part asked about the descriptive changes in participants' engagement in cultural caring and empathy.

I coded the qualitative data using open coding, in-vivo coding, and thematic coding methods. The initial coding revealed three prominent themes centered around the importance of (a) empathy in teaching, (b) a connected community, and (c) relationship building with coworkers and students. Twenty-two codes emerged during in-vivo coding. Following the in-vivo coding process, I coded the interviews and open-ended responses using 15 a priori codes related to the CRTeaching, CRP, and CSP literature. I provide the in-vivo and a priori codes in Appendix H.

The following sections highlight how I used the codes that emerged from in-vivo coding and those developed for thematic coding to generate overarching themes of the data. I organized these themes based on their connection to RQ2a and RQ2b, self-

66

efficacy for teaching culturally responsive ways, and engagement in cultural care/empathy, respectively. I also list the number of interviewees and survey respondents that mentioned each code, because the survey respondents were anonymous, it is unknown if there is overlap between interviewees and participants who answered the survey questions and because of this, I report both numbers.

Major Themes Related to Self-Efficacy for Teaching in Culturally Responsive Ways

Five thematic and five in-vivo themes addressed the first part of RQ2. The themes that I uncovered during thematic coding were student learning, cultural competence, critical consciousness, promoting rigor, and real-world application. The in-vivo themes, taken directly from codes derived from the words used during interviews, were individualistic vs. collectivist thinking, words matter, behavior matters, inclusion, and CRTeaching is about more than race. In the following, I delineate all the themes and provide supporting quotes as evidence for each of them.

Themes Uncovered During Thematic Coding

Several concepts are related to CRTeaching, Culturally Relevant Pedagogy (CRP), and similar practices. A culturally relevant educator focuses on student learning, is committed to developing students' cultural competence, and fosters students' critical consciousness (Ladson-Billings, 1995). CRTeaching and CRP also emphasize promoting classroom rigor and using real-world applications to be more relevant to students' lives. Numerous participants listed ways they focused on these factors in and out of the classroom. Again, the five themes that I uncovered during thematic coding were student learning, cultural competence, critical consciousness, promoting rigor, and real-world application.

Emphasis on Student Learning. All four interviewees and five survey respondents described how the book study helped them emphasize student learning. P4 discussed how they have enhanced learning for students in their classrooms when they stated, "I have made more efforts in creating an environment where students are interacting more with each other and give them opportunities to explain in their own words what they understand." P2 described how they have changed their assumptions about student learning in the classroom by commenting, "I have noticed myself asking questions about students' level of understanding rather than assuming I know it." Correspondingly, P5 said, "The text made me reflect on how students learn." This comment demonstrated that participants reflected on how the book study and the readings helped to increase an understanding of student learning,

Cultural Competence. All four interviewees and six survey respondents indicated changes in their abilities to recognize their biases and the lens through which they view the world. P2 reported that they noticed themselves making assumptions about their students and expecting their students to be familiar with the instructor's culture and that the intervention shifted this mindset for them. They described this by discussing their change in awareness, "…the book study helped me to become more aware of the fact that the students I work with come from many different cultures, and therefore I should not assume they are familiar with my culture as a white American." P3, in addition to saying that the book helped them realize the connection between the brain and how students feel belonging, also reported, "I hope psychobiological data will help those who are reluctant to engage in more culturally responsive practices." This demonstrated that CoPs like the

one used for this research could help to increase cultural competence for many people, including, perhaps, those who are reluctant to engage in CRTeaching.

Critical Consciousness. Five survey respondents and three interviewees highlighted how they have become more confident discussing social inequalities and inequities with their students. Eleanor exemplified how the participants noticed themselves and their students engaging more in critical consciousness:

> You know, and what I've noticed is that I'm being more direct about it, which is not surprising, like I know this, but it's a good reminder. That in being more direct about like, yeah, this is inequality . . . and we need to talk about it because it needs to change. Students also feel more confident in taking a stance then.

> When asked about how the book study affected their ability to teach and relate in culturally responsive ways, P6 described, "I am confident with teaching about other cultures and understanding cultural perspectives but I tend to forget about differences in how we were raised and making generalities about 'what we all know' from childhood or other time frames." This comment highlighted that critical consciousness covers inequities from many perspectives.

Promoting Rigor. Four survey respondents and all four interviewees described ways to promote rigor, effort, and achievement among their students. P4 described how they still expect a lot from their students and that they do so by checking in on them and giving them feedback: "I give them [students] tasks that get them talking and offer each other ideas on how to explain things in their words. We share ideas out to class, and what I try to do is listen to what they say." Mia also highlighted this concept of rigor when she

69

discussed that some disciplines might see CRTeaching and similar methods as more effortless when, in fact, they often push students to think critically.

> I think . . . some people in certain disciplines think 'well if you if you use cultural responsive teaching, you're making the class easier, or it's not as rigorous.' And it's actually, if you are showing that empathy and still making the class rigorous, it's more work in some ways. It's worth it, but it's more work.

Real-World Application. Three interviewees and four survey respondents described how they try to relate class content to their students. Mia described the importance of real-world applications and examples relevant to her students when expressing that "All of these things have to be relevant. If I'm talking about things that they don't care about, then it's not going to help them learn the material." Lana also emphasized the value of integrating real-world applications when discussing a time when a student was able to apply some of his interests to a project for their class:

> I had a student the other day who mentioned something about tattoos . . . I asked him . . . tell me what your tattoos mean to you? And we had never had that conversation before. And now they're doing a study about body modifications because they feel like, oh, this is of interest.

Sandra also discussed how CRTeaching educators have an opportunity to involve more people in their work, people who may otherwise be hesitant to do cultural work. They can do this by reminding people that the relevant/responsive part is just as important as the cultural part.

> I think when people see that they really do focus on the cultural part of that phrasing rather than the relevant part. And this is where I think it's hit or miss

70

with some of my colleagues. I think if more people heard that this is the real

distinction. I think more people would be open to that.

Themes Uncovered During In-vivo Coding

The five in-vivo themes, taken directly from codes derived from the words used

by interviewees, were individualistic vs. collectivist thinking, words matter, behavior

matters, inclusion, and CRTeaching is about more than race.

Individualistic vs. Collectivist Thinking. Two interviewees and three survey

respondents reflected on how they, as educators, can support students by being aware of

and aligning their teaching practices with their students' cultural backgrounds and

experiences. In her interview, Sandra indicated how much this concept she learned during

the book study meant to her: "The other one that like really just blew my mind was the

individualistic versus collective thinking." She then described that this deepened her

understanding of herself and her parents to a level she did not initially expect. She

expanded on this later and how her thinking has changed, saying, "I'm not going to

assume anymore that my students that necessarily look like me come from cultures that

are collective. . . I can't assume that anymore."

Eleanor also highlighted this in their interview when discussing how educators

assess their students and how educators can be more aware of culture when deciding on

methods for assessing:

> You know, a lot of our students have cultural backgrounds that are deeply
>
> embedded in collective struggle and collective support . . . So when we're like
>
> we're only going to measure you as an individual, they're like well that's not how
>
> I've done anything in my entire life. So what does this even look like?

71

Words Matter. Behavior Matters. All four interviewees and four survey respondents described how their words and behaviors matter when engaging and relating to students. Sandra embraced this idea that our use of language as educators is important and how our behaviors can influence students in and out of the classroom by saying, "It made me really kind of be more reflective and conscious that words matter. Behavior matters." Later, she described how her behaviors and class discussions have changed to become more accepting. Other respondents highlighted similar behavioral changes. For instance, P5 described how they start their classes with a specific tone and how this might be damaging: "I often start the semester in a very authoritative tone to set the tone for the semester and then slowly mellow out. This could be doing more damage than good." One statement from Sandra also emphasized the importance of the kind of language educators use and how we discussed this frequently in the book study sessions: "The discussion that we had in the book club was that language matters. And how students interpret what you say matters, and it affects how they behave." These discussions continued beyond the book study in participant-initiated meetups that the group has had since the end of the book study sessions.

Inclusion. All four interviewees and four survey respondents described the importance of inclusion. Some described how the book study gave them more confidence in their ability to maintain rigor while discussing cultures, and others noted how they have made attempts to ensure that their classroom environment is inclusive. P1 said, "I feel less fear to bring up culture and how to utilize it in a manner that feels inclusive to all, while also making every students [sic] feel heard, individually." P1 also described several realizations that they had, one related to the importance of inclusion in particular:

I can go further and not have fear in discussing more cultural issues, as it will help

all of my students feel included. It will let them know I am not shying away and

care about everyone and their background.

CRTeaching is About More Than Race. Three interviewees and three survey

respondents found that the book study opened them up to be more comfortable discussing

differences in their students' cultural backgrounds beyond race and ethnicity. Some also

voiced a feeling of being more open to all sorts of cultural differences, even if students in

the classroom do not represent that group. For instance, Lana said, "just because I don't

have someone of a certain religion, race, ethnicity. . . anything doesn't mean that I can't

bring forth and discuss that topic." Other participants also indicated that the book study

and community made them more responsive to all students, not only students of color; for

instance, Eleanor described relating more with students who were different from them,

including white students and more conservative-leaning students. As an example of this

shifting mindset, Eleanor said the book had them "thinking about like how do I engage

with my conservative students," which they said was sometimes difficult, given different

political views.

Major Themes Related to Engagement in Cultural Caring and Empathy

Four thematic and six in-vivo themes addressed the second part of RQ2. The four

themes uncovered during thematic coding were selective vulnerability, attending to the

student as a person, cultural reciprocity, and applications of values and similar interests.

The six in-vivo themes taken directly from codes derived from the words used during

interviews were compassion, understanding, stress/trauma, relating, [that instructors]

modify and change, and [that instructors use] neuroscience.

73

Themes Uncovered During Thematic Coding

Cultural caring and empathy are both components of teaching that can help support students in the classroom and help them feel a greater sense of belonging (Gay, 2010; Warren, 2018). Instructors can show cultural caring and empathy for students in several ways. Some of those ways are highlighted in the following sections. The four themes that I uncovered during thematic coding were selective vulnerability, attending to the student as a person, cultural reciprocity, and applications of values and similar interests.

Selective Vulnerability. Two interviewees and three survey respondents described positive changes in their engagement strategies with students or expressed that they feel more comfortable talking with students and sharing about themselves. For example, when asked how she interacts with students, Lana said, "I feel like professors should know a little bit more about their students, and I also think students should know a little bit more about their professors." Other educators expressed similar sentiments about getting to know their students more and opening up more. For instance, P7 described how they have changed their interactions with students and reflection on those interactions, ". . . from that reflection, I have changed the way I grade assignments and the primary figures we study." This demonstrated that they have started to reflect more on how they engage with students and that this is directly changing their practices.

Attending to the Student as a Person. Six survey respondents and all four interviewees said they have noticed themselves showing more care for their students and seeing them as holistic people instead of just students who begin and end in the classroom. One quote highlighting this point came from Lana when referring to how she

74

changed a first-week assignment that used to ask introduction questions but now integrated open questions. She did this specifically so that students could open up to one another and get to know each other early on because later, they had to pick partners for a group assignment. She said, "Now I just ask them to talk about themselves. That way, they could really get to know their counterparts that would be in a study with them that they're doing for [class name redacted]."

Sandra also described how she has started connecting with her students in class instead of only getting to know a few when she meets with them outside of class. She indicated that this change resulted from the book study and previous training that addressed culturally relevant teaching. She also described how this change led to increased conversations between students, allowing her to become more acquainted with her students both within and outside of class time. Additionally, she and other participants noted that they taught better and more effectively because of this greater understanding of their students.

Cultural Reciprocity. Two interviewees and two survey respondents highlighted that their teaching needed a two-way exchange between educators and students. Several participants described how they started seeing their students as co-creators of knowledge in their classes. Eleanor highlighted this when asked to expand on an assignment from their class: "We're not just here to sit here and memorize things, we're not here to like regurgitate what somebody else said or to prove that we're worthy or whatever." This and comments made during the book study sessions demonstrated how CRTeaching educators come into a classroom with the expectation that they are going to learn by

interacting with their students and through their experiences with students as much as students will learn from them.

Applications of Values and Similar Interests. All four interviewees and three survey respondents talked about their increased ability to connect with their students over similar interests and values. This manifested through a connection over similar tastes in music, and sharing similar deep cultural values such as collectivist thinking. Lana highlighted how shared interests can make a classroom more fun and inviting:

I shared with [students] that I was going to Drake's concert because I was so excited, I just had to brag and I told them I was like, 'it's a brag.' And it was really cool because I had a student [ask me after], 'how was the Drake concert?' And she was so interested, right? Because they like that music too. I was trying to relate via music.

Another example of a shared value an instructor reported was when they spoke with students about their names. Sandra provided the following example of asking students about their names when they told her she could call them by their "Americanized" name instead of their given name.

They shouldn't be the ones to adjust to my lack of saying their name, I've got to change. And so, when I encountered those situations, where they're like, here's my American name, I usually tell them, look, your parents gave you that name for a reason. We're going to say the name they gave you, that's your identity. And sometimes I get this kind of surprise reaction because they're like, no one's ever said that to me before. They're the ones that had to adjust to their teacher.

Themes Uncovered During In-vivo Coding

The five in-vivo themes, taken directly from codes derived from the words used by interviewees, were: compassion, understanding, stress/trauma, relating, [that instructors] modify and change, and [that instructors use] neuroscience.

Compassion. All four interviewees and four survey respondents spoke about how they can now show more care and compassion to their students after the book study and subsequent discussions with other educators. P2 described how the book study helped them, "It helped me to become an even more compassionate educator." While Mia did not use the word "compassion" specifically, she expressed it when discussing student mental health: "Reframing, you know, how I look at teaching and especially in this time post-COVID of high anxiety, uncertainty, social anxiety. Which is, you know, not necessarily diagnosable amounts, however people are feeling it." Later, she described how these post-COVID sentiments had affected students and how she is starting to adjust in her classroom as a result: "that uncertainty [related to learning after COVID] has created a lot of stress in people . . . And I'm seeing a lot of remediation is needed."

Understanding. All four interviewees and three survey respondents credited the book study with improving their ability to connect with students and understand where they are coming from. P6 expressed that they are showing more empathy and understanding to their students: "Showing empathy does not mean letting students 'get away' with things but instead understanding where they are coming from and how that may effect [sic] their learning in general or on a particular day." Another survey respondent, P2, described how their interactions with students have changed following

the book study when saying, "I have noticed myself asking questions about students' level of understanding rather than assuming I know it."

Student Stress and Trauma. Four survey respondents and three interviewees expressed concerns for their students and noted that when educators do not engage in CRTeaching, student experiences can be stressful and even traumatic. P4 described how the book influenced how they interact with students:

> The part of the book that has deeply influenced me is that if the brain feels under attack, it can't learn. Trauma is real and this isn't necessarily they [sic] way we normally associate trauma. If a student encounters a feeling of trauma like experiences where failure in a subject matter defines who they are and how intelligent they are, then it's harder to learn.

The participant followed this with how they are trying to change and gave an example of something they tried in the classroom following the book study. Specifically, they gave an exam, allowing students to make corrections afterward and explain their thinking. They reported that the reflection opportunity helped the students develop better study habits and helped the instructor adjust to students' needs.

Relating to Students. All four interviewees and five survey respondents discussed the importance of relating to students and ensuring students feel connected with one another and their instructors. P7 explained how they found the book helped them relate content to students' lives by saying it, ". . . has become a valuable tool in getting students to see how [class name redacted] relates to their lives." Mia described how she had shared personal experiences with her students and that this helped her to connect with students in different populations:

78

For the last 10-15 years, I've worked with a lot of older students. So when I say

they're my people, I get them, because I went back to school many times, and I

understand them. . . Plus they've expressed to me, you know, 'I feel like a neon

sign here with everyone.' But you know I've always worked well with them.

Later in the interview, Mia also described how important it is to relate to all

students to enhance their learning. To this point, she explained that if she is "talking

about things that they don't care about then it's not going to help them learn the material."

[That Instructors] Modify and Change. Three interviewees and four survey

respondents explained how educators need to continually "modify and change" what they

do in order to be culturally responsive educators. This theme aligned with the action-

provoking and adaptive a priori code. As an example, Mia described how she tries to

modify and change her instruction every time she meets with students so that she can

create the most supportive learning environment:

We could have memorized lectures that do not deviate per our population or class

. . . but we don't. We modify and change to adapt to students' needs. . . If you just

memorize a lecture—I've had professors like that—it doesn't matter who they're

talking to, they say the same thing.

Lana also described how she hopes to modify and adjust for students, even as she

ages. She noted this because she fears losing relatability and perhaps having less in

common with her students when she gets older. She described wanting to avoid one of

the methods described in the book, the back talk strategy.

And sometimes I find myself doing that, like I'll joke that I'm older, you know.

And I definitely want to make sure that I don't do that as I get older, because I

don't want that to be like . . . Just [Lana]'s old and she's silly because of it, you know?

[That Instructors Use] Neuroscience. Four interviewees and three survey respondents described their appreciation of learning about the neuroscience behind CRTeaching and how creating an inclusive space supports brain function. As an example, Lana described her appreciation of the neuroscience described in the book in the following way:

That was my favorite thing that I learned was honestly the lizard brain because I was like, oh my god. That's me. That's why I, you know, am closed off with my students because I just don't want to offend anybody, you know?

Mia explained how the book topics led her to continually think about her students and their learning and how "if a student is feeling in fight or flight, learning is not going to happen." Mia also described the flip side of this: when an educator uses culturally responsive methods, students learn the material even faster than they initially thought. CRTeaching helps with efficiency in the classroom, which some educators, particularly of Science, Technology, Engineering, and Mathematics (STEM) disciplines, may feel pressured to be efficient when teaching so much material:

. . . some disciplines feel so much pressure. Like let's say math . . . may feel so much pressure with curriculum. But . . . if we approach it from this perspective, more learning will happen. So you don't have to worry as much about curriculum. It will happen if you approach it from this point of view of Culturally Responsive Teaching.

Research Question Three: Student Results

The Student Survey measured the extent to which students felt a sense of belonging by asking questions representing two constructs: (a) empathy and faculty understanding and (b) faculty support and comfort. The Student Survey also included open-ended questions that prompted students to describe how they experienced a sense of belonging or inclusion or if there had been times in class when they did not feel a sense of belonging. In this section, I describe the results of the Student Survey analysis by first providing the results of the quantitative data analyses followed by the qualitative data analyses.

Student Survey Results – Quantitative Data Results

This outlines the reliability measures I performed on the Student Survey, the demographic characteristics of the students who completed the Spring 2023 (n = 291) and Fall 2023 (n = 289) surveys, and report any differences in the constructs mentioned above between the Spring 2023 students and the Fall 2023 students.

Cronbach's alpha

Before beginning my analysis of the responses to the Student Survey, I measured the surveys' internal reliability using Cronbach's alpha. I used the Spring and Fall 2023 data combined for this measure ($N = 580$). For the first survey construct, faculty support and caring, which contained 16 separate survey items, the alpha coefficient was found to be .950. For the second survey construct, empathetic faculty understanding, which contained 14 survey items, the alpha coefficient was $\alpha = .958$. These both indicate strong internal reliability of the Student Survey (Field, 2013).

I analyzed students' data from the Spring 2023 (*n* = 291) and the Fall 2023 survey

(*n* = 289). Before analyzing the data, I removed duplicate IDs and data from students of

instructors who did not administer the survey during both semesters. Table 3 provides

some of the students' demographic factors, including their gender, race or ethnicity, and

first-generation student status.

Table 3

Student Demographics: Gender, Race/Ethnicity, and First-Generation Status

	Spring 2023 *n* = 291		Fall 2023 *n* = 289	
	n	%	*n*	%
Gender				
Gender non-binary, Trans Masculine or Feminine, prefer not to say, or other	6	2.1	14	4.8
Man	93	32.0	105	36.3
Woman	192	66.0	170	58.8
Race/Ethnicity				
American Indian/Native American	5	1.7	4	1.4
Asian	19	6.5	14	4.8
Black/African-American	13	4.5	20	6.9
Caucasian	74	25.4	61	21.1
Hispanic and/or Latina/o/e	141	48.5	154	53.3
Native Hawaiian/Pacific Islander	1	0.3	0	0.0
Other	3	1.0	4	1.4
Prefer not to say	6	2.1	7	2.4
Two or more races	29	10.0	25	8.7
First-Generation Student Status				
Not First Generation	153	52.6	157	54.3
First Generation	132	45.4	126	43.6
Prefer not to say	6	2.1	6	2.1

In addition to these demographics, I also explored the student demographics with an intersectional lens, combining the above demographics. The table where the student demographics are explored from an intersectional lens is in Appendix I. Table 4 summarizes the number of academic years that the students had attended EMCC at the time of the survey, as well as their age. In the Spring 2023 data, one participant's age was not included in the analysis because they reported "1" as their age.

Table 4

Student Demographics: Years at EMCC and Student Age

	Spring 2023 $n = 291$		Fall 2023 $n = 289$	
	Years at EMCC	Age	Years at EMCC	Age
Mean	1.96	22.52	1.75	22.24
Median	2.00	20.00	1.50	20.00
Mode	1.00	19.00	0.50	19.00
Std. Deviation	1.22	5.87	1.46	6.07
Variance	1.50	34.40	2.13	36.86

Descriptive and Inferential Statistics for Spring and Fall 2023 Surveys

To examine the extent to which belonging differed between the Spring and Fall 2023 semesters, I first organized the data into two constructs: perceived faculty support/comfort (16 items) and empathetic faculty understanding (14 items). Each question asked about the level of agreement on a 5-point scale from *strongly disagree* to *strongly agree*. As an example, a survey item that addressed perceived faculty support/comfort prompted students to indicate their level of agreement about how comfortable they are seeking help from the instructor before or after class. Another item addressed empathetic faculty understanding by prompting students to indicate their level

of agreement with the proposition that their instructor would not pass judgment on them if they told the instructor about a personal problem. I then calculated average scores for each construct for students in the spring semester and those in the fall semester (see Figure 4).

Figure 4

Spring and Fall 2023 Student Belonging Scores (Scale was 1-5)
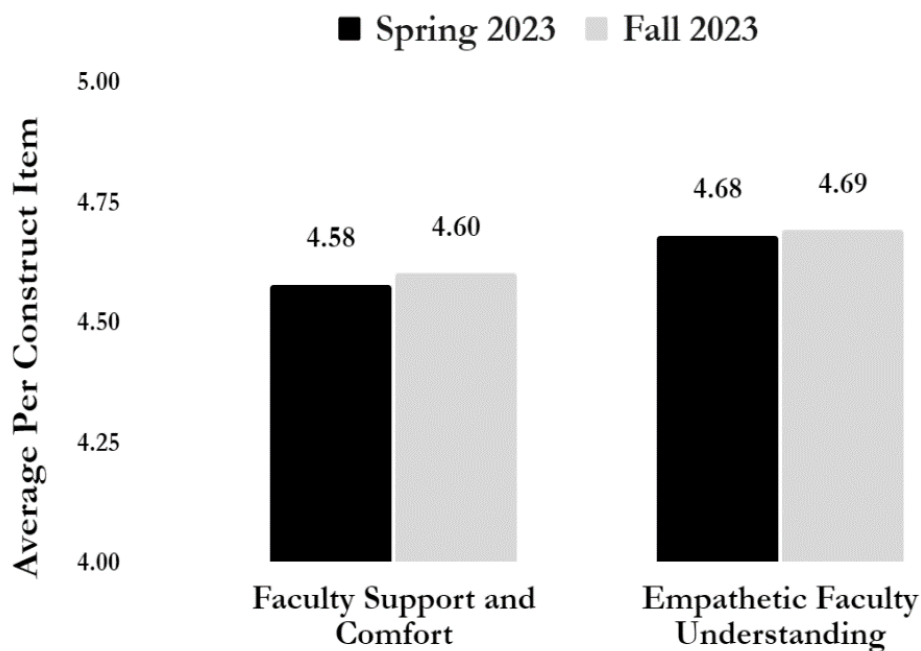
Independent samples t-tests were applied to assess differences in student belonging in the classroom before and after an instructor completed the CRT-B book study. There was a slight, nonsignificant increase in faculty support and comfort from Spring ($M = 4.58$, $SD = 0.57$) to Fall 2023 ($M = 4.60$, $SD = 0.61$), $t(578) = 0.46$, $p = .65$. There was also a slight increase in empathetic faculty understanding from Spring ($M = 4.68$, $SD = 0.53$) to Fall 2023 ($M = 4.69$, $SD = 0.59$), $t(578) = 0.09$, $p = .93$. Further, I ran independent samples t-tests for each instructor to assess any significant differences in

student belonging in the classroom before and after that instructor completed the CRT-B book study. The differences were not statistically significant ($p > .05$).

Student Survey Results: Qualitative Data Results

The student survey had open-ended questions that prompted students to describe their experiences of belonging and inclusion. Students were also asked to indicate if there had ever been a time when they did not feel a sense of belonging or inclusion in their class. These questions helped determine how the CRT-B book study affected the instructor's ability to increase belonging and inclusion in the classroom via CRTeaching and cultural caring/empathy.

Differences in Student Qualitative Responses in Spring 2023 and Fall 2023

In Spring 2023, 253 students responded to at least one of the three open-ended survey questions. In Fall 2023, 314 students responded to at least one of the three open-ended survey questions. To compare the proportions of themes that arose in responses, I removed duplicate students (i.e., the same student in two or more of the examined classes in the same semester). I excluded data from instructors who only administered the Student Survey one of the two semesters. After this process, responses from 236 Spring and 244 Fall students were available for analysis.

I used in-vivo coding with the Spring 2023 data first, which revealed 57 words and phrases that emerged as codes. These codes were then code-mapped into four major themes: (1) collaborative, active; (2) empathetic, understanding; (3) responsive, gives feedback; and (4) warmth, welcoming. I coded the Fall 2023 data using the same codes and themes. Afterward, I added nine additional codes to the categories and retroactively examined the Spring 2023 data for those codes. This process led to 66 codes for both

Spring and Fall 2023 survey responses related to belonging or inclusion in the classroom. A complete list of the codes and the respective themes to which each was categorized is provided in Appendix J.

      After coding the qualitative data, I determined how many students made comments within each code and categorized the codes into the aforementioned themes. Figure 5 illustrates the proportions of positive student comments within each theme, reflecting an increase from Spring 2023 to Fall 2023. More than one theme could be coded within one response; for instance, if a student described how an instructor greeted them daily with a smile and asked about their day, I coded this as "*warmth, welcoming*." If the student also explained that the instructor gave helpful feedback on their assignments, I coded this as "*responsive, gives feedback*."

Figure 5

Student Responses in Spring and Fall 2023 that Contained Instructor Themes
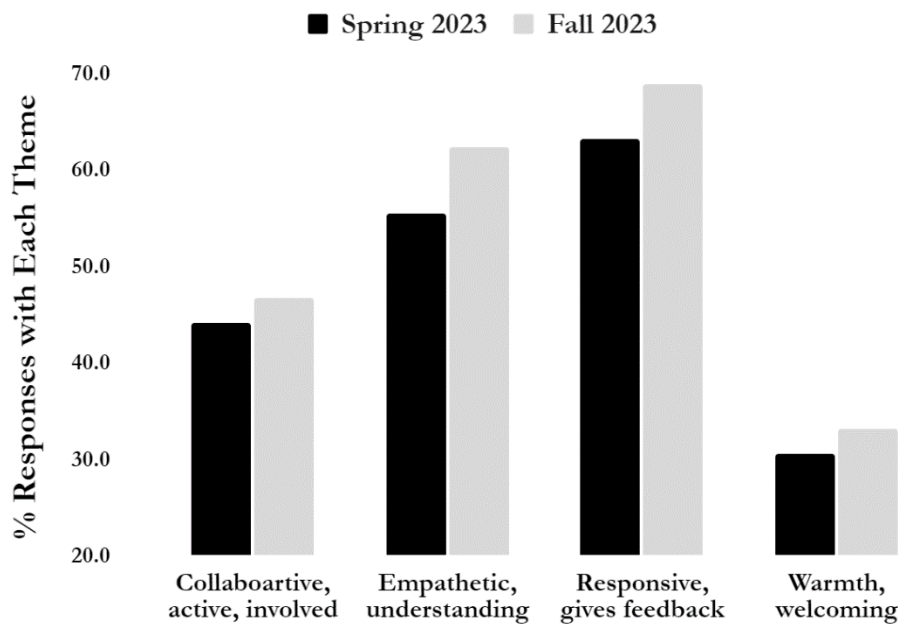
The following sections describe the themes that emerged from student responses to the open-ended questions about when they felt included and perceived a sense of belonging in classes. I provide quotes from students to illustrate the themes that emerged. I also describe themes that emerged from student responses to the last open-ended question, which asked students to describe times when they did not feel a sense of belonging or inclusion in their classes.

To assess differences in student views about their instructors from Spring to Fall 2023, I calculated the absolute change in percentage and the relative change of proportions of students who indicated their instructors possessed an attribute related to the four themes that emerged from the analysis of student responses (Table 5). The absolute change in percentage represents the raw magnitude of difference between the Spring and Fall 2023 survey responses in terms of percentage points. The relative change compares the change (Fall 2023 minus Spring 2023) relative to the baseline (Spring 2023 responses), and is useful in understanding the proportional shifts in students' responses.

Table 5

Changes in Proportions of Student Themes about Instructor Attributes

Theme	Spring 2023 %	Fall 2023 %	Absolute change (%)	Relative change (%)
Collaborative, active	44.1	46.7	+2.7	+6.0
Empathetic, understanding	55.5	62.3	+6.8	+12.2
Responsive, gives feedback	63.1	68.9	+5.7	+9.0
Warmth, welcoming	30.5	33.2	+2.7	+8.8

Collaborative, Active

In Spring 2023, 104 students out of 236 (44.1%), and in Fall 2023, 114 students out of 244 (46.7%) described something related to their instructor's collaborative and active nature. The responses that described this theme often used gerunds (action words ending in -ing) and described active and engaged instructors in the classroom. One quote that exemplifies this theme was from a student explaining how they enjoyed active games played during class; they felt included in a class where they "played a game of Kahoot, and there was a lot of positive energy going around when playing." Another student described how their instructor engaged with them by walking around and writing on the boards:

> It is typically during Group work. She writes questions on the board to have students solve them as a team. She also walks around to ask questions and help tables out with solving the problems. This is nice to get to know the people in the class as well as the teacher.

Empathetic, Understanding

In Spring 2023, 131 students out of 236 (55.5%), and in Fall 2023, 152 students out of 244 (62.3%) described something related to instructor empathy and understanding. This theme arose from comments and words that evoked feelings about care and understanding that instructors embodied. One quote that emphasized this point and how an instructor with empathy can also create a positive classroom environment came from a student who wrote about a time when they felt included:

> I felt included in my instructor's classroom when certain historical issues were discussed and brought to light in a sensitive manner. The environment of the

classroom is also very inviting. When the instructor opens up the class for

discussion everyone is welcome to join in the conversation without judgment or

met with hostility.

Continuing with the theme of empathy and understanding, another student wrote

about a personal problem that they had and how their instructor supported them:

I was having a personal problem in my life, and it was beginning to encroach on

my life as a student. I could not think clearly, so I sought her out after the class

ended to see if she had any advice to offer on the situation. She related to me,

empathized, and from an adults [sic] point of view, told me my best course of

action, which in that moment was to just trust my gut. It really helped just to

speak about my problem with someone, but it also comforted me tremendously to

hear someone validate my problem and tell me that what I was worried about was

completely normal.

Responsive, Gives Feedback

In Spring 2023, 149 students out of 236 (63.1%), and in Fall 2023, 168 students

out of 244 (68.9%) described something related to their instructor being responsive and

giving feedback. This theme was the most common of the four. Many topics described

for this theme surrounded how well instructors responded to student questions and gave

assignment feedback. One quote that embodied this theme came from a student

describing how much they appreciate the responsive nature of their instructor. They

recounted that from the beginning of the class, their instructor "responded to emails on

[sic] a timely manner and has left very kind and encouraging comments on my

assignments." Another quote representative of the responsive/feedback theme described

how an instructor reached out to the student when they were struggling with the class:

> Throughout the semester I felt overwhelmed and burnt out from several
>
> circumstances including extra curricular [sic] activities and family needs.
>
> [Instructor name redacted] not only helped me when I needed support but reached
>
> out to me when she noticed that I was not doing the best in her class. She even set
>
> up a google meet with me to discuss a plan of action that helped me to be
>
> successful in her course. I couldn't thank her enough.

Warmth, Welcoming

In Spring 2023, 72 students out of 236 (30.5%), and in Fall 2023, 81 students out

of 244 (33.2%) described something related to their instructor being warm and

welcoming. One student described their instructor using several terms coded for this

theme, "I genuinely loved the instructors [sic] interaction with the classroom as she is a

very kind and whole hearted teacher." As a further example, another student described

how their instructor shows kindness and warmth in addition to making sure that students

know that unkind comments will not be tolerated:

> My instructor makes the classroom a very welcoming and accessible environment
>
> where I believe everyone can feel like they belong. When people discuss their
>
> opinions about controversial topics, my instructor ensure [sic] we understand all
>
> aspects of the topic, why it is controversial, and that hateful opinions will not be
>
> tolerated.

Cases Where Students Did Not Experience Belonging or Inclusion

There were very few instances in the Spring and Fall of 2023 when students wrote about not feeling a sense of belonging or inclusion in their classes. In Spring 2023, 12 students out of 236 (5.1%), and in Fall 2023, and only nine students out of 244 (3.7%) described a time when they felt a lack of belonging or inclusion in their classes. Because there were so few instances of cases when a student reported not feeling included or belonging, there were not enough responses to create codes or themes of the data. One possible overarching theme that arose in at least more than two responses was that lack of responsiveness of an instructor. While there were no official codes generated around cases where students did not experience belonging or inclusion, I provide examples of statements made from students from both semesters. In Spring 2023, one of the 12 students who reported not feeling included or belonging said:

> I had issues with my table because of the group project we were working on, I found out through my group that the professor and them had been talking about me anytime i [sic] wasn't around and that did make me feel like i [sic] didn't belong or wasnt [sic] included. It was resolved in the end.

In Fall 2023, one of the nine students who reported not feeling included or belonging said that they "struggling in a specific task and the teacher refused to further explain or would ignore emails." The number of reports from students about not feeling included or belonging, while small, decreased from Spring to Fall 2023, indicating a general increase in inclusion, and belonging in the instructor's classes.

CHAPTER 5

DISCUSSION

The classroom remains the most radical space of possibility in the academy.
— bell hooks, Teaching to Transgress

Overview

My action research dissertation aimed to explore ways to create a more equitable experience for all students and decrease specific equity gaps I had discovered through prior research. My intervention had several objectives, namely to (a) develop a community of practice (CoP) among educators through a book study of *Culturally Responsive Teaching and the Brain* by Zaretta Hammond, (b) increase educator self-efficacy for culturally responsive teaching (CRTeaching) and cultural caring/empathy, and (c) ultimately increase student sense of belonging in the classroom. In this chapter, I discuss my key findings and their alignment with the literature, describe other pertinent findings from the study, discuss the study's limitations, provide recommendations and a conceptual framework for practitioners, and conclude with final reflections.

Discussion of Findings and Relationship to the Literature

In this section, I highlight the major findings from my study in a mixed methods format, describing the combined quantitative and qualitative effects of the CRT-B book study related to each construct. I first present the foremost mixed methods findings for changes in self-efficacy for CRTeaching (RQ1a and RQ2a), then present the vital mixed methods findings for changes in self-efficacy and engagement in cultural caring and empathy (RQ1b and RQ2b), and lastly, describe the most relevant mixed methods findings for a sense of belonging and inclusion in students (RQ3).

Mixed Methods Findings: Self-efficacy for CRTeaching

The CRT-B book study had quantitative and qualitative effects on changes in self-efficacy for CRTeaching in participating educators (RQ1a and RQ2a). As described in chapters three and four, I used a survey to measure the extent of change in participants' self-efficacy for teaching in culturally relevant ways. I also used open-ended questions in the survey and post-book study interviews to measure how those changes occurred. The results from the Educator Survey indicated a positive influence of the CRT-B book study on all the constructs I aimed to increase, particularly self-efficacy for teaching in culturally responsive ways, which increased from 3.51 to 3.96, nearly half of a point on a 5-point Likert scale ($p < .05$). Given the book's general focus on CRTeaching, it was not surprising that the CRTeaching construct increased the most from pre-to-post as compared to the other constructs.

In addition to the significant changes in self-efficacy for CRTeaching, I also found several descriptive changes in CRTeaching. I observed ten major themes from the interviews and open-ended responses. I uncovered five themes during thematic coding: student learning, cultural competence, critical consciousness, promoting rigor, and real-world application. The other five themes that emerged during in-vivo coding were individualistic vs. collectivist thinking, CRTeaching is about more than race, words matter, behavior matters, and inclusion.

The theme of *student learning* emerged when participants described their efforts to change how they instruct in the classroom and how students demonstrate their understanding and learning. These reports included comments about changes in assignments and activities in the classroom, like trying not to assume what students know

or do not know at the beginning of the course. This theme aligns with ensuring that teaching emphasizes how the student will learn the material (Ladson-Billings, 1995). Since I began working at EMCC, faculty and staff have emphasized using formative assessment to improve instruction. This emphasis was reflected in the instructors' responses and demonstrated growth in their self-efficacy for CRTeaching. I identified the *inclusive* theme when instructors discussed practices they started doing in the classroom to ensure that all their students' voices were heard. This theme relates to student learning as the instructors described giving check-in assignments or having discussions in class where students had sufficient time to process a concept and then discuss it in a group setting. One instructor also attributed to the book study a change in their willingness to ask about and include information about various cultures to ensure that they included as many students as possible in their curriculum.

The themes of *cultural competence* and *critical consciousness* emerged when participants described their efforts to become more aware of their students' cultural backgrounds and their increased comfort in discussing topics of diversity, equity, inclusion, and culture in their classrooms. These resonate with Ladson-Billings' (1995) conceptualization of cultural competence and critical consciousness, underscoring the need to comprehend cultures, cultivate cultural curiosity, and encourage civic engagement. This type of educator awareness and increased comfort also led to empowerment, as described by several participants. This empowerment led to more critical consciousness among students; one instructor described how their students started to question why some historical documents did not recognize the role of indigenous people in the founding of Tempe.

I identified the theme *of individualistic vs. collectivist thinking* when participants explained that their book study participation helped them better understand their students' cultural backgrounds. A sense of deeper cultural awareness, exemplified by the individualistic vs. collectivist theme, can help educators align with students (Hammond, 2014). This theme also relates to intersectionality—that people have many different lenses through which they view the world (Crenshaw, 1989). One instructor described that she will no longer look at her students and assume their culture, even when they look like her, this emphasized that one's culture is determined by many things beyond race. Individualistic vs. collectivist thinking also relates to the theme that *CRTeaching is about more than race*. Several instructors reinforced this concept by describing how the book study helped them to be more open-minded about students' backgrounds. For example, one instructor described being better able to understand the perspectives of their more conservative-leaning students. The themes and findings related to CRTeaching demonstrate that book study participation enhanced the participating educators' self-efficacy for CRTeaching. This improvement hopefully also influenced students' sense of belonging and inclusion positively and, in turn, could help close equity gaps.

Mixed Methods Findings: Self-efficacy and Engagement in Cultural Care/Empathy

I found both quantitative and qualitative effects of the CRT-B book study on changes in self-efficacy for and engagement in cultural care and empathy (RQ1b and RQ2b). The results from the Educator Survey indicated a positive influence (marginally significant at the $p < .10$ level) of the CRT-B book study on self-efficacy for cultural care and empathy. One possible reason that these changes were not statistically significant at the $p < .05$ level could be because the self-reported levels of self-efficacy for cultural

95

caring and empathy by the instructors in the book study were already relatively high at the onset. This high baseline likely influenced the relatively modest increase from pre-to post-survey.

In addition to the changes I found from the survey in self-efficacy for cultural care and empathy from pre-to post-intervention, I also found several descriptive changes in engagement in cultural care and empathy. Ten major themes emerged from interviews and open-ended responses. I uncovered four themes during thematic coding: selective vulnerability, attending to the student as a person, cultural reciprocity, and applications of values and similar interests. These themes, like those for CRTeaching, were all related to the literature on CRTeaching and cultural caring and empathy. The other six codes emerged during in-vivo coding: compassion, understanding, stress/trauma, [that instructors use] neuroscience, relating, and [that instructors] modify and change.

The theme of *cultural reciprocity* emerged when instructors spoke about the assignments and the discussions they had in their classes following the book study. Students' experiences were honored more (by the instructor and other students) and acknowledged as adding to the knowledge of the entire class. Freire and Ramos (1970) describe the importance of this type of dialogical approach to teaching when instructors use dialog in the classroom to encourage two-way communication and learning to foster a more participatory and empowering learning experience. Similarly, the instructors in this study spoke a great deal about how they learn from students when engaging in CRTeaching and that they have seen a shift in how they respond to and interact with students. Cultural reciprocity recognizes that educators can (and should) learn from the diverse experiences of their students and their communities (Lamont & Black-Branch,

96

1996). This theme also aligns with research on critical culturally sustaining/revitalizing pedagogy by McCarty and Lee (2014) and what Brayboy et al. (2012) refer to as the "four Rs" of respect, reciprocity, responsibility, and the importance of caring relationships.

I identified two in-vivo themes, *compassion*, and *understanding* when instructors described how they interpreted students' actions and words. For example, one instructor explained that using empathy is not about letting students "get away with" something but rather about understanding where a student is coming from and how to support them in a way that keeps the class rigorous. They expressed that this shift in the philosophy of being more understanding has developed since the book study. This finding also relates to the theme of stress/trauma. Instructors discussed stress and trauma that students experienced during the COVID-19 pandemic as well as the trauma that can arise in a classroom if a student experiences microaggressions or discrimination. I observed through conversations that as instructors' empathetic responses increased following the book study and as meet-ups continued, an understanding of trauma and the student experience also expanded.

Another theme I identified during in-vivo coding was *[that instructors use] neuroscience* in the classroom. Like the discussion of trauma, the neuroscience theme emerged when instructors explained how they applied what they learned from the book in their classes. An excerpt from the book described an instructor/student interaction where unspoken cultural rules dictated the interaction and led to the instructor thinking that the student was obstinate. During a book study session, we discussed this example at length. In interviews and discussions, we also explored how instructors may be creating a

97

mismatch of culture in the classroom and how this mismatch could be leading to students activating their amygdala more (e.g., an "amygdala hijack," Hammond, 2014) instead of other parts of the brain that help with higher-level, critical thinking. As a result of this amygdala hijack, students have a more challenging time processing new information and may appear to the instructor to be less capable in the classroom. In reality, it results from neurological phenomena caused by a decreased sense of belonging and inclusion in the classroom.

I identified the theme of *relating to students* when instructors described their increased ability to get to know students using surface-level and deeper relationship-building methods. For instance, one instructor described their ability to relate with older students. The instructor described conversations with older students where the students felt that there was a "neon sign" pointing at them for being older. She said she can relate to students like this because she has also been a student at multiple ages. While she said that this was something she did before the book study, she also described noticing herself relating to students even more since the book study. This related ability is essential given the high proportion of non-traditional-aged students in community colleges. In 2018, 33% of community college students were 25 and older (National Center of Education Statistics [NCES], 2018). Ensuring all students feel comfortable and supported in a classroom is vital to success. This interaction highlights that part of cultural caring and empathy means realizing that sometimes the needs of the students are not always obviously culture-based but are still essential pieces to address. Through these themes, participants illustrated increased engagement in cultural care/empathy and a better understanding of the importance of empathy in the classroom. Ideally, in addition to

98

increased self-efficacy for CRTeaching, these increased values will improve students' sense of belonging and inclusion.

Student Inclusion and Belonging Effects

In addition to understanding instructors' self-efficacy and engagement in teaching, cultural care, and empathy, I also wanted to measure any changes in their students. To this end, I sought to quantify how much belonging and inclusion changed in students after their instructors completed the book study and qualify how that change occurred (RQ3).

No significant changes were found concerning the overall sense of belonging and inclusion for students from Spring 2023 to Fall 2023 ($p > .05$). I also conducted independent sample t-tests for each instructor to assess any significant differences in student belonging in the classroom before and after the instructor participated in the CRT-B book study. The differences were not statistically significant ($p > .05$). Given these slight increases, more time may be needed to observe meaningful differences in students' sense of belonging related to faculty support and empathy.

While the quantitative findings related to changes in students' sense of belonging and inclusion were not statistically significant, many qualitative findings suggested that meaningful changes did indeed occur. I coded many words and phrases during the qualitative analysis of the student data. All the codes were then mapped into four major themes surrounding how instructors helped their students to feel a sense of belonging and inclusion: (1) collaborative, active, (2) empathetic, understanding, (3) responsive, gives feedback, and (4) warmth, welcoming.

Collaborative, Active. There was a relative increase of 6.0% from the spring to fall semester in the proportion of students indicating their instructor was somehow actively involved in the class or collaborative. This difference could be a result of the emphasis that the CRT-B book study and CoP placed on working with and getting involved with student learning. This theme also aligned with the Information Processing component of Hammond's (2014) Ready for Rigor framework. One thing that Hammond recommends is to use formative assessment to increase intellective capacity. Many students reported instructors who frequently had them whiteboarding and working with each other. Many also expanded by adding reflections about how these actions helped them understand the material better and how getting real-time support helped them make appropriate changes in their understanding. Others reported fun games and activities that their instructors deployed that formatively assessed students and gave students responses in real time.

The theme of instructors being collaborative aligned with two themes from the educator findings. Collaborative and active learning in the classroom is often a result of an instructor who is open to m*odifying and changing* their curriculum and applying *neuroscience* to their teaching. For instance, when students described ways their instructors use games and activities to quiz or check in with them, they were likely referring to an instructor who understands that the brain can learn best when someone is having fun in a low-stakes environment. This aligns with the use of neuroscience in the classroom. Other students also described how instructors modified the class material to meet their needs and how this helped them feel belonging.

Empathetic, Understanding. There was a substantial relative increase of 12.2% from the spring to fall semester of the proportion of students indicating their instructor expressed empathy, understanding, or similar qualities. Students reported that when their instructors were empathetic and understanding, they could feel more comfortable and supported in class. This theme aligned with Gay's (2013) cultural caring and Warren's (2018) perspective-taking. Specifically, when students feel their instructors understand their perspective and support them, they experience a greater sense of belonging and, ideally, contribute to improved performance. Many conversations during the CRT-B book study and afterward centered on empathizing with students and seeing their perspectives. Similarly, several instructors reflected on their changes in policy as they learned more about CRTeaching and that those policies evolved to be more understanding of student circumstances.

Student reports of understanding and empathetic instructors aligned with two educator themes. One theme that aligned and was coded as one of the exact words was *understanding*. Another that aligned was when instructors used the word *compassion* to explain their views on students and their interactions. A major recurring topic surrounding these themes was that instructors were willing to be flexible and give grace to their students, which increased students' sense of belonging. Some students reported how much their instructor validated their feelings and supported them in moments of personal crisis and how those instructors often made exceptions for them or allowed them more time to complete assignments when unforeseen circumstances arose. Others described times when they were sick, and their instructor's understanding helped them feel less stressed.

Responsive, Gives Feedback. There was a relative increase of 9.0 % from spring to fall semester in the proportion of students who reported that their instructors were responsive from spring to fall. This increase could result from the book study's emphasis on Hammond's (2014) Ready for Rigor framework. The component that it most aligns with is the Information Processing section. Hammond recommends that instructors provide their students with feedback to increase intellectual capacity. She also emphasizes the importance of cognitive routines for students to help their brain's natural learning systems. Many students reflected on the consistent feedback that they received from their instructors and that they knew they would get a response to a question within a specific timeframe and how comforting this was.

The theme of instructors being responsive and giving feedback aligned with two educator themes: the emphasis on *student learning* and the goal of CRTeaching to *promote rigor*. Some students reported how much they appreciated detailed feedback on assignments from instructors. They said they could make appropriate adjustments based on the feedback. An instructor also discussed a new technique they have tried since the book study of providing their students with the opportunity to respond to feedback on an exam and get credit back on parts that they missed; this is an example of centering student learning while still promoting rigor and making sure that students grasp the content of a class.

Warmth, Welcoming. There was a relative increase of 8.8% from spring to fall semester in the proportion of students who reported an instructor who was welcoming and showed warmth. This theme aligned with recommendations provided by Ackerman-

Barger and Hummel (2015) in that students in this study reported feeling more included when their instructors were friendly, and the classroom environment was welcoming.

The finding that instructors were warm and welcoming led to more inclusion and belonging, which aligned with several educator themes, including *selective vulnerability, sharing similar values and interests*, and *relating to students*. Many students expressed gratitude for instructors who shared their interests with them and related to them on things like having a life outside class. Other students described how they felt included when instructors talked with them about their interests or hobbies or included them or part of their identity in examples and discussions. For instance, one student said that they appreciated that their instructor used specific vocabulary related to sexual orientation and that it helped anyone who struggled with their sexuality feel more comforted. These examples demonstrate instructors caring about students, not just seeing them as names on a roster sheet.

Triangulating Quantitative and Qualitative Data

In the quantitative results of the Educator Survey, the highest pre- and-post averages for educators were in the cultural caring and empathy construct. While the educators' levels of self-efficacy for cultural caring and empathy increased from pre-to-post, the increase was not statistically significant. This could be partly due to the instructor's self-efficacy in showing cultural care and expressing empathy, which was already relatively high. What I found in the qualitative data further supported this finding that educators possessed relatively strong dispositions regarding cultural caring and empathy before the book study because more of the in-vivo codes were related to cultural caring/empathy than CRTeaching. I also found that the highest scores from the Student

Survey in Spring 2023 and Fall 2023 were about empathetic faculty understanding, related to self-efficacy for cultural caring, and empathy on the Educator Survey. Perhaps it is easier for instructors to see themselves as empathetic or caring than it is to see themselves as culturally responsive, relevant, or sustaining in the classroom. This perception incongruence could come down to a need for more understanding of CRTeaching, CRP, and CSP or a hesitancy for some instructors to recognize that they are engaging in their students' cultures and teaching to someone's culture (whether it is their students' culture or not)

Often, instructor hesitancy to apply CRTeaching can be the result of either (a) doubts about CRTeaching being a valid method of teaching, which is unlikely given that the educators in this study chose to be part of the book study, or (b) anxieties about how implementation of CRTeaching will play out in the classroom (Gay, 2013). The initial higher score for cultural caring/empathy as compared to CRTeaching in the Educator Survey, the higher score for faculty empathetic understanding as compared to faculty support and care in the Student Survey, and the use of language more closely related to empathy in both educator responses and student responses reflects this might be the case in EMCC educators as well. Instructors may not be doubtful or anxious about using CRTeaching but may be unaware that some of their work already reflects CRTeaching. This relates to a finding I explore in the next section, which is that several of the educators spoke about being constantly reflective about their practices.

Given these findings, one way to increase interest in CRTeaching could be to help instructors realize that a major part involves connection and empathy. After instructors understand this, they may recognize that they already use empathetic techniques in their

classrooms, making CRTeaching more attainable and manageable. This book study did just that for the participating educators, and such a book study in the future could also do this.

<div align="center">**Other Pertinent Findings**</div>

In addition to the themes that emerged from the interviews with instructors and open-ended responses relating to my three research questions, I also observed other themes related to the purpose of the study, the literature, and the effects of the book study on educators. These themes included how feelings of isolation in CRTeaching and DEI work transitioned into feelings of empowerment, the power of connection with fellow educators, and the power of critical self-reflection (praxis). These themes helped demonstrate further how educators have changed and evolved in their classroom instruction, thinking about teaching, and connection with colleagues since the book study.

<div align="center">**From Fear and Isolation to Hope and Empowerment**</div>

One of the major themes that I observed following the book study was that people engaging in CRTeaching and other DEI-related work often felt isolated and even fearful of engaging in such work. These sentiments reflected nation-wide concerns of many educators given strong anti-DEI movements across college campuses. Three interviewees and three survey respondents reported that the book study helped them to overcome some of those feelings. Sandra reported that,

> It [the book study] was very encouraging . . . I felt isolated in wanting to learn
> more about culturally relevant teaching and how to practice it, how to do it, then
> to kind of find a tribe of other educators that this is something they're very

passionate about. This is something that they believe should be a priority in the classroom, it was very refreshing.

Lana also explained that she has started to overcome the fear of offending her students by discussing things related to culture and social justice. Later, she described how this has positively affected her teaching and students by describing an assignment where students explore facts about divorce rates and apply them to their own lives or use them to relate to people with different experiences than their own. Elanor also described feeling empowered ". . . not only for myself, but you could see how empowering it was for others to also continue doing what they're doing and learning from each other as well."

The Power of Praxis

Critical self-reflection and action, or *praxis*, as described by Freire and Ramos (1970), can create transformational, lasting change. Sandra demonstrated praxis when she described how much she has reflected on herself as an educator and whether she has been engaging in change since the book study. She said, "I find myself second-guessing myself, like a lot . . . maybe on the surface, it might look good, but I don't know if deep down if I really am practicing what I think I am." This statement led to a rich discussion about praxis, its definitions, and applications. We discussed how praxis and the continual drive to better oneself and critically consider our actions and pedagogies are some of the best ways for teachers to grow.

One thing that I like to live by as an instructor is the idea of discomfort. This came up in several interviews, and I will reflect on it as I was a participant in addition to the researcher in this study. We, as educators, often ask our students to do work that

106

makes them uncomfortable because it is new to them. I consider this whenever I give my students a new equation in my Statistics for Psychology class. This makes them uncomfortable because this is the first time they have seen this, and they are worried about whether they will not be able to go through the calculations correctly. It is perplexing that some educators avoid uncomfortable discussions or introspection, as those are precisely the moments where we experience the most growth. To some participants, including myself, the book study and CoP initially felt uncomfortable because it asked for honest reflection and open dialogue about culture, race, equity gaps, and other challenging topics. Leaning into these topics made our group feel more connected, better understand CRTeaching, and more empathetic and caring practices in the classroom. This could also help other educators increase these qualities if they were open to something like book study in the future.

In a related comment, P7 described how reflection has played a large role in their teaching since the book study, explaining that "The key insight I received from the book is the importance of critical reflection upon our own pedagogy and cultural assumptions." This comment aligns with Freire and Ramos's (1970) concept of continuous change and growth aimed at the development of the educator and learner and that both can develop and learn from each other. These interactions demonstrate that the CRT-B book study successfully increased educator self-efficacy for culturally responsive teaching, one of my stated goals.

The Importance of Authentic Connection

Another theme that emerged from all four interviewees and four survey respondents was the idea of connection. All the interviewees and several survey

respondents expressed how they found unanticipated connections through the book study. This sentiment has also been expressed in informal ways, such as the continued group meetings since the conclusion of the book study sessions. P8 described the importance of simply having the space to discuss with colleagues:

> Ultimately, it really came down to being able to talk to my fellow workers about teaching. There is not enough space for this given all our extra administrative tasks, and so what the book study did for me, was to really emphasize how important community is when it comes to being an effective and culturally responsive teacher. I learned so much from my fellow workers!

> Elanor also described the excitement surrounding the sense of community, exclaiming, "oh my God, it's so good to find other people who care about this." I

observed this sentiment after each book study session. For instance, many people who attended the book study sessions in person stayed after the sessions officially ended and continued to visit and spend time with one another, indirectly reinforcing the theme of connection. Our conversations would often oscillate between personal and professional topics. P6 also valued the opportunities to connect with their colleagues by expressing appreciation for "the diverse backgrounds of the participants both academically and culturally, which helped to give insights to ideas of how students and instructors perceive assignments."

While the group continues to meet, I observe positive changes in feelings surrounding the use of CRTeaching and more self-reflective praxis occurring in myself and others in the book study.

Limitations

This action research study provided several insights into how a book study can positively influence self-efficacy and engagement of CRTeaching and cultural care/empathy at a community college; given these findings, it is also important to note that there were some limitations to the study. In this section, I outline those limitations and describe how the study methodology or participants may have limited or influenced the outcome. The first limitation was that the educators who participated in the CRT-B book study were a self-selected group who all wanted to learn more about CRTeaching. The second limitation was that the students I measured in Spring 2023 already had a generally high level of sense of belonging and inclusion. The last limitation was that the two groups of students across the two semesters may have been different due to the relatively more considerable amount of college experience among the Spring 2023 students compared to the Fall 2023 students.

Self-selected Group of Educators

The first limitation of the study was that the educators who participated in the CRT-B book study were a self-selected group of people. This influenced the extent to which generalizable change could occur. The group was composed of educators who were already interested in pursuing ways to increase students' sense of belonging and inclusion through culturally relevant and responsive work. Many in the group also showed interest in diversity, equity, and inclusion work. While this led to authentic connection and rich discussions, the instructors may have come in with higher levels of self-efficacy for aspects such as CRTeaching and cultural care/empathy. Additionally,

their students had an instructor interested in CRTeaching who was likely already applying many of its tenets in the classroom.

Social-Desirability Bias

Given the social norms set out during the book study sessions, some participants may have altered some of their responses to be more socially desirable in post-measures. Additionally, while some of the participants in this study were unknown to me before the book study, several were people whom I consider close colleagues and friends. This may have impacted their responses to my questions in both survey form and interviews. Perhaps the participants wanted to help support my work or want to pursue CRTeaching work in the future, and this consequently affected how they spoke about the book study.

Representation of College Divisions

While the CRT-B book study participants were generally diverse in their representation of different gender identities, ethnicities, and backgrounds, they were not as diverse regarding the academic divisions they represented from our college. Of EMCC's 12 academic divisions, only five were represented in the book study. I would have been especially interested in contributions from Science, Technology, Engineering, and Mathematics (STEM) educators, particularly considering the book's inclusion of some technical and scientific concepts. The book study sessions included rich discussion and learning but might have been even more illuminating with more diverse academic perspectives.

Ribera et al. (2018) found that instructors in STEM put less emphasis on making their teaching culturally inclusive than instructors in other subjects. More so, faculty of color, in STEM and non-STEM fields, typically focus more on making their teaching

culturally inclusive than White faculty. In STEM, where most professors are White, it is concerning that there is less emphasis on inclusive teaching practices. This becomes a bigger problem because faculty of color must take on the extra responsibility of promoting diversity and creating inclusive environments while also dealing with their challenges. We also notice this happening with women faculty, especially those who belong to multiple marginalized groups.

High Sense of Belonging in Students

Given that the instructors who participated in the book study were a self-selected group with a pre-existing interest in CRTeaching and supporting students, I suspect this impacted the scores on the Student Survey. The student scores for Spring 2023 reflected instructors who had already instilled a sense of belonging and inclusion in students. The instructors in the book study demonstrated a great deal of interest and care when teaching their students, and therefore, most of their students reported a high sense of belonging and inclusion.

In the original study by Hoffman et al. (2002), in which the Sense of Belonging scale was developed, the researchers found student average ratings for perceived faculty support and caring and empathetic faculty understanding to be 3.79 and 3.80, respectively. These averages were well below EMCC students' averages (Spring averages for faculty support and caring and empathetic faculty understanding were 4.58 and 4.68, respectively). Given these high EMCC scores, there was less growth possible to demonstrate between Spring and Fall of 2023. I provided the Spring 2023 data to participants in the book study, and we all referred to this ceiling effect limitation as a "good problem" to have.

Difference in "Time at EMCC" Between Spring and Fall 2023 Students

While generally, the student samples did not differ between Spring 2023 and Fall

2023, one notable difference could have impacted the data. Students in Spring 2023,

before their instructors participated in the book study, had been at EMCC longer than the

students in the Fall 2023 sample. The students in Spring 2023 had been at EMCC for an

average of 2.0 years (*median* = 2.0), while Fall 2023 students had been at EMCC for an

average of 1.8 years (*median* = 1.5). These data indicate that the Fall 2023 students in the

Student Survey had been at EMCC for nearly one semester less than students who took

the survey in the spring. I used an independent means t-test to determine if the number of

years at EMCC significantly differed between Spring and Fall 2023 students; the

difference was nearing statistical significance (p = .06). This may have impacted the

sense of belonging and inclusion that those students reported because the additional time

at EMCC for the spring students may have contributed to their belonging scores,

especially considering that sense of belonging is typically lower in the first year

following a transition, such as from high school to college (Yeager et al., 2016).

Recommendations and Future Directions

I begin this section with a recommended conceptual framework for educators to

increase buy-in to implement CRTeaching, cultural care, and empathy in the classroom.

Then, I outline other recommendations for practitioners.

Culturally Responsive, Empathetic, Action-Oriented, Thoughtful, and Empowering (CREATE) Education: A Conceptual Framework

Based on the findings in this mixed-methods study, particularly the qualitative

findings, I created a conceptual framework for the: what, why, and how of Culturally

Responsive, Empathetic, Action-Oriented, Thoughtful, and Empowering (CREATE) Education. This framework can be used as a guide for educators to share with others interested in CRTeaching, cultural care, and empathy, or can be used as a mechanism for increasing buy-in from educators who are less interested or unsure about these topics. I organized the educator themes into three categories: what CREATE Education is, why educators should consider using CREATE Education, and how educators can implement CREATE Education in their teaching (see Figure 6 for a complete framework).

The first component of the framework describes CREATE Education. CREATE Education is critical in that it encourages *cultural competence* and *critical consciousness*. CREATE Education is also intersectional; it is *about more than race* and emphasizes an understanding of *individualist vs. collectivist thinking*.

The second component of the framework describes why it is essential to implement a CREATE Education method. CREATE Education centers the student, encourages *student learning*, and *promotes rigor*. These themes align with the student theme of responsiveness and giving feedback. CREATE Education is also crucial because it helps transform students via reciprocity and humanism in that *students are attended to as people*, and instructors use *cultural reciprocity*. Another reason why CREATE Education is vital is that it leads to *educator empowerment* via *connection* and *praxis*; these themes were outlined in the Other Pertinent Findings section of this chapter.

The third component recommends how such a method can be implemented. One way to implement CREATE Education is to demonstrate care and empathy by showing *compassion* and *understanding*, being *selectively vulnerable*, *relating* to students, and sharing *similar interests and values*. These themes also align with the student theme of

empathy and understanding. Another way to implement CREATE Education is to create learning partnerships with students by being willing to *modify and change*, apply tenets of *neuroscience*, and give *real-world examples*. These themes align with the student theme of being collaborative and active in the classroom. One can also implement CREATE Education by practicing mindfulness about being *inclusive*, recognizing that your *words* and *behaviors matter*, and acknowledging *student stress and trauma*. These themes align with the student theme of warmth and welcoming.

Figure 6

The What, Why, and How of CREATE Education
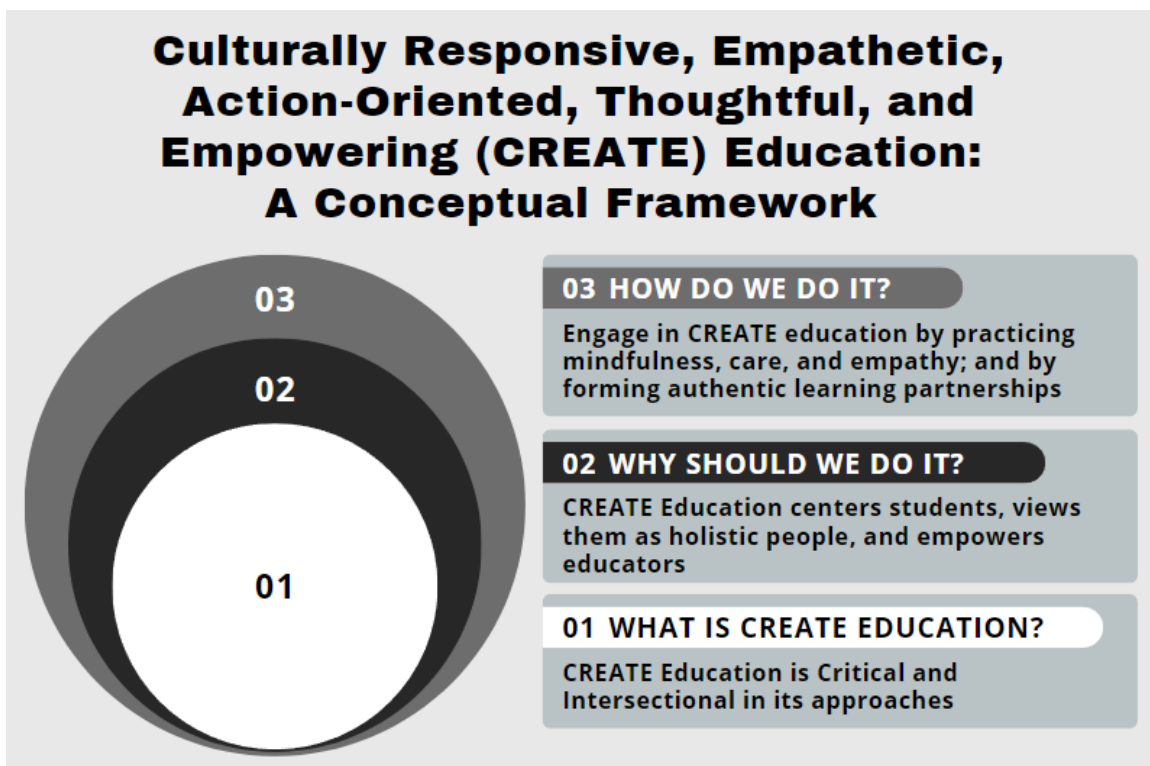
Further Recommendations for Scholarly Practitioners and Future Directions

I learned a great deal about my fellow educators throughout this dissertation process. One thing I learned was that educators crave authentic connections. In my study,

several participants reported how much they appreciated connecting on a common interest without any other significant expectations. At EMCC, we have several initiatives required of us, and they are often asked of us in a top-down fashion. Some of the educators in the group implied that these initiatives can be fatiguing and feel like they need to be more authentic. Given this, one primary recommendation is to focus on what the C in CoP stands for—community. While the book study sessions were very productive and had a lot of great sharing of pedagogies and practices, it is even more telling that some of the group continued to meet and discuss teaching afterward. This helped to highlight the importance of community and feeling supported by fellow educators. Some participants also shared with me that the book study and community was a very helpful take on professional development instead of a one-day training or other traditional methods.

As I discussed in the limitations section, the limited student change can be partly attributed to instructors being a self-selected group of educators who already had an interest in CRTeaching. Therefore, a recommendation for future research is to require educators to participate in a book study. This could come with its own set of issues, given that some people might be opposed due to not being as interested or simply disliking the topic. One way to work around this is to have several books as options for a required book study. All the books could have a more prominent theme (increasing inclusion and belonging for students), and the books could focus on slightly different methods to achieve the overarching goal.

The educator changes in cultural care and empathy were not statistically significant at the $p < .05$ level, this could be influenced by the ceiling effect of high

baseline levels of self-efficacy reports at the onset of the study. One method that could mitigate such issues in the future would be to use a retrospective pre-post design for the educator survey. In a retrospective pre-post design, participants complete questions in a survey before and after an intervention, and a retrospective survey assessing their current and past attitudes. This method could potentially address the ceiling effect issue that could be explained possibly by a lack of awareness at the onset of where self-efficacy for cultural care and empathy lies. Retrospective pre-post designs consistently show larger program or intervention effects than direct pre- and post-score comparisons, particularly in subjective measures like attitudes and beliefs (Geldhof, 2018). A retrospective pre-post design could also perhaps increase the number of participants in the sample, as some people were not included in the final analysis because they only took the survey once, either the pre-survey or the post-survey.

As a future direction, I plan to further analyze the student qualitative data to determine if and how various classroom practices affect students of many intersecting identities. To do this, I plan to quantify the qualitative codes to gauge the extent of belonging the students felt. With these data, I plan to run regression analyses to see how intersecting identities (such as race, ethnicity, gender identity, first-generation student status, and age) predict reports of inclusion and belonging and how groups differ in their experiences. Hopefully, this will help address the problem of practice at EMCC of significant student equity gaps.

The Effect on the Researcher and Concluding Thoughts

This research study profoundly impacted my classroom practices and significantly affected how I engage with students and interact with colleagues. I found that instructors

on the EMCC campus are craving connection and community. I also discovered that some instructors feel isolated, particularly those who engage in culturally responsive, sustaining, and DEI work. This is a result of the climate on our campus and the larger political climate. Most of the students of instructors who practice CRTeaching and other student-centered pedagogies shared positive feedback about their instructors and described several ways that their instructors supported them and fostered a sense of belonging and inclusion in the classroom. Also, a book study can be an excellent way to cultivate a community of instructors to share their own experiences and grow their practices. Beyond the book providing valuable ideas, the themes it covered fostered a space for instructors and educators to share their practices and encouraged reflection and praxis. This space, in addition to the book itself, influenced instructors' ability to change and learn.

Another thing I learned while working on this dissertation was how much it means when an instructor sees you as a holistic person and shows you compassion and grace. Beginning a doctoral program during the COVID-19 pandemic and simultaneously being a teacher and student pushed me to far levels. The struggles that I faced as a student in the doctoral program would, in turn, circle back and make me a more empathetic and understanding instructor. I experienced empathetic instructors in my program and wanted to make sure that I was also showing that kind of empathy to my students. Not only did my dissertation research shape my instruction, so did my experiences of being a student with several instructors at Arizona State University (ASU) who showed me grace and understanding when things came up.

The ASU Ed.D. program also taught me the importance of qualitative data collection and analysis. Coming from a background in Psychology that primarily emphasizes quantitative data as more accurate and less biased, I initially entered the program with the mindset that quantitative data was inherently more "scientific" than qualitative data. I regret having valued quantitative methods over qualitative ones for many years, viewing the latter as less empirical and legitimate. However, this ongoing internal dialogue is a common discourse in various behavioral science fields, and I continue learning as I develop as a scholarly practitioner.

Through my qualitative findings on culturally responsive practices, I discovered the use of a culturally responsive lens as a research method that values the cultural backgrounds of participants and researchers in a study. Berryman et al. (2013) highlighted the significance of such culturally responsive methods to deconstruct Western colonial traditions of research and frame research as a dialogical process. This resonated with me, as I had previously viewed certain research methods as less empirical before joining this doctoral program. It made me realize the importance of studying "with" a population rather than merely studying "of" that group.

One disappointing finding of the study was the lack of participation in the book study or CoP among educators in STEM. Even though I selected a book based on neuroscience, few STEM educators joined the group. Black/African American, Latina/o/e, Native American, and Alaska Native individuals are underrepresented in STEM careers compared to the overall U.S. population (U.S. Census Bureau, 2018). This lack of diversity is also observed in students majoring in STEM at colleges and universities (National Academies of Sciences, 2016). O'Leary et al. (2020) argue that

colleges should provide students with the opportunities to prepare for these fields. However, such equity gaps only contribute further to issues of disproportionate representation in STEM fields. These disparities highlight the need for more support for diverse students in STEM classes, and one goal of this book study was to engage STEM instructors more fully. However, this goal remains unrealized, and I have pondered a great deal about possible courses of action since the book study.

O'Leary et al. (2020) explain that instructors might not automatically consider that they possess social backgrounds and a sense of belonging different from their students. Recognizing this privilege gap, which can strongly impact persistence, is a critical first step in making instructors better practitioners of CRTeaching and their classrooms more inclusive (Killpack & Melon, 2016). We at EMCC could increase the use of CRTeaching and other related practices through the CREATE Education conceptual framework I developed. This framework describes what CREATE Education is, why it is essential, and provides several ways educators can apply a CREATE Education approach in the classroom.

Changing pedagogy to shift our current paradigm requires a systemic process. Engaging both instructors and students in CREATE Education is one step toward making education at MCCCD more accessible. As a Hispanic and Minority Serving Institution, we must be principled in our efforts to sustain and encourage all students to succeed in their efforts of bettering their lives.

REFERENCES

Ackerman-Barger, K., & Hummel, F. (2015). Critical race theory as a lens for exploring inclusion and equity in nursing education. *Journal of Theory Construction & Testing, 19*(2), 39–46.

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review, 84*(2), 191. https://doi.org/10.1037/0033-295X.84.2.191

Barnes, R. (1990). Race consciousness: The thematic content of racial distinctiveness in critical race scholarship. *Harvard Law Review, 103*, 1864–1871. https://doi.org/10.2307/1341320

Bell, D. (1973). *Race, racism, and American law.* Little, Brown.

Berryman, M., SooHoo, S., Nevin, A., Barrett, T. A., Ford, T., Nodelman, D. J., Valenzuela, N., & Wilson, A. (2013). Culturally responsive methodologies at work in education settings. *International Journal for Researcher Development, 4*(2), 102-116. DOI:10.1108/IJRD-08-2013-0014

Brayboy, B. M. J., Fann, A. J., Castagno, A. E., & Solyom, J. A. (2012). *Postsecondary education for American Indian and Alaska Natives: Higher education for nation building and self-determination: ASHE Higher Education Report 37: 5 (Vol. 37, No. 5).* John Wiley & Sons.

Butin, D. W. (Ed.). (2009). *The education dissertation: A guide for practitioner scholars.* Corwin Press.

Cabrera, N. L., Milem, J. F., Jaquette, O., & Marx, R. W. (2014). Missing the (student achievement) forest for all the (political) trees: Empiricism and the Mexican American studies controversy in Tucson. *American Educational Research Journal, 51*(6), 1084–1118.

Cabrera, N. L., Milem, J. F., & Marx, R. W. (2012). An empirical analysis of the effects of Mexican American Studies participation on student achievement within Tucson Unified School District. *Tucson, AZ: Report to Special Master Dr. Willis D. Hawley on the Tucson Unified School District Desegregation Case.*

Cahalan, M. W., Addison, M., Brunt, N., Patel, P. R., & Perna, L. W. (2021). Indicators of Higher Education Equity in the United States: 2021 Historical Trend Report. *Pell institute for the study of opportunity in higher education.*

Cantú, L., Manning, L., & Wager, E. (2022, Nov. 9). *Learning from our students to better serve them*. [Conference presentation]. 2022 Student Success Conference: Equity and Student Success, Virtual Conference, Maricopa County Community Colleges District, United States.

Carbado, D. W., Crenshaw, K. W., Mays, V. M., & Tomlinson, B. (2013). Intersectionality: Mapping the movements of a theory. *Du Bois review: social science research on race, 10*(2), 303–312. https://doi.org/10.1017/S1742058X13000349

Carnevale A. P., & Strohl J. (2013). Separate and unequal: How higher education reinforces the intergenerational reproduction of white racial privilege, Washington, DC: Georgetown Public Policy Institute.

Carter, K., Cushing, K., Sabers, D., Stein, P., & Berliner, D. (1988). Expert-novice differences in perceiving and processing visual classroom stimuli. *Journal of Teacher Education, 39*(3), 25–31.

Center for Community College Student Engagement (2017). Even one semester: Full-time enrollment and student success. *Center for Community College Student Engagement*

Cerezo, A., & McWhirter, B. (2012). A brief intervention designed to improve social awareness and skills to improve Latino college student retention. *College Student Journal, 46*(4), 867–879. https://doi.org/10.1177/002248718803900306

Chetty, R., Hendren, N., Jones, M. R., & Porter, S. R. (2020). Race and economic opportunity in the United States: An intergenerational perspective. *The Quarterly Journal of Economics, 135*(2), 711-783.

Cobb, J. (2021). The Man Behind Critical Race Theory. The New Yorker; The New Yorker. https://www.newyorker.com/magazine/2021/09/20/the-man-behind-critical-race-theory

 Community College FAQs. (2020). Community College Research Center. https://ccrc.tc.columbia.edu/community-college-faqs.html

Crenshaw. K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum, 1989*, 139–167.

Crenshaw, K., Gotanda, N., Peller, G. & Thomas, K. (Eds) (1995) *Critical race theory: The key writings that formed the movement* (New York, The New Press).

Creswell, J. W., & Guetterman, T. C. (2019). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (6th ed.). Pearson.

Dixson, A. D., & Rousseau, C. K. (2005). And we are still not saved: Critical race theory in education ten years later. *Race Ethnicity and Education, 8*(1), 7–27. https://doi.org/10.1080/1361332052000340971

Edpuzzle | Make any video your lesson. (2021). Edpuzzle. https://edpuzzle.com/

Espinosa, L. L., Turk, J. M., Taylor, M., & Chessman, H. M. (2019). *Race and ethnicity in higher education: A status report.* Washington, DC: American Council on Education. Washington, DC.

Estrella Mountain Community College. (n.d.) Canvas Studio. https://learn.maricopa.edu/

Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (3rd ed.). SAGE Publications.

Flanagin, A., Frey, T., Christiansen, S. L., & AMA Manual of Style Committee. (2021). Updated guidance on the reporting of race and ethnicity in medical and science journals. *Jama, 326*(7), 621-627. doi:10.1001/jama.2021.13304

Flood, J., Lapp, D., Alvarez, D., Romero, A., Ranck-Buhr, W., Moore, J., Jones, M.A., Kabildis, C., Langren, L. (1994). *Teacher book clubs: A study of teachers' and student teachers' participation in contemporary multicultural fiction literature discussion groups* (No. 22). National Reading Research Center.

Freire, P., & Ramos, M. B. (1970). *Pedagogy of the oppressed.* New York, Seabury Press.

Gaudreau, N., Royer, É., Frenette, É., Beaumont, C., & Flanagan, T. (2013). Classroom behaviour management: The effects of in-service training on elementary teachers' self-efficacy beliefs. *McGill Journal of Education, 48*(2), 359–382. https://doi.org/10.7202/1020976ar

Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). Teachers College.

Gay, G. (2013). Teaching to and through cultural diversity. Curriculum Inquiry, 43, 48–70. https://doi.org/10.1111/curi.12002

Geldhof, G. J., Warner, D. A., Finders, J. K., Thogmartin, A. A., Clark, A., & Longway, K. A. (2018). Revisiting the utility of retrospective pre-post designs: the need for mixed-method pilot data. *Evaluation and program planning, 70,* 83-89. https://doi.org/10.1016/j.evalprogplan.2018.05.002

Given, L. M. (2008). *Thematic Coding and Analysis.* SAGE Publications Ltd, https://dx.doi.org/10.4135/9781412963909

Gonzales, S. R. (2021, September 29). Key updates on 4DX: MCCCD's WIG.

Guinier, L. (1991). The triumph of tokenism: The Voting Rights Act and the theory of Black electoral success. *Michigan Law Review, 89*(5), 1077-1154.

Guskey, T. (2010). Professional development and teacher change. *Teachers and Teaching, Theory and Practice, 8*(3), 381–391. https://doi.org/10.1080/135406002100000512

Hammond, Z. (2014). *Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students.* Corwin Press.

Haeger, H., & Fresquez, C. (2016). Mentoring for inclusion: The impact of mentoring on undergraduate researchers in the sciences. *CBE—Life Sciences Education, 15*(3), 36. https://doi.org/10.1187/cbe.16-01-0016

Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention: Research, Theory & Practice, 4*(3), 227–256.

Holoien, D. S., & Shelton, J. N. (2012). You deplete me: The cognitive costs of colorblindness on ethnic minorities. *Journal of Experimental Social Psychology, 48*(2), 562-565. https://doi.org/10.1016/j.jesp.2011.09.010

Hope, J. (2022). New research reveals enrollment trends. *Recruiting & Retaining Adult Learners, 25*(2), 9–9. https://doi.org/10.1002/nsr.30948

Hubbard, C., Rolfes, M., Hussak, L., Richards, R., & Hinnenkamp, K. (2018). Reframing the question of equity: Understanding the growing importance of success for community colleges' part-time students. *EAB Global*, 2018-07.

Hung, H. T., & Yeh, H. C. (2013). Forming a change environment to encourage professional development through a teacher study group. *Teaching and Teacher Education, 36*, 153–165. https://doi.org/10.1016/j.tate.2013.07.009

HyperRESEARCH 3.7.3. Computer Software, Researchware, Inc., 2015. <http://www.researchware.com/>.

IBM Corp. Released 2021. IBM SPSS Statistics for Windows, Version 28.0. Armonk, NY: IBM Corp

James-Gallaway, C. D., Georges Jr, C. T., & Wilson, A. (2020). Equity and Justice: How One Community College Addressed Racial Equity Gaps through a Professional Development Opportunity. Pathways to Results. Implementation Partnerships Strategy Brief. *Office of Community College Research and Leadership.*

Juszkiewicz, J. (2020). Trends in community college enrollment and completion data, Issue 6. American Association of Community Colleges. Distributed by ERIC Clearinghouse.

Ladson-Billings, G. (1995a). But that's just good teaching! The case for culturally relevant pedagogy. Theory into Practice, 43, 159–165. doi:10.1080/00405849509543675

Ladson-Billings, G. (1995b). Toward a theory of culturally relevant pedagogy. American Educational Research Journal, 32, 465–491. doi:10.3102/00028312032003465

Ladson-Billings, G., & Tate IV, W. (1995). Toward a critical race theory of education. *Teachers College Record, 97*(1), 47–68. https://doi.org/10.1177/016146819509700104

Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: a.k.a. the remix. *Harvard Educational Review, 84*(1), 74–84. https://doi.org/10.17763/haer.84.1.p2rj131485484751

Ladson-Billings, G. (2016). Who can teach our children? Re-stating the case for culturally relevant teaching. *Michigan Reading Journal, 48*(2), 8. https://scholarworks.gvsu.edu/mrj/vol48/iss2/8

Lamont, W. K., & Black-Branch, J. L. (1996, April 8–12). *Cultural reciprocity: Exploring the impacts of cross-cultural instruction on professorial self-reflection* [Paper Presentation]. Annual Meeting of the American Educational Research Association, Ney York, NY, United States.

Lave, J., & Wenger, E. (1998). Legitimate peripheral participation. Learners, learning and assessment, *London: The Open University,* 83–89.

Ledesma, M. C., & Calderón, D. (2015). Critical race theory in education: A review of past literature and a look to the future. *Qualitative Inquiry, 21*(3), 206–222. https://doi.org/10.1177/1077800414557825

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology.*

Mack, K., & Palfrey, J. (2020). Capitalizing Black and White: Grammatical justice and equity. *Retrieved from MacArthur Foundation website: https://www.macfound.org/press/perspectives/capitalizing-black-and-white-grammatical-justice-and-equity.*

Maricopa Community Colleges. (2020). Performance monitoring report. Tempe, Az.

McCarty, T., & Lee, T. (2014). Critical culturally sustaining/revitalizing pedagogy and Indigenous education sovereignty. *Harvard educational review, 84*(1), 101-124.

Mertler, C. A. (2019). *Action research: Improving schools and empowering educators.* (4th Edition). Sage Publications.

Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into practice, 31*(2), 132-141.

Morales, E. (2019). *Latinx: The new force in American politics and culture.* Verso Books.

Multon, K., & Coleman, J. (Eds.) (2010). (Vols. 1-0). SAGE Publications, Inc., https://doi.org/10.4135/9781412961288

National Academies of Sciences, Engineering, and Medicine. (2016). Barriers and opportunities for 2-year and 4-year STEM degrees: Systemic change to support students' diverse pathways.

O'Leary, E. S., Shapiro, C., Toma, S., Sayson, H. W., Levis-Fitzgerald, M., Johnson, T., & Sork, V. L. (2020). Creating inclusive classrooms by engaging STEM faculty in culturally responsive teaching workshops. *International Journal of STEM education*, *7*, 1-15. https://doi.org/10.1186/s40594-020-00230-7

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational researcher, 41*(3), 93–97. https://doi.org/10.3102/0013189X12441244

Rosenthal, R. (1991). Effect sizes: Pearson's correlation, its display via the BESD, and alternative indices. *American Psychologist, 46*(10), 1086–1087. https://doi.org/10.1037/0003-066X.46.10.1086

Rousseau, C. & Tate, W. (2003) No time like the present: Reflecting on equity in school mathematics, *Theory Into Practice, 42*(3), 210–216. https://doi.org/10.1207/s15430421tip4203_7

Santa Cruz, N. (2010, May 12). Arizona bill targeting ethnic studies signed into law. *Los Angeles Times.* Retrieved from https://www.latimes.com/archives/la-xpm-2010-may-12-la -na-ethnic-studies-20100512-story.html.

Singleton, G., & Linton, C. (2006). *Courageous Conversations about Race: A Field Guide for Achieving Equity in Schools.* Thousand Oaks, CA: Corwin Press.

Shapiro, D., Dundar, A., Huie, F., Wakhungu, P. K., Yuan, X., Nathan, A., & Hwang, Y. (2017). *A national view of student attainment rates by race and ethnicity–Fall 2010 cohort.* (Signature Report No. 12b). Herndon, VA: National Student Clearinghouse Research Center.

Siwatu, K.O. (2006). The development of the culturally responsive teaching competencies: Implications for teacher education. *Manuscript.*

Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. *Teaching and teacher education, 23*(7), 1086–1101. https://doi.org/10.1016/j.tate.2006.07.011

Slemp, K. (2020). *Latino, Latina, Latin@, Latine, and Latinx: gender inclusive oral expression in Spanish* (Doctoral dissertation, The University of Western Ontario, Canada).

Solórzano, D. G. (1998). Critical race theory, race and gender microaggressions, and the experience of Chicana and Chicano scholars. *International Journal of Qualitative Studies in Education, 11*(1), 121–136. https://doi.org/10.1080/095183998236926

Spindler, G., & Spindler, L. (1989). Instrumental competence, self-efficacy, linguistic minorities, and cultural therapy: A preliminary attempt at integration. *Anthropology & Education Quarterly, 20*(1), 36–45. https://doi.org/10.1525/aeq.1989.20.1.05x1210n

Sublett, C. (2020). Distant equity: The promise and pitfalls of online learning for students of color in higher education. *American Council on Education, Washington DC.*

Thornberg, R., & Charmaz, K. (2014). Grounded theory and theoretical coding. *The SAGE handbook of qualitative data analysis, 5*, 153-69.

U.S. Census Bureau (2018). Quick Facts. https://www.census.gov/quickfacts/fact/table/US/PST045216.

Warren, C. A. (2014). Towards a pedagogy for the application of empathy in culturally diverse classrooms. *The Urban Review, 46*(3), 395–419. https://doi.org/10.1007/s11256-013-0262-5

Warren, C. A. (2018). Empathy, teacher dispositions, and preparation for culturally responsive pedagogy. *Journal of Teacher Education, 69*(2), 169–183. https://doi.org/10.1177/0022487117712487

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* Cambridge University Press.

Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge.* Harvard business press.

Wenger, E. (2011). Communities of practice: A brief introduction.

Wilcoxon, F. (1945). Individual comparisons by ranking methods. *Biometrics, 1*, 80-83

Woolfolk Hoy, A., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education, 21*(4), 343–356. https://doi.org/10.1016/j.tate.2005.01.007

Yasso, T.J., Smith, W.A., Ceja, M., Solorzano, D.G. (2009) Critical race theory, racial microaggressions, and campus racial climate for Latina/o undergraduates. *Harvard Educational Review, 79* (4), 659–690. https://doi.org/10.17763/haer.79.4.m6867014157m707l

Yeager, D. S., Walton, G. M., Brady, S. T., Akcinar, E. N., Paunesku, D., Keane, L., Kamentz, D., Ritter, G., Duckworth, A. L., Urstein, R., Gomez, E.M., Markus, H. R., Cohen, G. L., & Dweck, C. S. (2016). Teaching a lay theory before college narrows achievement gaps at scale. *Proceedings of the National Academy of Sciences*, *113*(24), E3341-E3348. https://doi.org/10.1073/pnas.1524360113

APPENDIX A

ASU IRB APPROVAL: EXEMPTION GRANTED

EXEMPTION GRANTED

Eugene Judson
MLFTC: Educational Leadership and Innovation, Division of
480/727-5216
Eugene.Judson@asu.edu

Dear Eugene Judson:

On 4/6/2023 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Exploring the use of a Culturally Responsive Teaching Book Study at an Arizona Community College: Influence on Instructor Self-Efficacy, Cultural Caring/Empathy, and Student Belonging & Equity Gaps
Investigator:	Eugene Judson
IRB ID:	STUDY00017800
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Faculty Consent Form, Category: Consent Form; • Faculty Interview Qs, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Faculty recruitment email, Category: Recruitment Materials; • Faculty Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Possible book study session agenda.pdf, Category: Participant materials (specific directions for them); • Student Consent Form, Category: Consent Form; • Student recruitment message, Category: Recruitment Materials;

	• Student Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • V2 Protocol , Category: IRB Protocol;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2)(ii) Tests, surveys, interviews, or observation (low risk) on 4/6/2023.

When consent is appropriate, you must use final, watermarked versions available under the "Documents" tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at research.integrity@asu.edu to determine if additional reviews/approvals are required. Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

Sincerely,

IRB Administrator
cc: Erica Wager
        Erica Wager

APPENDIX B

ASU IRB APPROVAL: MODIFICATION

APPROVAL: MODIFICATION

Eugene Judson
MLFTC: Educational Leadership and Innovation, Division of
480/727-5216
Eugene.Judson@asu.edu

Dear Eugene Judson:

On 5/3/2023 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	Exploring the use of a Culturally Responsive Teaching Book Study at an Arizona Community College: Influence on Instructor Self-Efficacy, Cultural Caring/Empathy, and Student Belonging & Equity Gaps
Investigator:	Eugene Judson
IRB ID:	STUDY00017800
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Faculty Consent Form, Category: Consent Form; • Faculty recruitment email, Category: Recruitment Materials; • V3 Protocol , Category: IRB Protocol;

The IRB approved the modification.

When consent is appropriate, you must use final, watermarked versions available under the "Documents" tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Erica Wager
        Erica Wager

APPENDIX C

INVITATION EMAIL SENT TO EMCC INSTRUCTORS

Subject line: Action Research for Dissertation using Book Study!

Body of email:

Hello EMCC!

As some of you may know, I am working on my Ed.D. at ASU right now. I'm interested in studying how various activities/learning opportunities at EMCC can impact our knowledge and practices with our students. This is where you come in!

For my dissertation I am planning a book study with the book *Culturally Responsive Teaching and The Brain: Promoting Authentic Engagement and Rigor Among Culturally and Linguistically Diverse Students* by Zaretta Hammond. I ask you all to consider participating in my research study using this book study. All instructors are invited to join! Whether you teach a full load or one class here at EMCC, I'd love your participation. Your participation would include meeting in a hybrid setting (in-person on EMCC campus or online) three times over the summer to discuss the book. Meetings would last about one and a half hours. I will also ask that participants complete a pre- and post-intervention survey and ask a subset to participate in a semi-structured interview with me after the book study. In addition to taking surveys as instructors, I will ask that you give your students a survey about their sense of belonging and perceptions of you as a supportive instructor. One will be provided this semester (Spring, 2023) and another will be provided in Fall, 2023. Your participation in this study will be completely voluntary and you may withdraw at any time, additionally all data collected will remain anonymous in reports of the findings.

If you're willing, please respond to this email with your **name, MEID, and classes that you teach**. Additionally, the first TEN people that agree to participate in my

study via email will receive the book FREE!! I will also be selecting 3 people that complete the study and all surveys in Fall 2023 for $50 gift certificates to Amazon.

-Erica Wager, ABD Ed.D. Leadership and Innovation at Arizona State University

APPENDIX D

EXAMPLE AGENDA FOR BOOK STUDY SESSION ONE

Introductions and guidelines for the book study group

10:00-10:15 – Introductions

Discussion of Part I: Building Awareness and Understanding

10:15-10:30 am - Initial reactions and discussion

10:30-11:15 am - Discussion of Ready for Rigor framework

AWARENESS

- Understand the three levels of culture
- Recognize cultural archetypes of individualism and collectivism
- Understand how the brain learns
- Acknowledge the socio-political context around race and language
- Know and own your cultural lens
- Recognize your brain's triggers around race and culture
- Broaden your interpretation of culturally and linguistically diverse students learning behaviors

LEARNING PARTNERSHIPS

- Reimagine the student and teacher relationship as a partnership
- Take responsibility to reduce students' social-emotional stress from stereotype threat and microagressions
- Balance giving students both care and push
- Help students cultivate a positive mindset and sense of self-efficacy
- Support each student to take greater ownership for his learning
  - Give students language to talk about their learning moves

Affirmation Instructional Conversation

Students are Ready for Rigor and Independent Learning

Wise Feedback Validation

INFORMATION PROCESSING

- Provide appropriate challenge in order to stimulate brain growth to increase intellective capacity
- Help students process new content using methods from oral traditions
- Connect new content to culturally relevant examples and metaphors from students' community and everyday lives
- Provide students authentic opportunities to process content
- Teach students cognitive routines using the brain's natural learning systems
- Use formative assessments and feedback to increase intellective capactiy

COMMUNITY OF LEARNERS AND LEARNING ENVIRONMENT

- Create an environment that is intellectually and socially safe for learning
- Make space for student voice and agency
- Build classroom culture and learning around communal (sociocultural) talk and task structures
- Use classroom rituals and routines to support a culture of learning
- Use principles of restorative justice to manage conflicts and redirect negative behavior

Possible questions to lead discussions (not required):

1. When you hear the term culturally responsive teaching, what does that mean to you? How would you describe its purpose, elements and features?

2. How do you think CRT fits with some of EMCC's initiatives or with aspects of your own personal equity journey?

3. How would you describe your cultural background?

4. Why is examining one's own implicit bias not enough to become a culturally responsive educator? Why do you need to understand how structural racialization works?

5. Did you have any questions about the anatomy discussed in the "Your brain on culture" chapter? How can we as educators help students avoid the "amygdala hijack"?

11:15-11:30 am - Final wrap up and action items

APPENDIX E

EDUCATOR SURVEY

Identifier:

To protect your confidentiality, please create a unique identifier known only to you. To create this unique code, please record the first three letters of your mother's first name (or your primary caregiver's name) and the last four digits of your phone number. Thus, for example, if your mother's name was Sarah and your phone number was (602) 543-6789, your code would be Sar6789. The unique identifier will allow us to match pre- and post-responses when we analyze the data while still keeping your identity anonymous.

My unique identifier is: _____ (e.g., Sar6789, see paragraph above)

Please rate how confident you are in your ability to engage in all of the following teaching practices on a scale from 1-5.

1=not at all confident,
2=only slightly confident,
3=somewhat confident,
4=very confident,
5=extremely confident

1. Adapt instruction in a single class session to meet the needs of my students (CR)

   Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

2. Adapt instruction throughout the semester to meet the needs of my students (CR)

   Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

3. Obtain information about my students' academic strengths (GI)

   Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

4. Obtain information about my students' academic weaknesses (GI)

   Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

5. Obtain information about my students' home life (CR)

   Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

6. Implement strategies to minimize the effects of the mismatch between my

   students' home culture and the school culture (CR)

   Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

7. Assess student learning using various types of assessments (GI)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

8. Build a sense of trust within my students (CC/E)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

9. Help establish positive home-school relations (CR)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

10. Use a variety of teaching methods throughout the semester (GI)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

11. Develop a community of learners who car for each other throughout the semester (CC/E)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

12. Use my students' cultural backgrounds to help make learning meaningful (CR)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

13. Use my students' prior knowledge to help them make sense of new information (CR)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

14. Identify ways how students communicate at home may differ from the school norms (CR)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

15. Obtain information about my students' cultural background (CR)

> Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

16. Design a classroom environment using displays that reflect a variety of cultures (CR)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

17. Develop a personal relationship with my students (CC/E)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

18. Identify ways that standardized tests may be biased towards linguistically diverse students (CR)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

19. Put myself in my students' shoes, particularly students with different cultural backgrounds than myself (CC/E)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

20. Revise instructional material to include a better representation of cultural groups (CR)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

21. Critically examine the curriculum to determine whether it reinforces negative cultural stereotypes (CR)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

22. Help students feel like important members of the classroom (CC/E)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

23. Identify ways that standardized tests may be biased towards culturally diverse students (CR)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

24. Use examples that are familiar to students from diverse cultural backgrounds (CR)

Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

25. Explain new concepts using examples that are taken from my students' everyday

    lives (CR)

    Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

26. Obtain information regarding my students' academic interests (GI)

    Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

27. Use the interests of my students to make learning meaningful for them (CR)

    Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

28. Create a space where my students feel like they belong (CC/E)

    Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

29. Create a space where my students feel like they're included in the material

    (CC/E)

    Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

30. Include my students in the formation of curriculum and material (CR)

    Not at all confident   1 ---- 2 ---- 3 ---- 4 ---- 5   Extremely confident

For the **post assessment only**, I will also ask the following open-ended questions:

31. Describe how the book study affected your ability to teach in culturally

    responsive ways. Please use examples when you can.

32. Describe how the book study affected your intent to engage in cultural

    caring/empathy with your students (e.g., have you noticed yourself taking the

    perspectives of your students more recently?). Please use examples when you can.

How many years have you been working as a faculty/instructor in your discipline?

Please state your current employment status

Full time employee of EMCC and Adjunct Faculty, Employed elsewhere and

Adjunct Faculty, Retired/not employed elsewhere Adjunct Faculty, Residential

Faculty, OYO/OSO Faculty

What is your highest academic qualification?

Associate degree, Bachelor's degree, Master's degree, Doctorate, Others (Please

specify)

What is your age?

What is your gender identity?

Woman, Man, Transgender Woman / Trans Feminine, Transgender Man / Trans

Masculine, Non-Binary / Genderqueer / Gender Fluid, Two Spirit, Prefer not to

say, Prefer to self-describe: _____

What is your race/ethnicity?

American Indian/Native American, Asian, Black/African American, Caucasian,

Hispanic/Latinx, Native Hawaiian/Pacific Islander, Two or more races, Prefer not

to say, Other

Survey adapted for instruction of community college students from the Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) by Siwatu (2007).

APPENDIX F

SEMI-STRUCTURED INTERVIEW QUESTIONS

1. Describe in as much detail as possible what you enjoyed about the CRT-B book study.

2. How has the CRT-B book study affected your teaching and your students in the classroom?

    1. Did you see changes in their: (a) learning; (b) awareness of cultures other than their own; (c) ability to think critically about social issues and/or global issues?

3. How has CRT-B book study affected your ability to connect and/or empathize with your students more?

4. How has the CRT-B book study affected your confidence in approaching topics surrounding diversity, equity, inclusion or social justice in the classroom?

5. Is there any other information you would like to add in regards to the CRT-B book study or anything else related to this study?

6. What questions do you have of me?

APPENDIX G

STUDENT SURVEY

Identifier:

To protect your confidentiality, please create a unique identifier known only to you. To create this unique code, please record the first three letters of your mother's first name (or your primary caregiver if not your mother) and the last four digits of your phone number. Thus, for example, if your mother's name was Sarah and your phone number was (602) 543-6789, your code would be Sar6789. The unique identifier will allow us to check for any duplicates while we analyze the data while still keeping your identity anonymous.

My unique identifier is: _____ (e.g., Sar6789, see paragraph above)

Which instructor will you be answering the following questions about?
        (Dropdown box with all possible instructors will open and student will select their
        instructor)

On a scale from 1-5, how much do you agree with the following statements about the instructor that you indicated above?

1=Strongly disagree,
2=Slightly disagree,
3=NA or Neutral,
4=Slightly agree,
5=Strongly agree

1. I feel comfortable asking my instructor for help if I do not understand course-

    related material. (FS/C)

        Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

2. I feel that my instructor would not pass judgment on me if I told them about a

    problem I was having (e.g., a personal problem at home or work). (EFU)

        Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

3. I feel comfortable discussing my academic program or career plans with my

    instructor. (FS/C)

        Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

4. If I had a reason, I would feel comfortable seeking help from my instructor outside of class time (i.e., during office hours, etc.). (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

5. I feel that my instructor tries to relate to students on their level. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

6. I ask questions of my instructor if I do not understand something. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

7. I feel comfortable seeking help from my instructor before or after class. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

8. I feel comfortable socializing with my instructor outside of class. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

9. My instructor encourages students to come and see them if they need extra help. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

10. I feel comfortable sharing my opinions or ideas with my instructor. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

11. My instructor makes exceptions for students when they're in need. (EFU)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

12. I feel that my instructor would not pass judgment on me if I was having difficulty with their course. (EFU)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

13. I feel my instructor would show me how to do something that I didn't know how to do if I needed help. (EFU)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

14. I feel that my instructor is easily approachable. (EFU)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

15. I feel comfortable asking my instructor for advice about how to solve a problem.

    (FS/C)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

16. My instructor is interested in teaching students. (FS/C)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

17. I feel comfortable asking my instructor for help with a personal problem. (FS/C)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

18. I feel that my instructor listens to student needs. (EFU)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

19. I feel that my instructor would give me reasons why I should or should not do

    something if I asked. (EFU)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

20. My instructor cares about the quality of their teaching. (EFU)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

21. I feel that my instructor is concerned about students. (EFU)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

22. I feel that my instructor would take the time to talk to me if I needed help. (EFU)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

23. My instructor is interested in knowing what students think. (EFU)

Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

151

24. I feel that my instructor is flexible where there is reason to be. (EFU)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

25. I feel that my instructor has really listened to my concerns or problems when I talked about them. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

26. I feel that my instructor really tried to understand my problems if I talked about them. (EFU)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

27. I feel that my instructor has tried to answer any of my questions when I asked them. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

28. I feel that my instructor tried to help me in practical ways, like doing something for me, when I had a problem. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

29. I feel that my instructor would be sympathetic if I was upset. (EFU)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

30. I feel that my instructor would make an exception if I could not turn an assignment in on time because of a personal problem. (FS/C)

       Strongly disagree   1 ---- 2 ---- 3 ---- 4 ---- 5   Strongly agree

31. Please share about a time when you felt included in your instructor's classroom:

32. Please share about a time when your instructor made you feel like you belonged in their classroom:

33. Please share about a time when you didn't feel included or didn't feel a sense of

belonging in your instructor's classroom:

How many years have you been a student at EMCC?

What is your age?

Are you a first-generation college student? (e.g., you are the first person in your

immediate family to attend college)

What is your gender identity?

Woman, Man, Transgender Woman / Trans Feminine, Transgender Man / Trans

Masculine, Non-Binary / Genderqueer / Gender Fluid, Two Spirit, Prefer not to

say, Prefer to self-describe: _____

What is your race/ethnicity?

American Indian/Native American, Asian, Black/African American, Caucasian,

Hispanic/Latinx, Native Hawaiian/Pacific Islander, Two or more races, Prefer not

to say, Other

Survey adapted to ask questions about an individual faculty member from the Sense of
Belonging Survey by Hoffman et al. (2002)

APPENDIX H

LIST OF ALL CODES FROM THE EDUCATOR SURVEY AND INTERVIEWS

Educator in-vivo codes
1. Diversity
2. Neuroscience
3. Culture depth, individualistic vs. collectivist societies
4. Language matters
5. Behavior matters
6. Relating to the author
7. Minority/Oppressed
8. Convergence of many professional developments
9. Students as chameleons
10. Student stress/trauma and negative student experiences
11. Student growth and positive student experiences
12. Inclusion
13. CRTeaching is about more than race
14. All students benefit from CRTeaching
15. Relating to students
16. Praxis and reflections
17. Overcoming fear
18. Instructor stress
19. Instructor adaptiveness, modifying and changing
20. Realization
21. Empowering
22. Feelings of isolation

Educator a priori codes related to the CRTeaching, CRP, and CSP literature
1. Attention to the student as a person
2. Action-provoking and adaptive
3. Critical consciousness
4. Cultural competence
5. Cultural reciprocity/co-creating with students
6. Deficit to asset-based thinking
7. Empathy/cultural caring
8. Experiential learning
9. Funds of knowledge
10. Promotion of rigor
11. Real-world application
12. Representation matters
13. Responsive in multi-dimensional way
14. Selective vulnerability
15. Values application

APPENDIX I

TABLE OF STUDENT RACE/ETHNICITY, GENDER, AND FIRST-GENERATION

STATUS BY SEMESTER

Race/Ethnicity	Gender	First-generation college student?	Spring 2023 n = 291		Fall 2023 n = 289	
			Count	%	Count	%
American Indian, Asian, Native Hawaiian/ Pacific Islander, two or more races, Other, NA	Woman	Yes	13	4.5	10	3.5
		No/NA	26	8.9	17	5.9
	Non-Binary or Other	Yes	0	0.0	0	0.0
		No/NA	0	0.0	5	1.7
	Man	Yes	10	3.4	9	3.1
		No/NA	14	4.8	13	4.5
Black and/or African American	Woman	Yes	1	0.3	2	0.7
		No/NA	8	2.7	11	3.8
	Non-Binary or Other	Yes	0	0.0	0	0.0
		No/NA	0	0.0	1	0.3
	Man	Yes	3	1.0	2	0.7
		No/NA	1	0.3	4	1.4
Hispanic and/or Latina/o/e	Woman	Yes	59	20.3	63	21.8
		No/NA	39	13.4	35	12.1
	Non-Binary or Other	Yes	2	0.7	0	0.0
		No/NA	0	0.0	1	0.3
	Man	Yes	24	8.2	29	10.0
		No/NA	17	5.8	26	9.0
White, Caucasian, and/or European American	Woman	Yes	16	5.5	5	1.7
		No/NA	30	10.3	27	9.3
	Non-Binary or Other	Yes	0	0.0	1	0.3
		No/NA	4	1.4	6	2.1
	Man	Yes	4	1.4	5	1.7
		No/NA	20	6.9	17	5.9

Note. NA denotes that students did not answer or said "prefer not to say."

APPENDIX J

STUDENT CODES RELATED TO BELONGING, INCLUSION ORGANIZED INTO

FOUR MAJOR THEMES

Collaborative and Active
1. Collaborate, collaboration
2. Involve, involved
3. Active, interactive, act, interact, activity, activities
4. Whiteboarding, white boards, discussion boards
5. Work together
6. Check-in, check-in activity
7. Discussion
8. Potluck, donut, doughnut, treats
9. Play, entertain, entertaining
10. Introduce, introduction
11. Kahoot (included misspellings such as *cahoot*)
12. Meeting, meeting with me
13. Groups, group work, checking in with groups, group calls, group chats
14. Goes around, walks around
15. *Assignment
16. *Discord

Empathetic, understanding
17. Personal
18. Understand
19. Concern
20. Empathic, empath
21. Assistance, help
22. Perspective
23. Care, cared for, should be here
24. Acknowledge, acknowledged
25. Without judgment, no judgment, no one judges
26. Extension, turned in assignment later, later date, exception
27. Allow, allowed, assist, assisted
28. Aware, awareness
29. Reach, reach out
30. Accept
31. Open-minded, open conversations
32. Comfort, support
33. Encourage
34. Relate, related, relationship
35. Bond with classmates, teacher, professor
36. *Extra time
37. *Borrow

Responsive, gives feedback
38. Feedback, gives feedback
39. Quick, timely
40. Email, text, message

41. Meet, meet up, Google meet
42. Answer
43. Consistent, consistently, confident, confidence
44. Responds, responsive, reaches back out
45. Express
46. Conversation (included misspellings or shortened terms such as *convo*)
47. Talk
48. Submission
49. Asks opinions, opinion, input
50. Calls on me
51. *Comments

Warmth, Welcoming
52. Nice, kind, friend, friendly, open
53. Welcome, welcoming
54. Warm, positive, happy
55. Fun, funny
56. Break the ice, icebreaker
57. Laugh, joke
58. Congratulate
59. Excite
60. Hello, says hello, greet, greets
61. Knows names, know your name, mentions your name
62. Genuine, genuinely cares
63. *Sweet
64. *Safe environment
65. *Stories, storytelling
66. *Considerate

Codes added during Fall 2023 coding have an asterisk.