

**SUPPORTING TEACHERS' EQUITABLE PEDAGOGY PRACTICES: DEVELOPING
AN ONLINE PROFESSIONAL LEARNING COURSE**

by
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Abstract

The purpose of the study was to investigate professional learning factors that may support teachers in their equitable pedagogy efficacy. The second purpose of the study was to develop a better understanding of learning materials that might be used to construct an online professional learning program to support teacher equitable pedagogy efficacy. Using an exploratory case study method, the researcher designed an online professional learning course using three types of study participants from one higher education institution to provide feedback to the content, potential use of the course within participant's professional context, and overall perception of the course. The participants reviewed the course and provided feedback through individual interviews and a focus group. Additional data sources included a researcher's journal, electronic open-ended questionnaires, and a demographic checklist. The findings indicated that the professional learning course might be used as professional learning for teachers of varying experiences. Additional findings revealed factors such as collaboration, reflection, and school leadership could influence teacher efficacy around cultural relational pedagogy as an equitable pedagogy practice.

Keywords: career readiness, professional learning, teacher efficacy, cultural relational pedagogy

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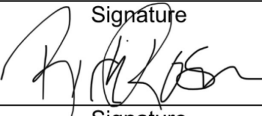
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Dedication

This dissertation is dedicated to my family. I am so grateful for a family that prays, encourages, and loves hard. I cannot thank you enough for your continued support.

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Executive Summary

Career readiness disparities for students of color are multi-faceted, comprised of socio-cultural factors as well as ingrained educational practices and policies (Farrington, 2014). To address such disparities and better prepare all students, an understanding of continuous improvement strategies is needed to create quality college and career readiness opportunities. Differences in college and career readiness skills during the K-12 experience impacts students of color the most; these are far beyond challenges presented by deficiencies in financial aid and affirmative action practices (Greene & Forster, 2003). A strong emphasis on reading that calls for analytical thinking, writing, and reading with the incorporation of problem-solving skills best prepares students for careers (National Center for Education Statistics, 2015).

Disproportionate post-secondary success rates are reflected in educational attainment rates among ethnic groups. In 2014, 52% of Asians had earned at least a bachelor's degree. Asians were highest among other racial/ethnic groups to pursue college degrees. Thirty-four percent of White adults, 20 percent of Black adults, 15 percent of Pacific Islander adults, and 14 percent of American Indian/Alaska Natives adults had earned a bachelor's degree (Musu-Gillette et al., 2017). Musu-Gillette et al. (2017) further revealed through their study at the United States Department of Education, that higher levels of educational attainment were related to higher annual wages for 25–34-year-olds. Ethnic groups including Blacks, Hispanics, Pacific Islanders, and Indian/Alaska Natives consistently had lower median earnings as opposed to Whites. Lower median earnings were linked to higher unemployment rates.

Career Readiness Disparities: A Problem of Practice

The infrastructure of poor-performing schools where students of color attend often lack appropriate career guidance and resources, leaving them to navigate postsecondary opportunities

largely on their own. Students of color in America face challenges in achieving post-secondary success within their career paths as compared to Whites, causing a continuous cycle of poverty (Holland & DeLuca, 2016). Infrastructure issues can cause students of color to navigate postsecondary opportunities with little to no knowledge (Holland & DeLuca, 2016). Learning experiences that spark career-related learning serve as critical opportunities for students of color (Jackson et al., 2011). Poverty-ridden communities with high-density ethnic populations in central Oklahoma City continually experience high victimization, violence, and delinquency rates exacerbated by jobs that yield incomes that do not meet the socioeconomic needs of the rising costs of living according to the 2016 Distressed Communities Report (Economic Innovation Group, 2016). Furthermore, improper and inequitable career preparation practices perpetuate disparities for students of color and hinder changes in their trajectory to create sustainable communities (Schott Foundation, 2018).

Persistent Poverty

Persistent poverty describes the duration of how long a child is poor over time (Ratcliffe & McKernan, 2012). The U.S. Census (2010) showed 24.1% of Blacks were in poverty in 2016, and 21.4% of Hispanics (any race), whereas 9.1% of Whites (non-Hispanic) were in poverty. Historically, students of color have disproportionately faced the effects of poverty. Cyclical poverty can be considered in terms of both opportunities to access high-quality education and to make use of that education if it is accessed. Critically, children who are poor, are more likely to stay poor according to Badger, Miller, Pearce and Quealy (2018). Even more alarming, Badger, et al. (2018) indicated Black boys are more likely to become poor in their households as adults. Viewing cyclical poverty among students of color placed a magnifier on decades of community toxicity that impacted educational advancement for students of color.

Inequitable Wages and Skills Mismatch

Inequitable wages can be seen due to skills mismatch which could affect ethnic populations in pursuing equitable wages leading to persistent poverty (Houston, 2005). Skills mismatch is defined as the gap between an individual's job skills and the demands of the job market. Blacks, American Indians/Alaska Natives, and Hispanics are grossly underrepresented in high demand occupations (Nettles, 2017). The disparities in post-secondary degree attainment for people of color were related to lower skills and ultimately lower paying jobs. Further, students of color pursuing college and other career preparation choices are often misguided and are less academically prepared to achieve their post-secondary endeavors that lead to higher paying jobs (Winograd & Shick-Tryon, 2009).

Inequitable Resources

Educational resource disparities are not a new issue for schools that house students of color. Historically, “disenfranchised, blacks had to make do with the starvation diet of school funds that white officials allocated to the segregated ‘colored’ schools” (Tyack & Cuban, 1995, p. 23). The trend of disparate resources is on a continuum, as revealed through the Fast Facts about Online Learning (2014) finding that in the US only 50% of high schools offered calculus and only 63% offered physics coursework. The same study revealed for schools serving larger numbers of students of color, there are disproportionately lower levels of resources and they have been shown to lead to low employment wages (Fast Facts about Online Learning, 2014). Just one quarter of high schools with the highest percentages of Blacks and Latinos offered Algebra II. One third did not offer chemistry. A lack of STEM (science, technology, engineering, and math) learning opportunities creates career disparities for students of color as they pursue college and careers (Worthen & Patrick, 2018).

Inequitable Instruction

Lack of expectations and attitudes speak to a teachers' perception of teaching students of color. Historically, students of color have faced inequitable instruction, leading to a deficit in interactions with faculty that help students successfully maneuver within the educational system (Herzig, 2006; McCoy, Luedke & Winkle-Wagner, 2017). Instead, the value of students of color has been depreciated (McCoy, et al., 2017). Deficit thinking theory mirrors the effects of teacher low expectations. Deficit thinking theory illuminates the thoughts of those who believe their deficiencies in students' ability to learn, parental interest, and the students' lifestyle (Walker, 2011). Further, deficit thinking theory includes the thoughts that students who are culturally different are of less value in the areas of competence, intelligence, capability, and motivation (McKenzie & Scheurich, 2004). The subjective thoughts of teachers could affect student outcomes by labeling students with low or even negative perceptions (Fish, 2017). The presence of deficit language may not be realized by teachers. Therefore, an examination of teacher deficit language is critical to acknowledging difficult relationships between teachers and students, which could contribute to low academic achievement for students of color (Molnar and Lindquist, 1989).

Racism and Poverty

Racism and poverty contribute to a lack of self-efficacy in pursuing careers (Lent et al., 2000). The toxicity of racism could lead to lower academic achievement and present barriers to achieving career paths (Fitzgerald & Betz, 1994; Perrone, Sedlacek, & Alexander, 2001; Lent et al., 2000). Further, low self-efficacy can be correlated to the negative perception of career barriers (Mejia-Smith & Gushue, 2017). Students who experienced racism, bias, and prejudice often feel excluded, invalidated and, unsupported by their instructors and peers (Ackerman-

Barger & Hummel, 2015). Ackerman-Barger & Hummel (2015) also posit that even high achieving students of color are not excluded from racism. Even high achieving students of color still face lower expectations due to racism and fewer opportunities to advance in careers as opposed to Whites.

Collecting Evidence through a Needs Assessment

To further understand the contributing factors of career readiness disparities among students of color, the researcher conducted a needs assessment. The researcher focused on the inequitable instruction factor to narrow the research focus. A needs assessment was conducted using pre-existing data from a K-12 school to understand teacher's culturally responsive efficacy. A nonexperimental quantitative causal-comparative research study was conducted using the Culturally Responsive Teaching Self-Efficacy Scale (Siwatu, 2007). Specifically, the study sought to assess the perceived efficacy of teachers and their use of culturally responsive teaching using instrument-based questions and statistical analysis (Creswell, 2014).

All teachers within the district were recruited for the study ($N=57$). All teachers were state certified and had been teaching one to forty-five years. The sample was predominately Black (75%). Twenty percent were Caucasian and 2.5% chose "other" as a race option. Forty six percent of respondents were employed with the school district zero to three years. Forty five percent of respondents indicated they had taught with the district over 11 years.

The findings of the needs assessment study indicated on average, teachers at the K-12 school were moderately to completely confident across domains which included curriculum and use of instruction, classroom management domain, student assessment domain. The findings also indicated teachers felt less efficacious in the cultural enrichment and competence domain and could point to teachers feeling less efficacious within the domain. This finding was consistent

with Siwatu's (2007) study that found both preservice and in-service teachers were more confident in areas such as collaborative work and communicating classroom policies, but less confident in more complicated tasks such as revising or adapting learning materials to meet the cultural needs of students. Alternatively, the lowest average score for the K-12 school was within the classroom management (m score) domain.

Completion of a needs assessment helped drive the direction of research in finding an improved professional development practice solution for career readiness facilitators whose target population is students of color. Improved practice allows educational leaders and practitioners to present research-based solutions to create, inspire and promote educational growth within classrooms, schools, and school districts (Lochmiller & Lester, 2017).

Developing an Online Professional Learning Course to Support Teacher's Equitable Pedagogy

The study followed an exploratory case study method to understand the factors that fostered a professional learning experience that increased teachers' self-efficacy around equitable teaching practices. According to Yin (2018), a case study design should be considered when the researcher is exploring the *how* or *why* of a phenomenon.

A case study research design was chosen to allow the researcher to examine and gain an understanding of the complex nuances of professional learning methods that might increase teacher's knowledge of equitable pedagogy and their perception of how their efficacy might be influenced. The case study used a conceptual framework (Figure 3) that integrated equitable pedagogy practices (e.g., Banks, 2015; Ladson-Billings, 2009; Wink, 2011; etc.), and adult learning theory (Knowles, 1968).

An online professional learning course was developed using components illuminated in the intervention literature review and the meta-analysis that may influence teacher efficacy in equitable pedagogical practices. The components discussed in the online course included reflection, social emotional relationships, collaboration, and connection to the community.

The study took place over three phases. Data were collected using a document review, individual interviews, online open-ended questionnaires, one focus group, and a researcher journal. Phase One of the study included a document review and course review with feedback with the content expert participant. Phase Two included course review and feedback with the Procurer and End-User participants. Phase Three included a research study process evaluation.

Findings

The overarching goal of the exploratory case study was to explore participant's perception of the online professional learning course through an audit trail process. Using an audit trail process, the researcher followed a systematic approach to collecting data (Creswell & Miller, 2000) by using the perceptions of external reviewers in Phases One and Two of the study to enhance trustworthiness and credibility. The results of the data helped the researcher identify factors that are needed in the professional learning course to best support teachers in their ability to use cultural relational pedagogy (CRP).

The content expert's recommendations included content and design recommendations. The content expert offered recommendations for making connections to CRP and the content to ensure course users understand why they should incorporate CRP into their professional context. Procurer participants posited that the CRP course provided baseline knowledge, applications of CRP, a safe space to think about feelings, and felt the course would best fit in teacher preparation programs. The Procurer participants also perceived the reflection/journaling, videos, glossary,

resources, and practice exercises as components of the course that were most helpful to learn about CRP. End-User participants perceived the course would work well within their professional contexts as monthly professional learning and collaboration time for teachers. End-Users believed the reflection, practice exercises, and strategy plans were the most important components to assist them in learning about CRP.

Other findings included recommendations for improvement including improving the computerized voice use in the online course and improving course navigation. End-User participants also believed the course would benefit new teachers, teachers with moderate experience as a refresher, teachers with long term experience as a refresher, teacher leaders, and teachers normally exempt from training (e.g., P.E or Music teachers). Finally, While the exploratory case study was not designed to determine if a change in teacher efficacy occurred, the researcher did seek to understand the professional learning nuances that might influence teacher efficacy around implementing cultural relational pedagogy, an equitable pedagogy practice. The intervention literature review revealed factors such as collaboration, reflection, and school leadership that practice transformational leadership practices contribute to teacher efficacy (Desimone, et al., 2002; Kim & Miler, 2015; Learning Forward, 2011; Warrick, 2011;). Feedback from both Procurer participants further illuminated the need for implementation with supportive leadership, collaboration, and reflection as factors found within the course that might influence efficacy for course users. Likewise, while both End-Users felt confident, they could implement CRP practices, they saw a need for supportive school leadership to enable them to feel fully efficacious as a long-term need.

Chapter 1: Needs Assessment Literature Review

Every Student Succeeds Act (ESSA) was created and passed as an antecedent to the No Child Left Behind Act (NCLB, 2002). The NCLB was written and passed to “ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging the state academic achievement standards and state academic assessments” (p. 15). The ESSA also has a significant approach to closing the achievement gap for traditionally underserved students and grants individual states flexibility and opportunity to write rigorous and comprehensive state developed plans (U.S. Department of Education, 2015). Specifically, states were tasked to include plans that were aimed at closing achievement gaps, increasing equity, improving instruction quality, and increasing student outcomes.

To achieve college and career readiness for all students, states were tasked through ESSA to create plans in Career Technical Education, workforce development, and higher education that would support students in successfully achieving careers. College and career readiness defined by the National Association of Colleges and Employers is demonstrated attainment of competencies that prepare students for college and work. The plans for competencies placed responsibility on secondary education institutions to set a path for students that will lead them to success after high school graduation (*Career Readiness & the Every Student Succeeds Act: Mapping Career Readiness in State ESSA Plans*, 2017) placing the onus of preparing students for careers at the high school level. However, some research evidence reflects a need for proactive preparation at the elementary school level as proper career development involves a lifelong process (Pulliam & Bartek, 2018).

As students are prepared at the school level the SAT serves as an indicator of students' success in preparing for college and careers as described by The College Board (2015). The College Board also noted that another indicator for success is completion of a four-year degree (The College Board, 2015). Together the SAT and PSAT provide measurements of the knowledge, skills, and understandings that are needed to be successful in college and career (The College Board, 2015). The SAT was restructured for the 2017 assessment and designed as an instrument that reflects students' best work by bridging their knowledge from classroom learning to skills for success in college and careers. Of the 1.7 million who took the SAT in 2017, 46% of students met or exceeded the new benchmarks. When further stratified by ethnicity, benchmark scores for both the math and English/reading/writing for Hispanic/Latino/a's were 31%, American Indian 27%, and Black was 20%. These scores reveal significant disparities in college and career readiness preparation for students of color.

Career readiness disparities for students of color are multi-faceted, comprising socio-cultural factors as well as ingrained educational practices and policies (Farrington, 2014). To address such disparities and better prepare all students, an understanding of continuous improvement strategies are needed to create quality college and career readiness opportunities. Differences in college and career readiness skills during the K-12 experience impacts students of color the most; these are far beyond challenges presented by deficiencies in financial aid and affirmative action practices (Greene & Forster, 2003). A strong emphasis on reading that calls for analytical thinking, writing, and reading with the incorporation of problem-solving skills best prepares students for careers (National Center for Education Statistics, 2015).

Disproportionate post-secondary success rates are reflected in educational attainment rates among ethnic groups. In 2014, 52% of Asians had earned at least a bachelor's degree.

Asians were highest among other racial/ethnic groups to pursue college degrees. Thirty-four percent of White adults, 20 percent of Black adults, 15 percent of Pacific Islander adults, and 14 percent of American Indian/Alaska Natives adults had earned a bachelor's degree (Musu-Gillette et al., 2017). Musu-Gillette et al. (2017) further revealed through their study at the United States Department of Education, that higher levels of educational attainment were related to higher annual wages for 25–34-year-olds. Ethnic groups including Blacks, Hispanics, Pacific Islanders, and Indian/Alaska Natives consistently had lower median earnings as opposed to Whites. Lower median earnings were linked to higher unemployment rates.

This literature review investigated factors that impeded career readiness for students of color in the U.S. The term students of color was used as a broad term to be inclusive of populations who are of ethnic descent people with ethnic descent (Adams, 2020). People of color people have historically faced inequitable educational practices causing education debt, which led to disproportionate achievement in standardized test scores, honors course enrollment, and college and professional program admittance (Ladson-Billings 2009). Likewise, the amount of education debt for students of color and its impact on their abilities to be prepared for college and careers was revealed statistically. According to The National Center for Education Statistics (2016), students of color were less likely to be college ready; for example, 61% of Black students who took the ACT in the 2015 high school graduating class met none of the four ACT college readiness benchmarks. First, the Problem of Practice (POP) is discussed to provide a broad overview of the problem investigated. Second, an explanation of the underlying causes of the problem are viewed using Bronfenbrenner's (1994) ecological systems theory (EST). A networked approach to EST (Neal & Neal, 2013) is also discussed. Additionally, social cognitive career theory (Lent, Brown, & Hackett, 2000) is established as a theoretical framework. Next,

the synthesis of literature is provided revealing relationships between the factors presented in the reviewed literature. Finally, a summary of the factors chosen for closer examination through the needs assessment is presented.

Problem of Practice

The infrastructure of poor performing schools where Black students attend often lacks appropriate career guidance and resources, leaving them to navigate postsecondary opportunities largely on their own. Black students in America face challenges in achieving post-secondary success within their career paths as compared to Whites, causing a continuous cycle of poverty (Holland & DeLuca, 2016). Infrastructure issues can cause students of color to navigate postsecondary opportunities with little to no knowledge (Holland & DeLuca, 2016). In central Oklahoma City, learning experiences that spark career-related learning serve as critical opportunities for students of color (Jackson et al., 2011). Poverty-ridden communities with high-density of people of color in central Oklahoma City continually experience high victimization, violence, and delinquency rates exacerbated by jobs that yield incomes that do not meet the socioeconomic needs of the rising costs of living according to the 2016 Distressed Communities Report (Economic Innovation Group, 2016). Furthermore, improper and inequitable career preparation practices perpetuate disparate students of color and hinder changes in their trajectory to create sustainable communities (Schott Foundation, 2018).

Theoretical Framework

Bronfenbrenner's ecological systems theory (EST) (1994) facilitated taking an aerial view of complex social phenomena by considering the multiple levels of interaction that influenced students of color through a socio-cultural, institutional, and relational lenses. Bronfenbrenner characterized the various levels as interactions that operated independently. An

adaptation by Neal and Neal (2013) added an emphasis on a more fluid connection between levels. In this study, Neal and Neal's adaption and presentation of a networked EST can be applied to consider how the different levels of factors interacted and contributed to each other and influenced disparities in career readiness training for students of color.

Traditionally, EST was described beginning with the levels that most strongly influenced a subject. To provide an explanation of issues that contribute to career readiness disparities for students of color, EST was discussed within this study, from a wider scope to a narrow lens. The chronosystem level reflects life changes a person experiences over the course of their lives (Husen & Postlethwaite, 1994). The macrosystem inhabits factors that ultimately influence a person such as "social, political, and cultural influences (Odom et al., 2004, p. 19). The exosystem level describes the connections between two or more environments that do not contain the developing person; however, the person is affected or influenced in their regular environment (Bronfenbrenner, 1994). The microsystem consists of the environment or setting in which a person normally exists or participates such as home or a classroom (Odom et al., 2004, p. 19).

The chronosystem level within EST revealed factors that practitioners had little influence over but had opportunities to advocate on behalf of students such as the impact of poverty-ridden neighborhoods on educational attainment for students of color (Hong, Cho, & Lee, 2010). Within the chronosystem, practitioners are afforded the opportunity to advocate on behalf of students, bringing to light how students are affected by social issues that caused unfavorable outcomes (Hong, Cho, & Lee, et al., 2010). In this study, the issue of cyclical poverty for students of color was explored as a chronosystem factor. The macrosystem level presented social patterns that presided over societal education views (Neal & Neal, 2013). Equitable earnings for

people of color were investigated, specifically exploring the availability of equitable wages and management positions for ethnic populations.

Within the exosystem level, the student plays a role and has a direct influence but does not influence the decisions within the educational setting (Neal & Neal, 2013). However, educational policies and decisions directly affected the experiences of the student (Neal & Neal, 2013). Equitable resources within classrooms that serve students of color were investigated through this study. The mesosystem level describes the interactions and events surrounding a student and illustrates how he/she is affected (Szapocznik & Coatsworth, 1999). Equitable career guidance and quality instruction for students of color as factors were explored within the mesosystem. The exosystem and mesosystem levels were presented together in this study as equitable resources and quality instruction were factors that directly influence the student in the classroom.

Finally, the microsystem level illustrated the lowest level of EST. The microsystem level presented an opportunity to view factors that directly influenced an individual student. Self-efficacy and persistence were visited as a systemic issue working against students of color socially, economically, and racially, as opposed to examining student grit, which focused on students tapping into their purpose and passion. Specifically, through EST, an examination of students of color beliefs regarding if they could achieve academically to pursue careers of interest was explored. The factors discussed in the needs assessment literature review are further illustrated in Figure 1.1.

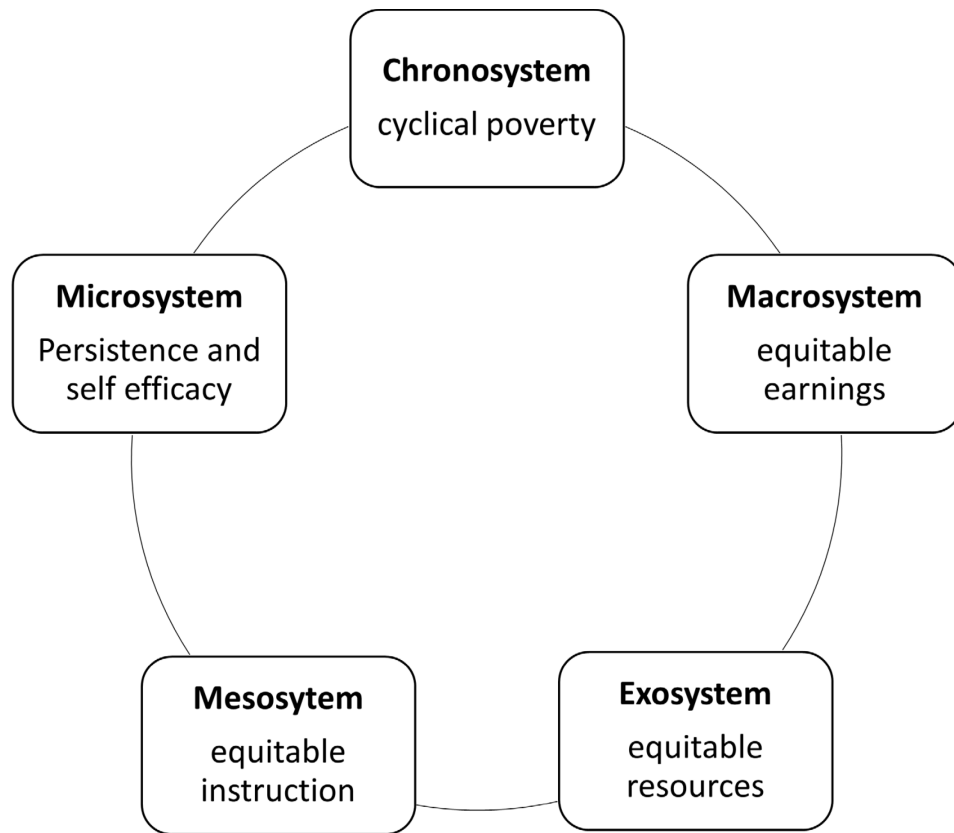


Figure 1.1 Networked Ecological Systems Theory (Neal & Neal, 2013) using Study Factors.

Conceptual Framework

The present study used social cognitive career theory (SCCT) (Lent et al., 2000) to explore the contextual framework. SCCT presented opportunities to explore career barriers from a social justice lens while also focusing on the needs and perceptions of students of color. An asset of SCCT was providing a specific means to investigate the career paths of people of color (Mejia-Smith & Gushue, 2017). As an adaptation of Bandura's (1986) social cognitive theory, SCCT adopted a directional guide to understand how cognitive processes and social interactions influenced learning and behavior. In SCCT, an individual's self-efficacy, defined as one's belief in their ability to succeed or accomplish a goal or task (Bandura, 1986) and

expectations were markedly influenced by their interaction with societal background. Further, their ethnic background, gender, culture, and socio-economic background provided a backdrop to how they engaged and interacted in society (Mejia-Smith & Gushue, 2017). The SCCT perspective indicated that the career goals of students of color were made based upon the self-efficacy belief of the individual. In this study, the SCCT lens was examined parallel to EST, where the levels of chronosystem (persistent poverty), macrosystem (equitable wages), exosystem (inequitable resources), mesosystem (inequitable instruction and microsystem (self-efficacy) were inspected as it relates to students of color self-efficacy and career readiness.

Chronosystem - Persistent Poverty

Persistent poverty describes the duration of how long a child is poor over time (Ratcliffe & McKernan, 2012). The U.S. Census (2010) showed 24.1% of Blacks were in poverty in 2016, and 21.4% of Hispanics (any race), whereas 9.1% of Whites (non-Hispanic) were in poverty. Historically, students of color have disproportionately faced the effects of poverty. Cyclical poverty can be considered in terms of both opportunities to access high quality education and to make use of that education if it is accessed. Critically, children who are poor, are more likely to stay poor according to Badger, Miller, Pearce & Quealy (2018). Even more alarming, some research indicates Black boys are more likely to become poor in their households as adults despite their upbringing (Badger, et al., 2018). Viewing cyclical poverty among students of color within the chronosystem placed a magnifier on decades of community toxicity that impacted educational advancement for students of color. At this level, the SCCT lens helped to understand external environmental factors causally related to socio-economic status that influenced career-related outcomes (Lent & Brown, 1996).

Residential Mobility

Poverty creates complicated difficulties, most profoundly residential mobility (Cox, 2016). In studying the effects of poverty and academic achievement, Cox (2016) studied 16 students from two inner city high schools in Northeast U.S. The high schools had high percentages of students of color, who qualified for free or reduced lunch, and were designated as economically disadvantaged. The findings indicated residential mobility caused by poverty was a major life stressor. Ultimately, residential mobility created complications in applying for financial aid, choosing colleges, transportation difficulties, and work obligations. Further, residential mobility created hardships that were found to be too profound for individuals to overcome and progress past the bounds of poverty. This work established that for the studied individuals, residential mobility and the pressures of living in disadvantaged neighborhoods had a strong negative impact on youth.

Exposure to disadvantaged neighborhoods throughout early childhood has also been found to disproportionately impact graduation rates for Blacks (Wodkte, Harding, & Elwert 2011). Using preexisting data from the panel Study of Income Dynamics and Neighborhood Change Database, Wodkte et al. (2011) found graduation rates were reduced by 40% for Whites who lived in disadvantaged neighborhoods, whereas Black students who lived in disadvantaged neighborhoods were found to experience a 90% reduction in graduation rate.

Macrosystem – Equitable Wages

Through networked EST, the macrosystem defined the social patterns and interactions between the individual, their culture within the classroom (Neal & Neal, 2013). Culture is “the customary beliefs, social forms, and materials traits of a racial, religious, or social group” according to the Merriam-Webster dictionary (2018). Social patterns within the macrosystem govern the creation and dissipation of social interactions of an individual (Neal & Neal, 2013).

Values and social interactions directly lead to career related outcomes through causality (Lent & Brown, 1996) and therefore, may have caused students of color to feel burdened in choosing careers that will yield incomes that will sustain them. Within the macrosystem level, equitable wages for ethnic populations were investigated in this study. Specifically, inequitable wages for people of color caused by skills mismatch and inequitable workplace mobility were examined.

Inequitable Wages and Skills Mismatch

Inequitable wages can occur due to skills mismatch which can affect people of color in pursuing equitable wages leading to persistent poverty (Houston, 2005). Skills mismatch is defined as the gap between an individual's job skills and the demands of the job market. Blacks, American Indians/Alaska Natives, and Hispanics are grossly underrepresented in high demand occupations (Nettles, 2017). The disparities in post-secondary degree attainment for people of color was related to lower skills and ultimately lower paying jobs. Further, students of color pursuing college and other career preparation choices were often misguided and less academically prepared to achieve their post-secondary endeavors that lead to higher paying jobs (Winograd & Shick-Tryon, 2009). Nettles (2017) further indicated a substantial amount of progress was needed if students of color were going to reach the U.S. goal to increase college degree attainment by 2020. Students of color were projected to reach just 60% of this goal as indicated by Nettles.

On the K-12 level, achievement disparities were seen between students of color and Whites. The National Center for Education Statistics (NCES, 2017), responsible for collecting and analyzing educational statistics, found persistent reading gaps between Whites and Blacks. The reading gap between Whites and Blacks was found to be larger in 2015 than in 1992 (NCES, 2017). The NCES (2017), further revealed STEM-related coursework achievement was 10

percent for Hispanic students and six percent for Black students, compared to 45 percent for Asians and 18 percent for Whites. Within these presented findings, poverty presented as a root cause of achievement gaps in students of color, leading to continued poverty. Children of color who were impoverished fared worse educationally than children who were not of ethnic descent (Mallett, 2017). Further, students of color who were poor were also more likely to experience homelessness, causing them to also be more likely to repeat a school grade or drop out of high school (National Low-Income Housing Coalition, 2013).

If current data patterns hold, it was predicted that by 2050, Blacks would make up to 14% of the workforce in the United States according to the U.S. Census, Income and Poverty Measures (2016). Growth in the workplace for Blacks was making a positive progression, but there were still substantial and concerning inequities in the types of positions held and the opportunities for advancement. Blacks and Latinos have been found to achieve upward career mobility at less than half the rate of Whites (Cappelli, 2008).

Racism is one factor that caused delays and even prevention of career development for Blacks (James, 2004). Black men encounter racism at higher rates than other ethnic populations. Black men must deal with racism from being both Black and male in the workplace, hindering their career development. Racism for Black men was exposed through a study of 14 Black men to investigate racism in mid-management and higher positions (Cornileus, 2013). Issues illuminated through the study were that Black men felt the need to display their skill sets at a lower level so as not to experience repercussions from surpassing their White counterparts. Further, decisions for promotion were perceived by Black men as made by a process of choosing promotions according to preferred race and not according to leadership and skill development. Finally, the respondents felt there was a lack of true interest in creating a diverse workforce.

Discrimination in the workplace shows up in the form of promotions based on race rather than merit (Wilson & Roscigno, 2017). Further, unfavorable performance evaluations of Blacks often followed them from job to job, creating difficulties in gaining managerial and higher-ranking professional positions (Cornileus, 2013). Supporting this finding, Wilson (2012) followed 773 African American, Latino, and White men, ages 20 to 55 years old, throughout their careers. Occupational movement was tracked to determine if respondents moved to a management position over six years. Results revealed 60% of Whites, 40% of Latinos, and 34% of Blacks experienced mobility into managerial level employment in the white-collar level. In the blue-collar level, 34% of whites, 19% of Latinos, and 13% of Blacks experienced upward managerial mobility (Wilson, 2012). This study further revealed disproportionality in career mobility for ethnic populations.

Exosystem - Inequitable Resources

The exosystem focuses on elements that played a role and had a direct influence but did not influence the decisions with the educational setting (Neal & Neal, 2013). Specifically, within this study, the exosystem included factors such as district wide policies, state education guidelines, and school policy that could hinder the educational growth of students of color because of inequitable and disparate funds in low performing schools. One topic discussed within this study is the indirect influence of budgetary decisions that removed availability of rigorous courses for students of color.

Educational resource disparities are not a new issue for schools that house students of color. Historically, “disenfranchised, blacks had to make do with the starvation diet of school funds that white officials allocated to the segregated ‘colored’ schools” (Tyack & Cuban, 1995, p. 23). The trend of disparate resources was on a continuum, as revealed through the Fast Facts

about Online Learning (2014) finding that in the US only 50% of high schools offered calculus and only 63% offered physics coursework. The same study revealed for schools serving larger numbers of students of color, there were disproportionately lower levels of resources and they have been shown to lead to low employment wages (Fast Facts about Online Learning, 2014). Just one quarter of high schools with the highest percentages of Blacks and Latinos offered Algebra II. One-third did not offer chemistry. A lack of STEM (science, technology, engineering, and math) learning opportunities creates career disparities for students of color as they pursue college and careers (Worthen & Patrick, 2018).

Mesosystem – Inequitable Instruction

The mesosystem described the interactions and events surrounding a student and illustrated how the person was affected (Neal & Neal, 2013). For example, parent and teacher meetings or phone call discussions might discuss a student's progress, but they did not include the student in the interactions. Inequitable instruction for students of color is examined within this study. This section discusses the literature research relevant to the needs assessment in examining teachers' cultural perceptions that directly impact students of color.

Low Expectations or Deficit Thinking

Lack of expectations and attitudes spoke to a teachers' perception of teaching students of color. Interactions with faculty that helped students successfully maneuver within the educational system have historically been disparate for students of color (Herzig, 2006; McCoy, Luedke & Winkle-Wagner, 2017). Instead, the value of students of color has been depreciated (McCoy, et al., 2017). In a qualitative study led by McCoy, et al. (2015), an assessment of how undergraduate students of color interactions with faculty affected social capital acquisition was investigated. Social capital acquisition in the case of this study was specifically defined as

graduate education and career aspirations for students of color. A total of 31 participants were in the study: 21 from a Predominantly White Institution (PWI) and 10 from a Historically Black College and University (HBCU). Black students who attended a PWI felt excluded as opposed to those who attended an HBCU. Black students who attended an HBCU reported feeling encouraged by staff. Black students who attended a PWI felt unsupported by staff and experienced a lack of career planning preparation and research opportunities.

Deficit thinking theory mirrors the effects of teacher low expectations. Deficit thinking theory illuminated the thoughts of those who believe their deficiencies in students' ability to learn, parental interest, and the students' lifestyle (Walker, 2011). Further, deficit thinking theory included the thoughts that students who were culturally different were of less value in the areas of competence, intelligence, capability, and motivation (McKenzie & Scheurich, 2004). The subjective thoughts of teachers could affect student outcomes by labeling students with low or even negative perceptions (Fish, 2017). The presence of deficit language may not be realized by teachers. Therefore, an examination of teacher deficit language was critical to acknowledging difficult relationships between teachers and students, which could contribute to low academic achievement for students of color (Molnar & Lindquist, 1989).

Microsystem – Self Efficacy

Self-efficacy was a strong predictor of an individual's behavior (Bandura, 1997). Bandura's social cognitive theory provided guidance to understanding how experiences related to the development of self-efficacy beliefs. Four sources of information formulate self-efficacy including mastery experience, vicarious experience, verbal persuasion, and psychological and emotional states (Bandura, 1997). The success or failure of students of color may be influenced by their belief in their own abilities (Bandura, 1997).

Racism and Poverty

Racism and classism further exacerbate conditions for poor, disadvantaged students of color, disabling them from pursuing higher education (Ward, 2006; Wolf, 2007). The effects of poverty and racism have had direct, adverse consequences on self-concept and esteem (Rosenberg & Pearlin, 1978; Twenge & Campbell, 2002). Racism can play a part in negative ethnic identity (Petta & Walker, 1992). Further, racism and poverty can shape the trajectory of students of color students as poverty can be associated with self-worth, causing students to identify themselves as failures (Weinder, Osborne & Rudolph, 2011). As such, students who deal with poverty may lack self-efficacy. Self-efficacy, related to careers and college goals, refers to an individual's belief they can achieve ambitions in educational and occupational capacity and persist in the execution of those behaviors (Betz & Hackett, 1997.)

Racism and poverty contribute to a lack of self-efficacy in pursuing careers (Lent et al., 2000). The toxicity of racism could lead to lower academic achievement and present barriers to achieving career paths (Fitzgerald & Betz, 1994; Perrone, Sedlacek, & Alexander, 2001; Lent et al., 2000). Further, low self-efficacy correlated to negative perception of career barriers (Mejia-Smith & Gushue, 2017).

Using a quantitative approach, Bounds (2017) investigated self-efficacy and educational and career development. Specifically, he studied how educational and career development was impacted by self-efficacy, ethnic identity, and academic self-concepts among Blacks. Using Social Cognitive Career Theory (SCCT) (Lent, et al., 2000) as its foundational research, the sample included 104 urban African American high school students, grades nine through twelve. The highest GPA among the sample was 3.24 and the lowest was 2.5. For those who indicated their annual family income, the highest was \$19,000. Over 50% of subjects were from single

parent households. All students were participants in an Upward Bound program in Chicago. Using the Career Decision Self-Efficacy (CDSE) Scale, Bounds (2017) assessed if inner city students with high CDSE will demonstrate a high ethnic identity score and high academic self-concept. Results confirmed connections between career decision self-efficacy and academic achievement for students of color. Further, this result highlighted the strong implications for educational institutions if they provided career preparation programming that catered to student academic achievement.

Students who experienced racism, bias and prejudice often felt excluded, invalidated and, unsupported by their instructors and peers (Ackerman-Barger & Hummel, 2015). Ackerman-Barger & Hummel (2015) also posited that even high achieving students of color were not excluded from racism. Even high achieving students of color still faced lower expectations due to racism and fewer opportunities to advance in careers as opposed to Whites.

Academic Persistence

Persistence was defined as a continued effort in a task or endeavor until its completion (Lent, 2005). Self-efficacy was one of the strongest forecasters of persistence (Mau, 2003). Students who persisted fare better academically (Mau & Mau, 2006). Using a longitudinal quantitative study, Mau and Mau (2006) investigated academic persistence in 10th grade students from low and high socioeconomic status backgrounds. Students were compared using self-concept, expectations of parents, socio economic status, and academic achievement. Comparisons were made between those who persisted and those who did not. Students who persisted fared better and were able to meet academic goals. Overall, students of color were found to persist less than White students. Students who attended urban schools were more likely to persist than those who attended rural schools. Finally, students enrolled in vocational training

programs were least likely to persist. The study results illuminated differences in persistence, revealing more disparities between students of color and White students.

Summary and Future Considerations

The purpose of the literature review was to gather research to examine factors related to career readiness disparities among students of color. Using Neal and Neal's (2013) nested network theory, factors within the chronosystem, macrosystem, exosystem, mesosystem, and microsystem were studied. Persistent poverty served as an overarching theme and platform for toxic conditions that caused social, economic, and educational disparities for students of color as they related to education and career readiness equity for students of color. Other factors explored were inequitable wages, inequitable resources, inequitable instruction, and self-efficacy.

Understanding teacher efficacy in emphasizing high academic expectations, ethical care, culturally inclusive instructional practices, and connection to parents and community for students of color provided a pivotal understanding of how to improve educational experiences within the professional context. A considerable number of factors permeated the lives of students of color (Farrington, 2014) including inequities in career readiness preparation (Herzig, 2006; McCoy, Luedke & Winkle-Wagner, 2017). However, quality instruction as a factor, specifically CRT efficacy provided the basis for a needs assessment to move forward in research.

Chapter 2: Needs Assessment Study

As reviewed in the previous chapter, the infrastructure of schools where some students of color attend often lack appropriate college and career guidance and resources leaving them to navigate postsecondary opportunities largely on their own. Preparing teachers who are competent and confident in their abilities to practice CRT, with a trajectory of increased students who are culturally and linguistically diverse, is critical to providing high quality instruction (Attrill, Lincoln, & McAlister, 2017). Additionally, CRT is necessary for preparing students with diverse backgrounds for their post-secondary endeavors (Winograd & Shick – Tryon, 2009). As defined by Gloria-Ladson Billings (1994), CRT, illuminates the need for educators to use culturally inclusive content in all areas of learning and have a positive mindset of students and their families.

Statement of the Problem

Teacher quality has come under great scrutiny in the recent past with questions regarding the quality of professional learning (Jensen et al., 2015). All children learn within a complex network that influences their learning including families, schools, and communities (Bronfenbrenner, 1994). Students of color who live in poverty face challenges that affect their educational outcomes. Due to systemic inequities, some students of color live and learn in toxic, poverty ridden communities where poor housing, pollution, inequitable health care, and violence are a factor (Sander & Galindo, 2014). Therefore, teachers who facilitate college and career readiness preparation courses should be aware of systemic and personal challenges students of color face. With high quality education expectations, comes the need for high quality teacher instruction (Jensen et al., 2015). Teachers must be prepared to teach students high level thinking skills in preparing them to be college or career ready; moreover, they must be prepared to

provide instruction that enables all students to succeed (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). Critically, students who attend low-income, diverse schools that are low performing may be less likely to receive acknowledgment of their potential abilities to develop academically in pursuit of careers (Jackson et al., 2011).

A needs assessment was conducted using pre-existing data from a K-12 school. The researcher attempted to collect data from an elementary after school program; however there no participants agreed to the study. The pre-existing data from the K-12 school were collected using a quantitative survey, the Culturally Responsive Teaching (CRT) Self-Efficacy Scale (Siwatu, 2007). The K-12 schoolteachers were examined to assess their CRT efficacy.

Within a networked EST theoretical framework (Neal & Neal, 2013), the following constructs were identified in Chapter One as factors that may impede students of color from becoming college and career ready: cyclical poverty (chronosystem), equitable wages (macrosystem), equitable career preparation (exosystem), equitable instruction for students of color (mesosystem), and self-efficacy in students of color (microsystem). For this needs assessment, equitable instruction within the mesosystemic level was investigated. College and career readiness instructional inequities result in less support to develop goals and self-awareness of personal interests and results in a lack of informative college and training resources for students of color (Romer, 2012). The operational definition for equitable instruction specifically investigated teacher perception of students of color and CRT efficacy.

Contextual Framework for the Needs Assessment Study

The National Center for Education Statistics (2015) indicates, students of color face inequities in education leaving them to face the challenges of college and career goals unprepared and set for a difficult road towards successful careers. The lack of career readiness

skills during the K-12 experience impacts students of color the most; far beyond challenges presented by deficiencies in financial aid and affirmative action practices (Greene & Forster, 2003). Given the disparities in career readiness preparation for students of color and a need for CRT practices as supported by the literature, a needs assessment study investigated CRT efficacy.

Rationale

Empirical research provided a framework for understanding some of the complex challenges students of color face in preparing for future college and career paths. One factor illuminated in the literature review research was inequitable instruction. Completion of a needs assessment helped drive the direction of research in finding an improved professional development practice solution for career readiness facilitators whose target population is students of color. Improved practice allows educational leaders and practitioners to present research-based solutions to create, inspire and promote educational growth within classrooms, schools, and school districts (Lochmiller & Lester, 2017).

The Problem within the Professional Context

According to Schott Foundation for Public Education (2010), students of color were less likely to be enrolled in well sourced, high performing schools in Oklahoma. Specifically, Blacks were 58% more likely to attend poorly resourced, low performing schools; 48% for Hispanics. The Lumina Foundation (2018) revealed Oklahoma has substantial deficiencies in skill level with a 42% post-secondary education attainment rate for all Oklahomans. Results indicated that by 2025, employers will need more skilled labor positions. According to the Lumina Foundation, students of color in Oklahoma fall significantly below the national average for other

students of color in the nation when viewing education attainment with at least an associate degree for ages 25 – 64.

Necessity of the Needs Assessment Research

The research is necessary to ascertain teacher's efficacy in equitable instruction as equitable instruction can play a critical role in successfully preparing students of color for college and careers (Gay, 2002; Jensen et al., 2015). More specifically, the needs assessment study investigated culturally responsive instructional efficacy among teachers who facilitated classroom instruction with students of color. Culturally responsive teaching (CRT) uses student cultural knowledge and the experiences students bring to the classroom to make learning more relevant and effective for the student (Gay, 2002). Disproportionalities in education, including inequitable instruction, have been found to impact college and career readiness for students of color as evidenced by lower wages (International Association for K-12 Online Learning, 2014).

Context of the Study

The district contained a population of 1,074 students that are 90% African American. According to the Oklahoma Department of Education (2017), 92% of the students participated in college and career readiness curriculum. Ninety-seven percent of the students were eligible for free lunch in both the elementary and middle/high schools.

Purpose of the Study

This study was originally planned as a sequential explanatory, mixed method strategy (Creswell & Plano Clark, 2007) to allow for a deeper explanation of the quantitative findings to best investigate teacher's CRT efficacy. The researcher planned to follow the quantitative study by a qualitative study to gain a deeper understanding of teachers' perceptions (Creswell & Plano-Clark, 2007) of their CRT efficacy. However, no participants were willing to participate in the

qualitative portion of the study. Therefore, a nonexperimental quantitative causal-comparative research study was conducted using the Culturally Responsive Teaching Self-Efficacy Scale (Siwatu, 2007). Quantitative studies that are non-experimental enable the ability to compare and describe the relationships between two variables (Creswell, 2014). For this study, the two variables that were compared were the length of teaching experience. The two variables for length of teaching experience were three or less years of teaching experience and four or more years of teaching experience. The Culturally Responsive Teaching Self-Efficacy Scale can be found in Appendix A.

Need Assessment Research Questions

A non-experimental quantitative study allows for a researcher to examine relationships between the study variables., assists in reducing researcher bias, and its results can be generalizable (Creswell, 2014). The needs assessment sought to find the interconnections among empirically led factors contributing to the instructional strategies of teachers by assessing teachers' perception of their CRT efficacy. The needs assessment research was guided by the following research questions:

Quantitative Research Questions:

1. What are teachers' CRT efficacy in the curriculum and use of instruction domain?
2. What are teachers' CRT efficacy in the classroom management domain?
3. What are teachers' CRT efficacy in the student assessment domain?

What are teachers' CRT teaching efficacy in the cultural enrichment and competence domain?

Needs Assessment Methods

The overall purpose of the study was to determine the level of CRT efficacy among teachers at the K-12 school. The study was a non-experimental correlational design (Creswell, 2014) in which the researcher viewed the Culturally Responsive Teachers Self Efficacy survey scores to determine if there was a correlation between teachers that had more than four years of teaching and those that had three or less years of teaching experience.

Research Design

The research design for this study included use of a survey to ascertain the attitudes of the population sample through numeric data analysis (Creswell, 2014). Specifically, the study sought to assess the perceived efficacy of teachers and their use of CRT using instrument-based questions and statistical analysis (Creswell, 2014). The post-positivist approach offers a framework that supports the use of the CRT survey to identify variables to the study related to the correlation of teacher's CRT efficacy and amount of teaching experience. A post-positivist approach using a quantitative study supports a researcher's choice to use an instrument to ascertain the attitudes and opinions of the population being studied (Creswell, 2014).

Population and Sample. All teachers within the district were recruited for the study ($N = 57$). There were 40 teachers that agreed to participate ($N = 40$). All teachers were state certified and had been teaching one to forty-five years. All teachers were state certified and had a bachelor's degree, which was required to teach at the school.

The sample was predominately Black (75%). Twenty percent were Caucasian and 2.5% chose "other" as a race option. Forty-six percent of respondents were employed with the school district zero to three years. Forty-five percent of respondents indicated they had taught with the

district over 11 years. Almost 80% of respondents had a degree in American Literature or English.

Participant Recruitment and Consent. Preexisting data were used for the needs assessment from the K12 school. Recruitment was performed by the superintendent of the school district. The researcher attempted to recruit teachers to perform a needs assessment; however, there were no respondents. Therefore, pre-existing data was used to conduct the needs assessment with permission from the superintendent. Respondents were recruited directly through the superintendent. No respondents were used outside of the selected school site. No payments or incentives were paid to respondents. Participants were previously recruited directly by the district's superintendent with an email invitation. The needs assessment survey did not include any minors and was therefore covered under the Johns Hopkins (JH) approved Homewood Institutional Review Board Informed Consent Form prior to completing the instrument. The JH approved consent form also outlines to the respondent that there is an assurance of anonymity and confidentiality.

Heterogeneous purposive sampling was used to recruit study participants. Purposive sampling uses and specifies a clearly defined, limited group (Trochim & Donnelly, 2007). Therefore, purposive sampling was appropriate for this needs assessment as the population only included teachers who instruct career readiness courses in the elementary after school program and the Pk-12 school where middle and high school teachers taught career readiness.

The researcher also attempted to recruit participants for the qualitative portion of the study. Participants received an invitation to participate in the qualitative interview via email. The initial email included an explanation of the study and allowed participants the option to

consent. Interested respondents would have received an email requesting a time to conduct the interview. None of the respondents agreed to an interview.

Instrumentation

This section describes the instrumentation used to gather quantitative data for the needs assessment. The Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) (Siwatu, 2006; Appendix B) was used to measure the constructs.

Culturally Responsive Teaching Self-Efficacy Scale. The CRTSE scale was constructed by Siwatu (2007). The instrument measures teacher efficacy in CRT. The CRTSE instrument consists of 41 questions with a Likert-type scale, 0-10 with 0 being the lowest confidence and 10 being the highest indicating complete confidence. Careful examination of each question through empirical research findings provided the content reliability and validity of the scale (Siwatu, 2006). Construct validity was obtained using two existing teacher self-efficacy measures, giving the scale credibility that it measures self-efficacy beliefs. Using the Culturally Responsive Classroom Management Self-Efficacy (CRCMSE) Scale and the Teacher Sense of Efficacy (TSE) Scale. Using Pearson product-moment correlation coefficients on the scores for all three self-efficacy measures revealed a positive correlation between the scales; yielding evidence of construct validity for the CRTSE scale.

The CRTSE (Siwatu, 2007) uses multiple fields of study of culturally responsive practices. Further, the works of Bandura's (1977) guidelines on self-efficacy are used to support the scale in research (Siwatu, 2007). Cronbach's Alpha was used to determine reliability and yielded a .96 result. Reliability of each domain with the instrument ranged from .781 to .880. The instrument's validity reflects it is useful for investigating multicultural teaching practices (Rhodes, 2016). The use of the scale in multiple published studies and reliability scores

provided by Siwatu (2007) suggested the survey is reliable. The CRTSE Scale includes four domains. The domains included curriculum and use of instruction, classroom management, student assessment, and cultural enrichment and competence (Siwatu, 2007) as indicated in Table 2.1.

The m score is indicative of classroom management, c score is curriculum and use of instruction, sts score is student assessment, and cenrich is cultural enrichment and competence. The preexisting data collected at the K-12 school used a scale of 0 -5 to collect participant responses, where 0 is no confidence 1-2 are low confidence, and 3-4 is moderate confidence, and 5 is complete confidence. The descriptive statistics are presented in Table 2.4.

Table 2.1 *CRTSE Scale Domains*

Domain	Questions
Curriculum and Use of Instruction	1,7,11,14,23,30,36,40
Classroom Management	9,12,19,26,34,38,39
Student Assessment	2,3,6,16,21,24,31,32,37
Cultural Enrichment and Competence	4,5,8,10,13,15,17,18,27-29,33,35,41

A sample item from the scale is “I am able to adapt instruction to meet the needs of my students (Siwatu, 2007)”. The CRTSE survey includes four areas developed to measure competencies including: “connect classroom activities to students’ cultural and home experiences, modify instruction to maximize student learning, design culturally relevant curricula and instructional activities, and design instruction that is developmentally appropriate and meets students’ affective, cognitive, and educational needs” (Siwatu, 2011, p. 33).

Needs Assessment Procedure

This section reviews the data collection and analysis process used in the needs assessment to address the research questions. Preexisting data were used to understand the thoughts and opinions of the targeted population.

Data Collection

Data from the K-12 school was previously collected using the CRTSE (Siwatu, 2011) with 40 teachers in 2018. Preexisting data (Robinson-Woods, 2018) were collected by the superintendent of the PK-12 school site. The preexisting data were collected in March 2018 by the superintendent and were previously analyzed using SPSS. Respondent information was previously deidentified by the school administrator. There was no risk of the subjects' information being unprotected as the names of participants were not disclosed in the study.

As the student investigator, the research plan was to collect the data for both quantitative and qualitative data. The qualitative data collection plan was to interview teachers using recorded sessions via Zoom to allow analysis of inductive coding processes (Miles, Huberman, & Saldana, 2014), then tally and analyze all data (Creswell & Plano Clark, 2011). However, no qualitative data were collected as no participants agreed to an interview.

Data Analysis. Analysis was conducted using Statistical Package for Social Sciences (SPSS) by the superintendent. Survey responses were input into SPSS manually. Descriptive statistics were run to gain the mean aggregate score for each domain (Gorman, 1995).

To analyze the correlations of the independent variables (i.e years of teaching experience) on teachers' culturally responsive efficacy, a multiple regression analysis was conducted (Thompson, 2002) using SPSS (Table 2.3). The multiple regression analysis was calculated to understand the statistical differences among teachers (Johnson & Onwuegbuzie, 2004) who had less than three years of experience and teachers who had more than three years of experience.

The mean of each domain was calculated to gain the self-efficacy index (SE-Index). The self-efficacy index was calculated using the total score of responses within each domain and divided by the number of questions (Siwatu, 2017).

Needs Assessment Findings

In this section, the findings of the 40 participants who completed the survey at the K-12 school are discussed. First, the difference in years of teaching experience using multiple regression is discussed. Then the findings are presented by each research question and construct. Participant responses were yielded using descriptive statistics for each construct. Each construct as a measure is discussed in this section. The constructs are curriculum and use of instruction (NARQ1), classroom management (NARQ2), student assessment (NARQ3), and cultural enrichment and competence (NARQ4).

Difference in Years of Teaching Experience

The descriptive statistics for the K-12 school reveals the statistics for all four domains (Table 2.2). The descriptive statistics revealed there was a higher standard deviation for the cultural enrichment and competence domain (c score, $STD = 8.49$); whereas the standard deviation for classroom management (m score), curriculum and use of instruction (c score), and student assessment (sts score) were 4.24, 5.15, and 5.36, respectively. A low standard deviation indicated most of the numbers were close to the average or mean; whereas a high standard deviation indicated numbers were more spread out from the average or mean (Wagner, 2017).

To explore if there were any differences in CRT efficacy as correlated to years of teaching experience, a multiple regression analysis was calculated (Table 2.3). The years of teaching experience were separated into two groups using teachers with three years or less experience (group one) and those with four or more years of teaching experience (group two). The overall total score increased by 9.239 ($SD = 3.841$) for one unit increase in years of teaching. Years of teaching experience was a predictor overall for teacher CRT efficacy.

Table 2.2*K-12 Site Descriptive Statistics*

	n	Minimum	Maximum	<i>M</i>	<i>SD</i>
M Score	40	2.0	35.0	27.9	4.2414
C Score	40	21.0	40.0	31.4	5.1580
STS Score	40	23.0	44.0	35.4	5.3675
Cenrich Score	40	29.0	64.0	47.8	8.4909
Total	40	99.0	183.0	142.5	22.164

Table 2.3*K-12 Site Multiple Regression, Differences in Years of Teaching Experience*

Variable	Self-Reported Culturally Responsive Teacher Efficacy				
	Unstandardized Coefficients <i>B</i>	<i>SE</i>	Standardized Coefficients <i>B</i>	<i>t</i>	<i>p</i>
Constant	111.339	11.709		9.509	.000
Yrs. teach 0-3	9.225	3.776	.372	2.443	.020
Constant	123.044	8.878		13.860	.000
Yrs. teach 4 +	9.239	3.841	.372	2.405	.021

NARQ1: Curriculum and Use of Instruction

The research question for curriculum and use of instruction asked: What are teachers' CRT efficacy in the curriculum and use of instruction domain? The average of the total amount of responses for curriculum and use of instruction efficacy domain was 27.9 ($SD = 4.2$). The mean for the curriculum and instruction domain was then calculated using the total responses and the number of questions ($N = 8$) to understand the efficacy of teachers on the 1 to 5 scale. The mean for the curriculum and use of instruction domain was 3.98, indicating on average teachers were moderate to completely confident at the K-12 school.

NARQ2: Classroom Management

The instrument evaluated teacher's efficacy of using the measure of classroom management. The research question for classroom management asked: What are teachers' CRT efficacy in the classroom management domain? The average of responses for classroom management efficacy was 31.4 ($SD = 5.15$). The mean for the domain was calculated using the total score mean for all responses and the number of questions ($N = 7$) to understand the efficacy of teachers on the 1 to 5 scale where 1 is no efficacy, 3 is moderate confidence, and 5 is complete confidence. The mean for the classroom management domain was 4.0, indicating teachers on average were moderate to completely confident at the K-12 school.

NARQ3: Student Assessment

The instrument evaluated teacher's efficacy of using the measure of student assessment. The research question for student assessment asked: What are teachers' CRT efficacy in the student assessment domain? The average of responses for student assessment efficacy was 35.4 ($SD = 5.36$). The mean for the domain was calculated using the total score mean for all responses and the number of questions ($N = 9$) to understand the efficacy of teachers on the 1 to 5 scale where 1 is no efficacy, 3 is moderate confidence, and 5 is complete confidence. The mean for the student assessment was 3.9, indicating teachers on average were moderately confident at the K-12 school.

NARQ4: Cultural Enrichment and Competence

The instrument evaluated teacher's efficacy of using the measure of cultural enrichment and competence. The research question for cultural enrichment and competence asked: What are teachers' self-efficacy CRT efficacy in the cultural enrichment and competence domain? The average of responses for cultural enrichment and competence was 47.82 ($SD=8.49$). The mean for the domain was calculated using the total score mean for all responses and the number

of questions ($N = 7$) to understand the efficacy of teachers on the 1 to 5 scale where 1 is no efficacy, 3 is moderate confidence, and 5 is complete confidence. The mean for the cultural enrichment and competence domain was 3.7, indicating on average teachers were moderately confident at the K-12 school.

Needs Assessment Discussion

Preexisting data from the Pk-12 school site was previously analyzed using Statistical Package for the Social Sciences (SPSS). Analysis in SPSS provided general descriptive statistics. The CRST scale was used to determine the efficacy of career readiness preparation teachers and their culturally responsive pedagogy efficacy. Additional data were gathered from teachers including gender, race, alternative or traditional certification, first career determination, years worked in the school district, number of years teaching, and level of education.

Using multiple regression analysis, the data indicated strong evidence connected years teaching in the district as a predictor of positive culturally responsive pedagogy efficacy. As indicated by the overall total efficacy score increases by 9.239 ($SD = 3.841$), for one unit increase in years teaching, there was also an increase in perceived efficacy. The literature supported by previous studies indicated that as years increase, the estimated mean of CRT scores increased (Cruz, Manchanda, Firestone, & Rodl, 2020). These findings align with Siwatu (2007) who found that teachers who had less teaching time overall and less teaching time in their districts had less efficacy in culturally responsive pedagogy.

The findings of the needs assessment study indicated on average, teachers at the K-12 school were moderate to completely confident across domains which included curriculum and use of instruction, classroom management domain, student assessment domain, and cultural and enrichment competence. As such, the larger standard of deviation score in the cultural

enrichment and competence domain could point to teachers feeling less efficacious within the domain. This finding is consistent with Siwatu's (2006) study that found both preservice and in-service teachers were more confident in areas such as collaborative work and communicating classroom policies, but less confident in more complicated tasks such as revising or adapting learning materials to meet the cultural needs of students.

Alternatively, the lowest average score for the K-12 school was within the classroom management (m score) domain. According to Siwatu's (2006) research discussion, the classroom management construct includes the perceived abilities of an individual inhabiting the ability to make decisions that create a learning setting that provides a supportive environment for academic and social goals, collaboration with families, and appropriately addressing behavioral problems. Siwatu (2006) purports that teachers with lower classroom management efficacy may in turn be less successful in maintaining a positive learning environment by dealing with behavioral issues with anger and a lack of affection.

Qualitative data collection such as through interviews or a focus group might have further elucidated the perceptions of teachers and their efficacy at the K-12 school. As asserted by Siwatu (2006), qualitative interviews are an integral source of data when assessing teacher efficacy to gain the perspectives of participants. The lack of qualitative data reveals a weakness of the needs assessment study.

Needs Assessment Conclusion

The preexisting data at the K-12 school indicated teachers who have been teaching at the school district less than three years perceived themselves as less efficacious than teachers who had been teaching more than three years. As indicated by Siwatu (2006), when the efficacy of teachers is explored quantitatively, it must also be followed by qualitative exploration.

Interviews were not conducted with the pre-existing data set at the K-12 school revealing a weakness of the needs assessment study. However, given the quantitative findings indicating that some teachers felt less efficacious in CRT, indicates a need to further explore how teachers can best be supported. In developing or maintaining their CRT efficacy. The following chapter explores professional learning strategies that may support teachers in developing their equitable pedagogical practices such as CRT.

Chapter 3: Intervention Literature Review

Educational systems that have created learning environments that lack creativity, have failed to increase the cognitive processes, and have not instilled learning that allows for longer term memory for retrieval of information. Ultimately, the lack of creativity and innovation often could rob students of color of their abilities to apply knowledge and employ critical thinking skills (Hammond, 2014). The ability to apply knowledge and think critically are important learning outcomes for companies in seeking new employee candidates (Mitchell & Allen, 2014). Critically, it is students of color who most often face educational challenges due to inequitable learning environments, causing them to face challenges in their post-secondary career pursuits (Holland & DeLuca, 2016). The challenges students face in preparing for post-secondary endeavors has been attributed to poverty, violent neighborhoods, or familial culture within a student's ecosystem (Hammond, 2014). However, the most accurate focal lens should be placed on insufficient opportunities presented in the classroom (Hammond, 2014) to reduce the effects of systemic barriers that have historically produced inequitable educational opportunities leading to low educational outcomes for marginalized students (Ladson-Billings, 1994).

Preparing students for careers is one way that some educational organizations are working to close the career readiness gap for students of color caused by educational inequities (Broady, 2019). The term career readiness, within this research, encompassed college and vocational training as important elements that prepared youth and young adults for future careers (National Association of Colleges and Employers, 2018). Instruction that provides a learning environment where students are actively engaged and socially, emotionally, and cognitively supported, closed the gap in achievement and leads students to be independent learners (Hammond, 2014). As explained by Hammond (2014), creating a culturally responsive learning

environment that connects student and teacher relationships is one way that can close the achievement gap for students of color. According to Gay, 2000 and Hammond, 2014, CRT uses cultural knowledge, student experiences, and classroom learning practices that foster awareness, learning partnerships, and community building to make instruction more effective for students.

Implementing professional learning that supports teachers in implementing culturally responsive pedagogy might provide a means to close the achievement and career readiness gap for students of color (Hammond, 2014). In this intervention literature review, key points from the study's needs assessment were briefly reviewed. Next, a theoretical framework was discussed. As a foreword to the literature review discussion, an outline of effective professional development practices was discussed using Learning Forward (2011) as a guide. Then, a literature review discussing transformational leadership, coaching, and professional learning communities, as they relate to teacher efficacy was discussed. The literature review concluded with a meta-analysis exploring professional learning that influenced teacher efficacy around equitable pedagogy practices. Finally, a summary was discussed, leading into the intervention plan.

Needs Assessment Findings

The literature review revealed factors that caused students of color to be less prepared for careers than their White counterparts. One factor illuminated in the research was a need for students to experience teacher and student interactions that fostered an appreciation for students' culture, triggering success in their academic goals (Darling-Hammond, Wei, Abdree, Richardson, & Orphanos, 2009) through use of culturally responsive teaching. A needs assessment was conducted using preexisting quantitative data from a K-12 school. The sample from the K-12 school included teachers who taught career readiness courses. Results using the Culturally

Responsive Teaching Scale (Siwatu, 2007), revealed teachers at the K-12 school, who had less than three years of classroom teaching experience were found to be less efficacious in CRT. The implications of the study suggested creating a high performing professional learning system that integrated a learning culture that supported culturally responsive pedagogy for educators.

Theoretical Framework

This chapter focuses on professional learning systems that may help support teachers improve their equitable pedagogy efficacy. The term system was used as an addition to professional learning as the researcher sought to understand the nuances of how professional learning could be designed to encourage development of a continuous support, learning, and improvement network around equitable pedagogy. Equitable pedagogy was used as a term in this study to encompass instructional practices that are sensitive or inclusive of the learning needs of marginalized communities (e.g., Banks, 2015; Gay, 2000; Ladson-Billings, 2009; Wink, 2011.).

The study incorporated Bandura's (1997) social cognitive learning theory as a theoretical framework. Social cognitive learning theory (Bandura, 1997) focuses on individuals as captains of their own self-development. At the core of the theory lies people's efficacy, both individually and collectively (Tschannen-Moran & Chen, 2014). Self-efficacy is defined as one's belief in their ability to succeed or accomplish a goal or task (Bandura, 1986). Collective efficacy is defined as an individual's or group of individuals' beliefs that they achieved as a team (Bandura, 1997). Ultimately, these beliefs influence an individual's ability to be productive, achieve tasks, and withstand difficult tasks and life events, according to Bandura (1986). The current literature review used Bandura's social cognitive theory to understand how professional learning may

influence teacher instructional efficacy. Then, a meta-analysis was conducted to understand how professional learning might influence teachers' equitable pedagogy efficacy.

For teachers, self-efficacy is related to their motivation and can affect their instructional strategies and performance in the classroom (Lee, Zhu, & Diaz, 2017). Teachers with high self-efficacy are more apt to believe they can influence student learning as well as feel more motivated to learn and implement new instructional strategies (Lee et al., 2017). Further, teachers with higher self-efficacy are more willing to learn new instructional strategies with the help of an instructional coach or a peer-to-peer coach (Tschannen-Moran & Chen, 2014). Therefore, this study expounded on social cognitive theory by focusing on professional learning methods that might increase the efficacy of teachers and hence, increase their instructional strategies.

Teacher Individual and Collective Beliefs

Teachers' beliefs about their abilities to affect student learning can influence their motivation to integrate new pedagogical strategies into their practice (Bandura, 1997). Teachers who have higher self-efficacy excel in planning and organizing and persevere while instructing struggling learners (Tschannen-Moran & Chen, 2014). Additionally, they have a growth mindset towards students they teach, according to Tschannen-Moran and Chen. Similarly, if teachers do not believe in the capabilities of the teams they worked with, they may be less likely to endure difficult tasks (Bandura, 1997), such as applying culturally responsive pedagogy. Further, change only occur if gaps in teacher beliefs are recognized (Avalos, 2011). Therefore, considering how teachers change from a systems approach allows a closer inspection of how to support them. As teachers transcend their motivations and beliefs into practice, professional learning that includes opportunities for critical reflection can help support their growth

(Tschannen-Moran & Chen, 2014). Given the connection between teacher beliefs and their abilities or willingness to incorporate new teaching skills, social cognitive theory was a useful tool to understand teacher self-efficacy development needs.

Education organizations that support teacher learning processes by incorporating collaboration and networking have been found to be more successful in fostering teacher change than those that have a rigid policy culture (Avalos, 2011). When teachers are approached by other teachers, professional development trainers, or others, with new concepts, they will assess whether the practice is relevant or applicable to them and decide if they will participate (Gregoire, 2003). Further, their level of efficacy can determine their motivation for implementing changes with fidelity (Gregoire, 2003). Changes in teacher efficacy can vary from subject to subject and incremental gains can be seen over time, rather than all at once (Tschannen-Moran & Chen, 2014). Aligned to the thought of incremental gains, Learning Forward (2011) recommends allowing five years for adult learners to master new concepts while also providing individualized coaching.

Self-Efficacy and Culturally Responsive Teaching

Teachers who have a strong perception of their own CRT efficacy can provide all students with a foundation for learning new ideas and experiences in the classroom (Ladson-Billings, 2009). Additionally, Ladson-Billings (2009) posited confident teachers are more likely to employ their abilities to implement learning experiences that are more culturally relevant, cater to the individual needs of the students, and connect students' classroom learning to their own cultural backgrounds. Teachers' culturally responsive pedagogical efficacy and students' achievement has been correlated in some research (Oyerinde, 2008); therefore, teachers' beliefs play an important role in student's everyday classroom learning.

Culturally responsive teaching is an integral instructional concept that triggers student learning and capacity to handle rigorous learning (Hammond, 2014). Therefore, as further posited by Hammond (2014), it is imperative for teachers to be knowledgeable and efficacious of CRT concepts. As explained by Hammond, teachers should work to become more aware of their own cultural lens, connect content to student culture, create learning partnerships with students through trustful relationships, reduce student social-emotional stress, and create a learning environment that endorses community and social safety. Becoming knowledgeable and efficacious in CRT is a skill that is challenging and requires training for all teachers to be successful in implementing the practices in the classroom (Coffey & Farinde-Wu, 2016). Teachers of all racial backgrounds can become competent in CRT (Gay, 2000) and teach students of various ethnic backgrounds (Milner, 2007). Teachers who perceive themselves as less efficacious in culturally responsive pedagogy can transition to perceiving themselves as more efficacious through collaborative discussions and processes with both novice and experienced teachers (Coffey & Farinde-Wu, 2016).

Review of Intervention Literature

As discussed in the previous chapters, teachers in the 21st century classroom face the onus of meeting standards set forth by national, state, and local guidelines, integrating technology to provide advanced learning opportunities for students, and practice pedagogical strategies that prepare students for college and/or careers (Darling-Hammond et al., 2009). Professional learning systems that include deep commitment, coaching, teacher reflection, opportunities for dialogue, voluntary participation, and collaboration are necessary for successful implementation whether teachers are a novice or well experienced (Desimone et al., 2002).

Postsecondary success is viewed as a youth or young adult having the knowledge, understanding of identity, and a growth mindset for making intentional decisions for the future (Nagaoka, Farrington, Ehrlich, & Heath, 2015). Critically, students of color attending low performing schools do not receive needed support around their potential to achieve academically and in their career aspirations (Jackson et al., 2011). As such, providing students with environments that encourages them to overcome obstacles can influence their self-efficacy, skills, and can create positive outlooks in their college and career development (Farrington, 2014).

In this literature review, professional learning from the aspect of developing teachers as leaders is discussed. Then professional learning using adult learning standards is discussed. Next, coaching and professional learning communities are discussed as two professional learning concepts that may influence teacher efficacy. Finally, a conclusion based on the literature is presented.

Transformational Leadership and Teacher Efficacy

As teachers develop their self-efficacy, incorporating aspects of learning that empowers teachers to utilize leadership skills in their growth helps them be accountable in their instructional practices (Corcoran, Shields, & Zucker, 1998). Specifically, teacher leadership that is transformational in nature may be seen through PLC practices by using collaboration and team work as outlined in Warrick's (2011) work.

Organizational cultures that foster collaboration and team work also inadvertently influences teachers to be transformational learners and positively affects their self-efficacy (Oude-Groote, Beverborg, Slegers, & van Veen, 2015). Transformative learning takes place when experiences change the schema or perspective of the learner, making them continuous

learners (Mezirow, 2000), an attribute akin to transformational leaders. Transformational leadership practices build teacher capacity by involving them in “vision building, individualized support, and intellectual stimulation” as further asserted by Oude-Groote et al. (2015, p. 9). Further, transformational leaders who have clear expectations and aligns those expectations with organizational goals and student achievement outcomes create opportunities for teachers to see themselves as goal interdependent (Oude-Groote et al., 2015) while also developing growth mindsets (Tschannen-Moran & Chen, 2014).

Beyond vision, educational transformational leaders establish community among teachers by motivating them and creating organizational wide cohesion (Brezicha, Bergmark, & Mitra (2015). Establishing a sense of community with opportunities for teachers to learn from one another also increases teacher efficacy through reflective practices (Youngs & Lane, 2014). Teachers who understand shared goals, have collaborative environments, and a sense of trust are more likely to implement change within their classroom instruction and practice (Newmann, King, & Youngs, 2002).

A case study conducted by King and Stevenson (2017) illuminated professional learning communities as an effective means to increase teacher self-efficacy through transformational leadership. The researchers explored five urban, disadvantaged schools to examine how school leadership could influence teacher leadership while implementing and sustaining school change. Using a collaborative professional development model, school principals and teachers participated in professional learning to improve literacy outcomes for third-grade students. Using a social constructivist view, the researchers argued teacher agency would increase with leadership development through increased autonomy and collaborative engagement practices in their professional learning experiences. The authors leaned on distributed leadership as a

guiding principle, but also posited transformational leadership would be reflected through the principal's hands-on involvement with teachers. The principal's transformational leadership was displayed in their ability to see the needs of their teachers, offer support, and work collaboratively to achieve goals. The results of the study indicated teachers displayed leadership in their concern for classroom level issues, rather than school or departmental issues. Teacher leadership and agency in implementing new concepts in the classroom was also noted by the researchers. Sustainability of the teacher growth through leadership distribution was seen in four out of the five schools. The authors attributed the success of schools that sustained the model of teacher change to principals providing support and valuing teachers as well as trusting them and allowing agency and autonomy through professional learning communities (King & Stevenson, 2017).

Teacher and Principal Relationships

Transformational leadership in a teacher and principal relationship can raise the collective efficacy of teachers (Ninkovic & Floric, 2018). One way collective efficacy of teachers can be influenced by transformational leadership is through the leaders' ability to foster a teamwork environment, create goals for the collective body, and inspire belief in goals (Arthur & Hardy, 2014). Additionally, the school principal as leader of the school supports teachers through role modeling and creates an environment that is conducive for teachers to have access and freedom to ask questions and perform critical reflective time (Brezicha, et al., 2015). Through these processes, school leaders can gain access to increase teacher's efficacy by increasing their sense of believing they can achieve (Tschannen-Moran & Chen, 2014).

In a study conducted by Mehdinezhad and Mansouri (2016), the relationship between principal leadership and teacher self-efficacy was investigated. The researchers investigated if

there was a significant relationship between principal leadership style and teacher self-efficacy. Using random sampling, a total of 254 teachers in Iran participated in the study and were assessed using the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001) and the Leadership Multifactor Questionnaire (Bass & Avolio, 1990). A significant relationship was found between the principal's leadership behaviors and self-efficacy of teachers. The study confirmed transformational leadership influenced the motivations of teachers and inspired them to implement new methods by developing teachers as leaders (Mehdinezhad & Mansouri, 2016).

After conducting a study with 120 secondary school teachers, Ninkovic and Floric's (2018) findings similarly showed that collective teacher efficacy and transformational leadership could have a positive relationship. Using the Perceived Collective Teacher Efficacy and the Norwegian Teacher Self-Efficacy Scales (Skaalvik & Skaalvik, 2010), the researchers found a significant correlation between transformational school leadership with collective teacher efficacy. The researchers investigated three factors associated with transformational leadership: setting directions, redesigning the organization, and developing people by improving the instructional program. The factors were analyzed using a hierarchical regression analysis to determine how the factors contributed to collective teacher efficacy. A higher correlation was found in the influence of the developing people variable, causing an increase in collective teacher efficacy. Additionally, teachers' sense of self-confidence was causally related to empowering teachers to take risks in applying new concepts and overall school culture, in a study conducted by Balkar (2015). The study focused on the empowerment of teachers as an agent of change implemented by school leaders. It also illuminated correlations between empowerment leadership and transformational leadership style pointing to the importance of school principal's leadership and their ability to empower teachers (Balkar, 2015).

Professional Learning Standards

The current intervention literature review focused on professional learning, also referenced as professional development, as a learning model to increase teacher's culturally responsive pedagogical efficacy. Professional learning standards are discussed to examine quality fundamentals of professional learning, using Learning Forward (2011) as a guide. Integrating professional learning systems in educational institutions can be a challenge for educational leaders (Learning Forward, 2011). One important aspect of professional learning integration is ensuring teachers feel the professional learning opportunity is attractive and would be effective in expanding their knowledge and skills (Guskey, 2002). In addition to professional learning attractiveness and effectiveness, the role of the environment in which teachers work and learn must also be conducive for teacher learning; resources and equipment must be available to support teacher learning (Clarke & Hollingsworth, 2002). Learning Forward (2011) gives practical direction for implementing and sustaining quality professional learning for teachers through seven standards: learning communities, leadership, resources, data, learning designs, implementation, and outcomes. As educational leaders prepare learning systems that include accountability and support for teachers, they must also work to ensure they are skillful in self-development and in developing the capacity of others (Learning Forward, 2011), making learning the hallmark of leadership. Further, educational leaders should align professional learning with outcomes to increase student achievement, advocate for career learning, and support continuous improvement according to Learning Forward (2011). Continuous support for improvement and career learning was also noted by Darling-Hammond, Hyper, and Gardner (2017) as an important practice for effective teacher instructional professional learning. Continuous support can be provided through resources such as time, materials, technology,

funding, and human capital (Learning Forward, 2011). Learning Forward (2011) further asserts, the availability or lack of availability, as well as the quality of resources available impacts the results of professional learning.

In addition to continuous support during professional learning, a commitment to continuous quantitative and qualitative data collection and analysis is critical to promoting the progress of adult learners and their students (Learning Forward, 2011). Adult learning calls for planning, monitoring, and reflecting upon the learning experience (Rohlwing & Spelman, 2014). Learning designs, whether informal or formal, should be embedded in learning theories, cater to learning outcomes of educators and students, and encourage active engagement (Learning Forward, 2011).

The current study also explored how professional learning systems should be designed to influence equitable pedagogy efficacy. Following Learning Forward's Standards for Professional Learning (2011) as a guide, the outcomes for an effective professional learning system should be focused on performance standards that outlined high expectations in "preparation, assessment, licensure, professional learning, practice, and evaluation" (Learning Forward, 2011, p. 49). Further, outcomes should also be based on student learning outcome needs according to local or national standards as posited by Learning Forward (2011). Essentially, teacher professional learning opportunities that support student learning outcomes ultimately supports students in becoming globally competitive (Reutzel & Clark, 2014).

Coaching and Teacher Efficacy

Coaching is a nonevaluative method to provide instructional support for teachers and aims to help teachers develop their pedagogical practices (Marzano & Simms, 2013). Important components of coaching include actions such as modeling, mentoring, reflection, and feedback

(Campbell & Malkus, 2014). Coaching also allows teachers who are master teachers to incorporate leadership skills and continuous support for teachers on their team (Ellington & Haver, 2013). Leadership skills incorporating the use of continuous support can also be seen in transformational leadership skills such as teamwork and reflective practices (Corcoran et al., 1998). Further, coaching allows teachers extensive opportunities to learn through reflective practice while learning new skills and practices (Ovenden-Hope, Blandford, Cain, and Maxwell (2018).

Following transformational leadership as a conceptual framework, a connection between teamwork, leadership development, and teacher efficacy is demonstrated through coaching practices. A focus on teamwork through teacher and coach interaction can bolster the self-efficacy and competence of teachers, while also increasing teacher's willingness to participate (Wheby, Maggin, Moore Partin, & Robertson, 2012). Through teamwork interactions that occur during coaching, teachers gain access to expertise and are allowed time to master skills, contributing to an increase in their self-efficacy over time (Tilton & Hartnett, 2016). Researchers Tilton and Hartnett (2016) revealed findings of increased teacher efficacy after conducting a qualitative study to ascertain teacher efficacy. The study included 60 teachers who participated in a one-year technology professional intervention using coaching as a method for training. Specifically, modeling was used as a method for coaching. The researchers noted some of the teachers involved in the study indicated they were at ease working with colleagues who experienced success in learning new technology. Their findings were aligned with Schunk and Pajares' findings (2002), which asserted that when the model or individual who was coaching found success, it caused a reciprocal effect and created greater confidence or efficacy for the individual being coached.

Similar to Tilton and Hartnett's (2016) conclusion that professional development involving coaching over an extended amount of time increased teacher efficacy, Darling-Hammond (2010) also concluded professional development workshops that only provide a one opportunity for learning were ineffective and did not allow teachers to solve their problems of practice. An intervention conducted with the Early Diagnostic Reading Intervention through Coaching (ENRICH) program further illustrated Darling-Hammond's (2010) thought. Using three semi-structured interviews and a pre and post survey, Amendum (2014) assessed teachers' early literacy and professional development knowledge over a period of one school year in the ENRICH program. The researcher found that teachers who experienced professional development through a method of ongoing coaching, felt supported and increased their content and instructional knowledge, making them feel more efficacious. Further, the study found that coaching that was facilitated by an individual who encouraged the learner to learn a new skill created a more impactful learning experience for the teacher. Additionally, through qualitative interviews, the researchers found participants commented there was added value to their professional development due to the coaching component.

Similar to Ellington and Haver (2013), Schunk and Pajares (2002) concurred that coaching that was continuous and allowed the adult learner to observe and learn a skill by practicing allowed the learner to perceive they could be successful in the skill (Schunk & Pajares, 2002). A longitudinal study by researchers Tilton and Hartnett (2016) further elucidated the benefits of coaching through practice. The researchers used coaching as a tool to implement training for teachers who felt low efficacy; the coaching involved using an iPad mini. After teachers received continuous coaching over a period of one year, the study revealed teacher's efficacy was influenced positively. In contrast, continuous coaching may have had a different

factor that contributed to improved efficacy outcomes for teachers. As evidenced by Shidler's (2009) study, there are several complexities that impact continuous coaching as a factor that increased teacher efficacy. Using coaching to enhance teacher performance in early reading instruction, Shidler (2009) found that teachers increased their efficacy over the first year of coaching; however, in year two and three there was noted change. The change in teacher efficacy was attributed to focused instruction. However, the variance between Shidler's (2009) and Tilton and Hartnett's (2016) findings could be attributed to Shidler's methods using coaches who were adult educators with several years of experience, whereas Tilton and Hartnett used classroom students as coaches.

Professional Learning Communities and Teacher Efficacy

Professional learning communities (PLC) are a group of educators that practice ongoing collaboration to engage in inquiry and active research with a goal to harness innovative ideas and implementation practices for improved student outcomes (Edutopia, 2020). Professional learning communities (PLC) can help teachers develop new skills and pedagogical practices while working as a team of teachers that share their practices through a continuous, collaborative, and reflective way (Gilbert, Voelkel, & Johnson, 2018). Successful PLCs are those that implement inquiry processes for continuous improvement, create shared or collective responsibility to improve student learning, and have a system of accountability (Learning Forward, 2011). Professional learning communities can provide support teachers in preparing students for career readiness settings by addressing the challenges that come with learning and implementing content set forth by local, state, and national standards (Dagen & Bean, 2014). Creating an environment that fosters teacher and collective efficacy provides support for professional learning (Youngs & Lane, 2014). The collective beliefs of teachers can effect the

productivity of learning communities (Tschannen-Moran & Chen, 2014). Additionally, collective efficacy allows teachers to collaborate to achieve a common goal of student learning and academic success (Tschannen-Moran & Chen, 2014). Youngs and Lane (2014) posited building teacher relationships by allowing opportunities to collaborate and draw on their own experiences rather than implementing new instructional techniques is a way to make teachers feel valuable and efficacious. Additionally, allowing teachers to be agents of their own development by soliciting their prior experiential information prior to the professional learning design empowers teachers to link their prior experiences to current experiences in the classroom (Tschannen-Moran & Chen, 2014). Incorporating these aspects of learning to help teachers face the tensions of accountability in implementing professional learning opportunities is needed to support them in their instructional practices (Corcoran et al., 1998). An organizational learning culture that fostered collaboration, trust, cooperation, and group decision making should be the foundation of a PLC (Stoll, Bolan, McMahon, Wallace, & Thomas, 2006; as cited in Oude-Groote, et al. [2015]). Ultimately, organizations that have teachers with high levels of efficacy positively influences student learning (Hattie, 2009). Using PLCs is one method to establish or grow efficacy in teachers (Corcoran et al., 1998).

In a study, conducted by Voelkel and Chrispeels (2017), the relationship between PLCs and teachers' collective efficacy was examined. The mixed method study used quantitative data to determine the level of how PLCs were implemented in schools within a K-12 school district. Qualitative data were used to examine teacher's perception of collective efficacy in high and low functioning teams using professional learning communities. The K-12 school served 69% Hispanic or Latino students and 76% of the students whom teachers serve receive free or reduced lunch. The findings revealed teacher collective efficacy was enhanced due to implementing

PLCs that performed high level competency work, including setting collective goals, focusing on results, analyzing data to see strengths and weaknesses, collective goal setting, and using data to improve teaching and student learning. The results of the study aligned with Learning Forward's (2011) direction that the inclusion of an accountability system ensures a quality professional learning program.

In addition to an accountability system, PLCs can be a strong school support system, according to a quantitative study by Gray and Summers (2015) which examined teacher collective efficacy. The researchers found that PLCs increased teacher collective efficacy when the PLCs were supported by school structure and teachers trusted the principal. In another study, Goddard, Goddard, Kim, and Miller (2015) found that teacher collaboration and collective efficacy were connected to the implementation of teacher collaboration through PLC's structures. The study conducted by Goddard et al., involved 1,606 teachers in 93 rural elementary schools that served high poverty students and found that teacher collaboration in a PLC setting was integral to teacher's increased efficacy. Collaboration was also found to be an important variable by Kennedy and Smith (2013), while using PLC implementation to increase teacher efficacy. The researchers identified collaborative variables: collective peer relationships, learning, reflection, leadership/vision, and making decisions. Within these variables, the researchers found that reflective practice increased teacher efficacy in practices such as reviewing data, sharing ideas, and participating in professional development. One difference in the studies between Goddard et al. (2015) and Kennedy and Smith (2013) were that Goddard et al. focused on collective efficacy, whereas Kennedy and Smith focused on teacher individual efficacy. Further Goddard et al. focused on collaboration as a factor in PLCs and Kennedy and Smith (2013) focused on how school context influenced teacher efficacy.

Researchers Zounoubi, Rasekh, and Tavakoli (2017) also found increases in teacher collective self-efficacy in innovative instructional strategies, classroom management. The researchers also noted the necessity of ongoing collaborative and reflective practices. Their study consisted of PLC sessions that met for 24 weeks for two hours per week, while encouraging observation, sharing of classroom teaching experiences, and online messaging to communicate with each other. Using qualitative data including observations and interviews, the results of the intervention revealed teachers experienced improved pedagogical self-efficacy. Novice teachers experienced improved pedagogical self-efficacy in their decision making and classroom management. Overall, teachers experienced an increase in their collective efficacy as revealed in their beliefs in other teachers' abilities and understanding the challenges that other teachers face on their team. Another PLC study using CRT as a theoretical framework was conducted over a course of three years, by researchers Guerrero, Shahnazarian, and Brown (2017). After conducting a study using 25 K-12 teachers, the researchers found three concepts were driving forces in the success of the study increasing teacher efficacy: commitment to ensuring the sessions were responsive and held to the theoretical framework, providing ongoing support, and providing reflexive, collaborative approaches. The teachers were matched with five to six students who were identified as low performing. Both teachers and students participated in focus groups to learn more about students' needs. The teachers then participated in PLC sessions that extended over a course of two years and involved teachers and administrators who collaborated to find workable solutions to the qualitative results of the focus groups.

In contrast, researchers WeiBenrieder et al. (2015) found collaboration as an important element in PLCs. However, they did not find an increase in teacher collective efficacy after conducting an intervention using continuous professional development courses. Sixty-one math

teacher participants engaged in self-study, eLearning mathematics courses, while also joining in collaborative group work and reflection discussions. The researchers attributed the lack in increase to self-reporting surveys that may have inundated teachers with already high workloads, causing a decrease in the post test estimations.

Literature Review Summary

The literature review within this paper supports the argument that professional learning can contribute to improved teacher efficacy. Using transformational leadership as a solution to raise the efficacy of teachers, particularly collective teacher efficacy was also supported within the literature. Self-efficacy was considered a multiplier to the role of professional learning communities. Therefore, the development of self-efficacy plays an important role and pliable characteristic in changing the behavior of teachers (WeiBenrieder et al., 2015). The literature reviewed served as a pathway to further understand professional learning systems that could improve equitable pedagogy efficacy. A meta-analysis was conducted to examine previous studies that have implemented professional learning systems to influence equitable pedagogy efficacy.

Meta-analysis

For this study, a meta-analysis was conducted using 51 articles as the result of the initial literature search. The aim of the data collection was to generate published, peer-reviewed qualitative, quantitative, and mixed methods studies for cross-case analysis (Yin, 2018). The purpose of the meta-analysis was to conduct theory-generating research that can be used to design a professional learning online module. Studies were chosen that would enable the researcher to elucidate effective process theory for professional development that supports or increases teacher efficacy around equitable pedagogy practices (Finfgeld-Connett & Johnson,

2018). To expand the research beyond the culturally responsive term that was used in the needs assessment in chapter two, the research was extended to include other instructional or pedagogical terms that are aligned to the practice of incorporating the culture of students into all aspects of learning. Theory generated meta-analysis research should be relevant within context and broad enough within context to produce findings that are generalizable (Finfgeld-Connett, 2018; Yin, 2018). Expanding the terms assisted with the ability to determine relationships (Finfgeld-Connett, 2018) in the empirical literature as data. Expanded terms included: critical pedagogy, culturally relevant instruction, and multicultural education. According to Wink (2011), critical pedagogy involves learning and unlearning difficult learning experiences to shift pedagogical methods that were more relatable and inclusive of all students. Culturally relevant instruction encourages educators to develop skills that allows them to teach in a multicultural setting by developing caring relationships, providing a supportive learning environment by bridging culture and empowering students, and incorporating multiple perspective in the classroom including culture and identity (Jackson, 2014). Multicultural education aims to incorporate the experiences and perspectives of cultural groups who have historically been marginalized by challenging mainstream values; ultimately seeking to empower and uplift marginalized groups (Banks, 2015). All expanded terms focused on the need to incorporate student's culture and learning needs in instructional practices using an asset-based approach, bringing relevance to the terms.

Meta-analysis Procedure

Meta-analysis research was used as a method to extract and analyze the qualitative findings of previous existing research that implemented professional learning with a focus on improving teacher efficacy around equitable pedagogy. A database search was conducted to find

research aligned to the purpose of the study. Following the meta-synthesis guide of Finfgeld-Connett (2018), a crosswalk table was designed to organize and label attributes of the study. The crosswalk table can be found in Appendix B. Once the crosswalk table was completed, a second inclusion review of the articles was conducted to increase the validity of the meta-analysis. According to Finfgeld-Connett (2018), the validity of a meta-analysis can be improved by searching across multiple, yet specific databases to develop an initial sample, then further searching using an exhaustive theoretical framework that will lead to emerging concepts. Continuing with Finfgeld-Connett's (2018) recommendations for meta-analysis, emergent coding and categorizing (Miles et al., 2013) of the remaining articles was conducted, resulting in a deduction of factors gleaned from the literature that indicate professional learning factors that may contribute to equitable pedagogy efficacy. The following section further explains the meta-analysis process.

Meta-Analysis Data Collection

Data collection began with the researcher conducting a database search using key terms to find original, peer reviewed studies including possible combinations of the equitable pedagogy context using culturally responsive OR critical pedagogy, OR culturally relevant instruction, OR multicultural education, OR cultural responsiveness, AND teacher efficacy, AND professional development. Databases were used that included topics such as education, social sciences, and psychology. The databases were also searched according to peer reviewed articles, interventions, or dissertations published between 2010 to 2020. All studies had to be facilitated with a goal to effect teacher efficacy in equitable pedagogy and the participants had to work with students from diverse populations. The initial search yielded 51 articles. Using the inclusion criteria, the researcher reviewed article titles and abstracts to determine eligibility for the current study.

Next, the introduction, methods, and population were reviewed to further evaluate inclusion of the study. Finally, 24 articles were found to fit the criteria of the current study.

To further analyze the 24 remaining articles from the database search, a cross walk table was created to extract data needed for the meta-analysis including purpose, sample, methods, and findings (Finfgeld-Connett, 2018). The cross walk enabled the researcher to further examine the 24 articles for inclusivity in the study. Upon completion of the crosswalk, articles were eliminated according to the following criteria: (a) the participants were involved in professional learning that was not directly connected to the article, (b) no professional learning program was performed, (c) teacher efficacy was not examined in relation to the professional learning program, (d) the dependent variable did not include professional learning that included terms such as cultural responsiveness, critical pedagogy, cultural competence, multicultural education, or transformative teaching. The following section provides an overview of the seven articles that remained after the second study inclusion review.

Meta-analysis Article Review

The following sections discuss seven articles that were reviewed for the current meta-analysis study. Each article was specifically reviewed for details of the professional learning program including methods and specific activities implemented during the learning program. The articles were categorized by learning program methods as a first step in analyzing the articles. After categorizing the articles, a detailed account of the learning activities that occurred within each study and the consequent findings are highlighted.

Co-teaching, pedagogical training, historical tours. Using four urban schoolteachers with at least four years of teaching experience, Bradshaw, Feinberg, and Bohan (2018) examined a grant funded professional learning program, that occurred because of a national program called

Seeing History in Focus Together (SHIFT). The SHIFT professional learning program occurred over a span of seven meetings, including five class meetings and two local field trips to places of historical significance in the participant's community. Class meetings used co-teaching as the primary method for facilitation, while teachers received intensive training from history and social studies pedagogical experts. During historical lessons, the university professors also infused culturally relevant pedagogy by infusing the history of marginalized groups. Local field trips included state, city, and regional history centers, presidential libraries, and civil rights museums that included tours and lectures. Additionally, teachers were asked to create an original lesson plan using the knowledge they gained during the program. The focus of the developed lessons was to address the need for diversity, the history of omitting culture from textbooks, and addressing the socio-cultural needs of students. Teachers later were observed as they implemented their created lesson plan.

Culturally relevant efficacy and knowledge were used as dependent variables as the authors sought to examine if SHIFT impacted teachers' content knowledge, if SHIFT pedagogical tools were utilized by participants in the classroom, and how culturally relevant pedagogy instruction translated into practice. Data were collected using evaluation reports, focus group interviews, and observations. The findings indicated teachers incorporated culturally relevant pedagogy, learned new lessons and strategies for incorporating culturally relevant content, and increased confidence in authentically connecting with diverse students because of the SHIFT program. The researchers found an emerging theme through the focus groups that indicated teachers found the historical lectures most meaningful and useful for understanding the need for cultural responsiveness.

Coaching and Training. Using 158 urban elementary and middle school classroom teachers with a broad (unspecified) range of years of teaching experience from 12 different schools within one school district, Bradshaw, et al. (2018) examined a modified Double Check Model professional learning program that implemented coaching to assist teachers with cultural responsiveness. The primary focus of Double Check was to address overrepresentation of students of color in disciplinary measures such as referrals and suspensions. One element of Double Check included cultural responsivity and student engagement models. The mixed methods study used a randomized controlled model to examine if there was a difference in outcomes from the full sample of coached and noncoached teachers, and if coached teachers demonstrated higher scores on the office disciplinary referral data, self-report, and Assessing School Settings: Interactions of Students and Teachers (ASSIST). One hundred participants received individual coaching as part of five, 60-minute trainings. Coaching included a five step process adapted from the Classroom Check-Up coaching model: (a) establish rapport between teacher and coach by focusing on teacher strengths in cultural responsiveness, other classroom strengths, and how they would like to change or improve; (b) teacher reported survey to assess teacher perception of culturally responsive and classroom management strategies; (c) classroom observations by coaches; (d) coaching feedback for teachers including strengths and weaknesses and collaborative goal setting to implement new strategies; and (d) implementation of new strategies including feedback from coaches. Coaching was provided by four researchers who were external to the school and were experienced in coaching.

In addition to five step coaching, trainings covered five core domains of cultural responsiveness: (a) student cultural connections to curriculum, (b) creating authentic relationships between teacher and student by helping students adapt to classroom including

tensions and social competence (c) reflection to understand implicit biases, (d) improve communication with students by understanding how they may react culturally and encourage positive and consistent interactions, and (e) sensitivity to student's culture by understanding their cultural background and highlighting the strengths they possess.

According to the quantitative data, there were no significant differences in culturally responsive efficacy between the coached and noncoached participants. However, teachers who were coached indicated they created fewer referrals for Black students by employing new classroom management principles learned during the professional learning program and rated their CRT efficacy as higher as an outcome of the Double Check modified professional learning program.

Community of Learning. Stevens (2019) examined the Kahui Ako community of learning professional learning project. The study was conducted using a sample of four registered teachers who were connected to the Teaching Council in New Zealand Matau. Participants engaged in an unspecified amount of community of learning sessions that placed emphasis on teacher collaboration. Using emerging themes from research, the creators of the Kahui Ako professional learning project engaged teachers in conversations which allowed them to learn from one another, co-create methods for sustainable improved achievement accountability, and implementing kindness and compassion values.

Upon completion of the community of learning sessions, Stevens (2019) conducted semi-structured interviews to explore if the community of learning sessions positively impacted teachers' perceived confidence and competence in culturally responsive pedagogy using across community teacher (ACT) interactions. Additionally, the researcher sought to identify practices that enabled or acted as barriers for ACT to positively impact teacher perceived confidence.

Finally, the study sought to identify specific examples of how the program impacted teacher perceived confidence and competence in culturally responsive pedagogy. Using semi structured interviews, Stephens (2019) found that teachers felt their improvement in culturally responsive confidence was attributed to effective working relationships, making connections across the learning community, and sharing expertise with other teachers. External expertise was also sought to provide deeper insight of culturally responsive practices and participants believed the expertise contributed to their perceived confidence in CRT. Limitations were a small sample size.

Neighborhood Treasure Hunt Field. Johnson, Carpenter, Richards, and Vincent (2019) conducted a mixed method study using autobiographical narratives to explore to what degree culturally responsive field experiences influenced the knowledge, beliefs, and perspectives of teacher candidates regarding cultural responsiveness. Through a PreNeighborhood Treasure Hunt Survey and professional learning community meetings, participants engaged in weekly session for 10 weeks. During the professional learning program, participants were assigned to schools in groups. Each group was led by a faculty member who facilitated K-12 classroom observations. The observed classes served students from low and high socioeconomic neighborhoods in a metropolitan area. Participants also engaged in a neighborhood treasure hunt that allowed participants to engage in a community mapping activity to understand contextual values, norms, and dynamics. Participants then interviewed district level leaders such as superintendents, equity directors, and human resources personnel to learn details about their district, such as mission statement, demographics, and district initiatives. Conversations with school leaders such as specialists, receptions, and parent groups took place to better understand how each stakeholder was involved in students' education. Additionally, participants read

supplemental culturally responsive literature and engaged in collaborative literature discussions during each professional learning community meetings. Finally, participants engaged in field experience classroom observations and submitted weekly reflections regarding how the observation experiences informed their thinking, ideas, and projected practices.

Researchers found that teacher candidates felt increased confidence in their abilities to incorporate CRT practices. Teachers reported their increased confidence was attributed to opportunities for teachers and educational leaders to engage and connect with families and communities outside of the classroom to provide a scaffolding experience for teachers.

Lecture, interaction, and reflection. To investigate teacher efficacy in transformative learning, Quillinan, MacPhail, Dempsey, and McEvoy (2019) conducted a qualitative study after ten adult learners in a college education course participated in Community Wellness, Empowerment, Leadership, and Life Skills (CWell) Professional Development. CWell focused on use of lecture, interaction, reflection, and drawing prior knowledge and attitudes for participants. CWell modules included 11 lectures from six departments in education and health sciences. Researchers gathered data on participant lecture style. Using 15 interviews and 11 focus groups, Quillinan, et al. found that participants reported an increase in their culturally responsive efficacy. Participants indicated collaborative relationships were an important factor in increasing their efficacy. The researchers also noted that participants advised that transformative teaching occurred through reflection on ethics, on how to be socially conscious in their instructional practices, and on eliminating visible and invisible boundaries between the teacher and learner. Participants also noted that learning the value of social discourse further extended their abilities to create a transformative learning environment.

Mentoring and Learning Communities. Roehrig et al. (2011) conducted a study with 37 head start teachers who taught in a Native American reservation in midwestern United States. Participants engaged in Ah Neen Dush professional learning program. The Ah Neen Dush professional development series focused on use of native American languages and culture and focused on developing teachers' positive attitudes toward science. The program focused on teacher's making connections between families and community members through, online and monthly face to face mentoring classroom sessions, and learning communities that allowed teachers to collaborate and learn from one another. Over a period of two years, teachers engaged in monthly workshops, a weeklong workshop during the summer, and mentoring and discussions through a group website. Workshops consisted of photos and documentary evidence activities with a focus on science. Teachers also participated in discussions that allowed sharing of ideas on how to integrate culture in science lessons. The program focused on helping teachers understand the role of student interest, becoming aware that each student brings their own family culture to the classroom, and ensuring training meets the needs of teachers.

Roehrig et al., (2011) investigated if the professional learning program impacted participants' attitudes and practices about culturally relevant science teaching in early childhood settings. The researchers gathered quantitative data using the Classroom Assessment Score System (CLASS) and observations and focus groups. After the second year, teachers indicated they had more positive attitudes using culturally relevant practices.

Autobiographical Narrative and Reflexivity. Intercultural education is "placing a stronger focus on multiplicity and fluidity of cultures and cultural identifies, the impacts of cultural shifts during moments of cultural exchange with others, and the culture making that happens through everyday encounters, exchanges, and transformations (Cloonan et al., 2017, p.

131). Cloonan et al. (2017) conducted a qualitative study with teachers from 12 partnering schools to investigate if teachers increased their reflexivity through autobiographical narrative. Reflexivity was used in conjunction with autobiographical narratives to engage teachers in reflection on their own history, cultural interactions and how it influenced their relationships with others. The goal for using reflexivity was that participants would become more aware of their own prejudices or implicit biases. Use of autobiographical narratives allowed the researchers to use teacher voice to understand teachers' experiences, values, and beliefs and how they inform their teacher practices.

Teachers engaged in three sessions that included one workshop and two teacher meetings that focused on using autobiographical narrative. Workshop activities included teachers engaging in reflexive interrogation that led to sharing their autobiographical narrative about how their lives and relationships were shaped by ethnicity, religion, and cultural background. The second workshop consisted of teachers sharing who they are through autobiographical narrative to provide insight of their personal histories and cultural backgrounds. The final workshop consisted of teachers creating and implementing an event that featured students' artwork. While planning the event, teachers engaged in discourse to understand each other's thoughts regarding how the event should be organized as well as how culture could be highlighted while considering how all student cultures could be represented.

Researchers used field notes, observations, audio recordings from a larger study, teacher reflection, discussions, and autobiographical narratives to gather data. Teachers did not voice or indicate an increase in positive attitude or behavior in using intercultural skills to work with diverse populations. However, researchers noted that the use of autobiographical narrative may

be best used as an initial development method for teachers to practice reflection and develop a more sensitive awareness of how to work with students from diverse populations.

Analysis of Meta-Analysis

According to Finfgeld-Connett (2014), when conducting analysis and synthesis of qualitative findings to develop theory there are two methods that can be followed: (a) no preexisting assumptions about codes exist if the purpose of the study is to develop a new theory, and (b) develop tentative codes from the beginning when adapting an already existing framework or theory. The current study followed the former method as the goal of the research was to develop a new theory. Using the meta-analysis article review, a set of codes was developed to identify similarities and differences in the articles (Finfgeld-Connett, 2014). As described by Finfgeld-Connett, codes should create cohesiveness and provide clarity of the investigated phenomenon. Using an inductive coding process allows the researcher to discover and uncover important factors and can be better justified empirically, according to Miles, Huberman, & Saldana (2013). A vertical analysis was conducted to develop codes by viewing data across all articles. Each article was synthesized to understand the factors that contributed to improved culturally responsive efficacy. Coding was developed specifically for professional learning method factors that were indicated in the articles and resulted in improved culturally responsive efficacy. The codes were recorded in a categorical and sub categorical codebook to show how the codes are clustered. Clustering, according to Miles, Huberman, & Saldana (2013) allowed the researcher to make inferences and draw conclusion by placing the data into relevant response displays so that comparisons could be made for further analyzation. The following codes emerged from the article data as it related to factors that contributed to teacher efficacy in cultural responsiveness and could be found in the codebook: reflection, collaboration, coaching,

experiential learning, social-emotional relationships with teachers, social-emotional relationships with students, and connection to community.

Meta- Analysis Findings

Seven professional learning methods were drawn from the reviewed literature: reflection, collaboration, coaching, experiential learning, social-emotional relationships with teachers, social-emotional relationships with students, and connection to community. Based on the coded/categorized data, four factors were found most within the literature (Figure 2.1): reflection, collaboration, developing social-emotional relationships with students, and connecting to the community. As outlined in the research design, the four dominant factors were revealed by the meta-analysis. The meta-analysis guided Phase One of the study. As such, the findings of the meta-analysis allowed the researcher to ascertain factors that contributed to teacher efficacy around equitable pedagogy, leading to the development of a newly coined term by the researcher as cultural relational pedagogy.

Professional Learning Process Category	Reflection Code	Collaboration Code	Coaching Code	Experiential learning Code	Social-emotional relationships with teachers Code	Social-emotional relationships with students Code	Connection to community Code
Co-teaching, Pedagogical Training, Historical Tours	X			X		X	X
Coaching and Training		X	X			X	
Community of Learning		X			X		
Neighborhood Treasure Hunt, Community Mapping	X	X					X
Lecture, Interaction, Reflection	X	X				X	
Mentoring and Learning Communities		X				X	X
Autobiographical Narrative and Reflexivity	X						

Figure 3.1 Professional Learning Components of Equitable Pedagogy Strategies

Note: The categories represent the various professional learning methods that were discussed in the meta-analysis articles. Codes were established from emerging themes within the literature

Cultural relational pedagogy

Cultural relational pedagogy recognizes a need for teachers to understand the cultural identities and needs of students by developing authentic relationships with them. While engaged in authentic relationships with students, teachers also engaged in continuous self-development. In essence, as teachers evolved, the relationships with students evolved, thereby allowing students to learn in a supportive environment that catered to their cultural and learning interests.

Cultural relational pedagogy was developed by the researcher based upon the findings of the meta-analysis findings indicating four paramount factors that contribute to teacher efficacy in equitable pedagogy: reflection, collaboration, social-emotional relationships with students, and community involvement. Cultural relational pedagogy used the four factors as a foundation for

theory. Borrowing from Gee's (2003) opportunity to learn theory (an expanded version of sociocultural learning theory), cultural relational pedagogy pointed to the need to understand that students enter classrooms with their own identity and input and intake new knowledge in unique, individual ways. Therefore, the onus was on the teacher to connect student's learning language to the language that is taught in school. Cultural relational pedagogy used a non-western adult learning perspective by encouraging educators to develop themselves for the benefit of the community (Merriam & Kim, 2011). Therefore, learning was holistic, was applicable to life, and was attentive to learners' culture (Merriam & Kim, 2011).

Taken together, cultural relational pedagogy focused on four core factors that would develop the teacher relationally with themselves and the teacher/student relationship: (a) reflection: teacher reflects on implicit biases to understand self and works to improve biased perspectives: teacher reflects on past and current interactions with students and work to formulate bias free relationships with students; (b) collaboration: teacher develops relationships with other educators for self- development and to share knowledge; teacher collaborates with students to understand student cultural learning needs; (c) social emotional relationships: teacher connects with other teachers to share and receive support; teacher connects with students to provide individual support; and (d) community involvement: teachers learn and develop relationships within the communities that students live; teachers connect knowledge about students' communities to connect cultural language with classroom language. Cultural relational pedagogy was a cyclical phenomenon that involved continuous development of the teacher and teacher/student relationship. Figure 2 provides a visual representation of cultural relational pedagogy.

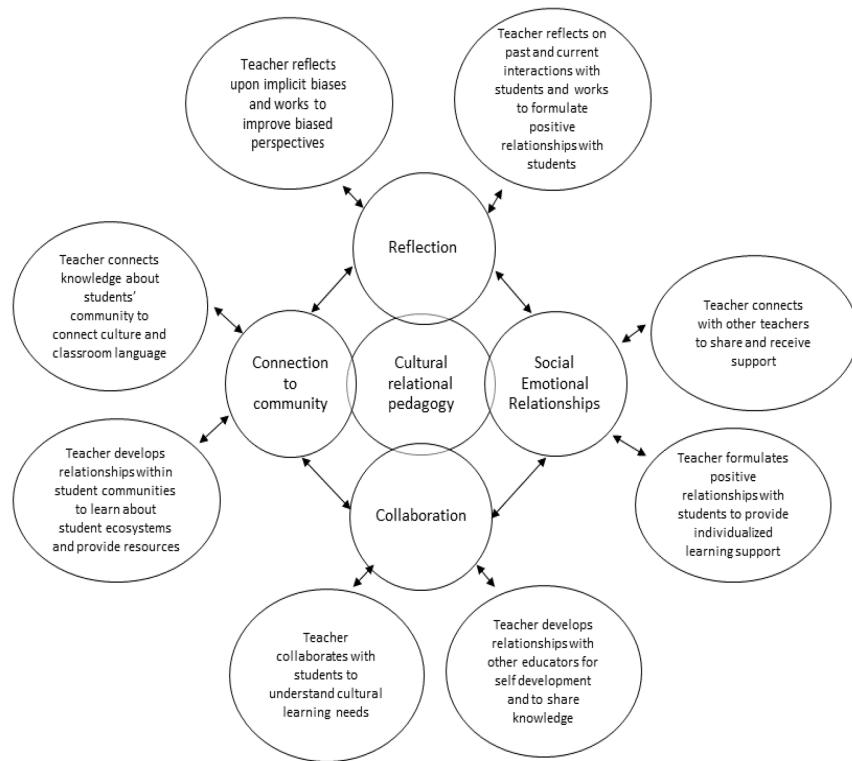


Figure 3.2 Cultural Relational Pedagogy

Cultural relational pedagogy served as the framework for developing an online professional learning course. The professional learning course served as a resource for incorporating theory into practice for educators to incorporate cultural relational pedagogy into their everyday classroom practices. It was the hope of the researcher that the online course would influence teacher's equitable pedagogy by learning about cultural relational pedagogy. The following chapter outlines the process evaluation for an exploratory case study using the cultural relational online professional learning course. Then the methods, description of the intervention, data collection, and data analysis of the study will be outlined.

Chapter 4: Exploratory Case Study Methods

Students of color in the United States face challenges in achieving post-secondary success within their career paths as compared to their White counterparts, contributing to a continuous cycle of poverty (Holland & DeLuca, 2016). Inequitable teaching practices in college and career readiness settings perpetuate disparities for Black youth and hinder their ability to create sustainable communities (Holzman, 2010). Using an exploratory case study design, the study sought to expound upon current research in professional learning practices and their abilities to improve equitable teaching practices. The literature review associated with this study helped to understand inequitable teaching practices that stymie learning for students of color; ultimately affecting their abilities to prepare for future careers. Using the term CRT, coined by Ladson-Billings (2009), further investigation was performed using a needs assessment to ascertain CRT efficacy in an urban K-12 school. As defined by Ladson-Billings (2009), CRT acknowledges the need to incorporate culture (one's customary beliefs, social forms, and material traits of a racial, religious, or social group) into every aspect of learning. The needs assessment revealed teachers who had less than three years of experience felt less efficacious in utilizing CRT practices.

Based on the findings of the needs assessment, an intervention literature review was conducted to better understand how professional learning might impact teacher efficacy. Bandura's (1986) social cognitive learning theory was used as a theoretical framework to guide the direction of the intervention literature review and to help illuminate how teacher's efficacy beliefs may drive their abilities and motivations to adopt new instructional strategies. The professional learning methods which were examined included coaching, professional learning communities, and developing teachers as transformational leaders.

A portion of Chapter 3 also provided a discussion on effective professional learning practices that can be applied for both in-person and online teacher professional learning. Chapter three's literature review supplied a foundation for understanding how professional learning methods might influence teacher efficacy. The meta-analysis conducted in chapter three provided an understanding of professional learning methods that can influence equitable pedagogy efficacy. Subsequently, the term cultural relational pedagogy was coined by the researcher based on the meta-analysis findings.

An exploratory case study was proposed to develop an online professional learning course based upon cultural relational pedagogy that was reviewed by a Content Expert participant. Changes were made as needed and were reviewed by Procurer and end-user participants. The online professional learning course was grounded in adult learning theory and encouraged active engagement as recommended by Learning Forward (2011).

The professional learning course was developed online using Storyline 360. The course was also delivered and reviewed by study participants online due to COVID 19. It is important to note that this study occurred during the COVID 19 pandemic as the teachers involved in the study were likely involved in daily classroom instruction with students that were dealing with varying levels of pandemic induced trauma such as mistrust in the educational system, police brutality, and racial driven violence (Paz, 2021). As discussed in Chapter 1, students of color who attend low performing schools can experience disparities in their college and career readiness opportunities; therefore, pandemic trauma can exacerbate existing inequalities. Likewise, teachers were likely dealing with their own pandemic induced trauma in addition to adjusting to newly implemented classroom learning such as online learning, learning new

technology, and managing classroom learning and student behavior (Hamilton, Kaufman, Diliberti, 2020).

Case studies allow a researcher to examine the practices of previously conducted studies while connecting to empirical, pragmatic literature and experiments (Yin, 2018). Additionally, case studies provide the opportunity to explore evidence from multiple sources of data and evidence while examining a phenomenon holistically (Yin, 2018), and through a diversified lens (Baxter, 2010). The current study followed an exploratory case study method to understand the factors that fostered a professional learning experience designed to increase teachers' self-efficacy around equitable teaching practices. According to Yin (2018), a case study design should be considered when the researcher is exploring the *how* or *why* of a phenomenon. While the needs assessment focused on CRT, the researcher acknowledges that equitable teaching practices encompassed other pedagogies, such as multicultural education and critical pedagogy.

Therefore, a case study design was best suited for the current research to explore how an online professional learning course should be designed to improve equitable teaching efficacy based on the results of a meta-analysis and the perspectives of study participants. The guiding research questions are presented in Table 4.1.

Table 4.1 Exploratory *Case Study Research Questions*

Research Phase	Research Questions
Phase One: Document Review, Course Pre-Development, course review with Content Expert, course revision	RQ1: In what ways can the content and design be improved to convey the four components of CRP to educators based upon the Content Expert's role? (researcher document review, audit trail, semi-structured interviews with Content Expert)
Phase Two: Participant Course Review	<p>RQ2: In what ways can the content and design be improved to convey the four components of CRP to educators based upon the Procurer's and End-User's role? (Procurer and End-User online questionnaires, individual interviews, and focus group)</p> <p>RQ3: What is the role of the learning course in helping teachers implement cultural relational pedagogy? (Procurer and End-User online questionnaires, individual interviews, and focus group)</p> <p>RQ4: Which components of the learning modules were determined to be most helpful to teacher educators or trainers in understanding how to implement cultural relational pedagogy in their respective organizations? (Procurer and End-User open-ended questionnaire, interviews, and focus group)</p> <p>RQ5: In what ways do participants believe completion of the learning course could influence teacher equitable pedagogy efficacy through CRP? (Procurer and End-Users open-ended questionnaires, individual interviews, and focus group)</p>
Phase Three: Process Evaluation	RQ6: How has the program delivery adhered to or differed from the proposed objectives and implementation procedure? (researcher journal)

Research Design

According to Miles, Huberman and Saldana (2013), qualitative research can provide a deeper, richer meaning to data. Qualitative research also allows researchers to gain an understanding of those studied through narrative form, giving voice to those involved in the study (Miles et al., 2013). The researcher aimed to examine effective equitable pedagogy professional learning as a phenomenon using an epistemological approach to explore implications for practice by gaining the perspectives of study participants. Using an epistemological approach enabled the researcher to gain subjective evidence from participants of the study as an outsider by creating a trusting and engaging relationship with the study participants (Creswell & Poth, 2016).

The researcher observed participants and noted participant reactions during the semi-structured interviews and focus group in the researcher journal. Researchers who are positioned as outsiders possess an advantage of having little to no relationships with the participants, reducing the prospect of conflict and presumptions between the researcher and other participants (Labaree, 2002). Though the researcher was affiliated with the higher education institution as a doctoral candidate, the researcher was an insider only situationally and was not privy to the full functionalities and perceptions of the Content Expert, Procurers, and End-User participants within their respective professional contexts (Labaree 2002). The researcher, as an outsider to the study participants' professional context, hoped to achieve research that was transformative by detailing the story of the participants involved to achieve equitable teaching practices (Banks, 2015) that will translate into desired student outcomes in the future.

As a researcher positioned as an outsider, the choice of a qualitative study was guided by the goal of the research (Banks, 2015), which was to explore participants' perceptions of the

online professional learning course and its usefulness in helping teachers understand how to use cultural relational pedagogy within their contexts. A qualitative design was chosen to avoid a preconceived perspective, but rather followed an inductive, exploratory process to understand the participants' perspectives (Fairbrother, 2014) in designing an online learning course; therefore, attempting to close the distance between the researcher and the participants (Creswell & Poth, 2016). Additionally, the researcher's positionality included experience as an instructional designer. Instructional designer experience allowed the researcher to bring the skill and expertise to conduct the meta-analysis and use its findings to develop the professional learning online course content and design elements prior to the Content Expert review, facilitate revisions and, record participant's provide feedback on content, delivery choices, and confidence level (Ertmer & Newby, 2013).

A case study research design was chosen to allow the researcher to examine and gain an understanding of the complex nuances of professional learning methods that might influence teacher efficacy around equitable pedagogy, using cultural relational pedagogy. The case study used a conceptual framework (Figure 3) that integrated equitable pedagogy practices (e.g., Banks, 2015; Ladson-Billings, 2009; Wink, 2011; etc.), and adult learning theory (Knowles, 1968). As identified in Chapter Three, adult learning theory offered development for adults by catering to them as learners, allowing them to take responsibility for their own learning, share their professional and learning experiences, and apply learning to real life experiences (Knowles, 1968). The following further discusses the research design for this study including logic model, process evaluation, and outcome evaluation.

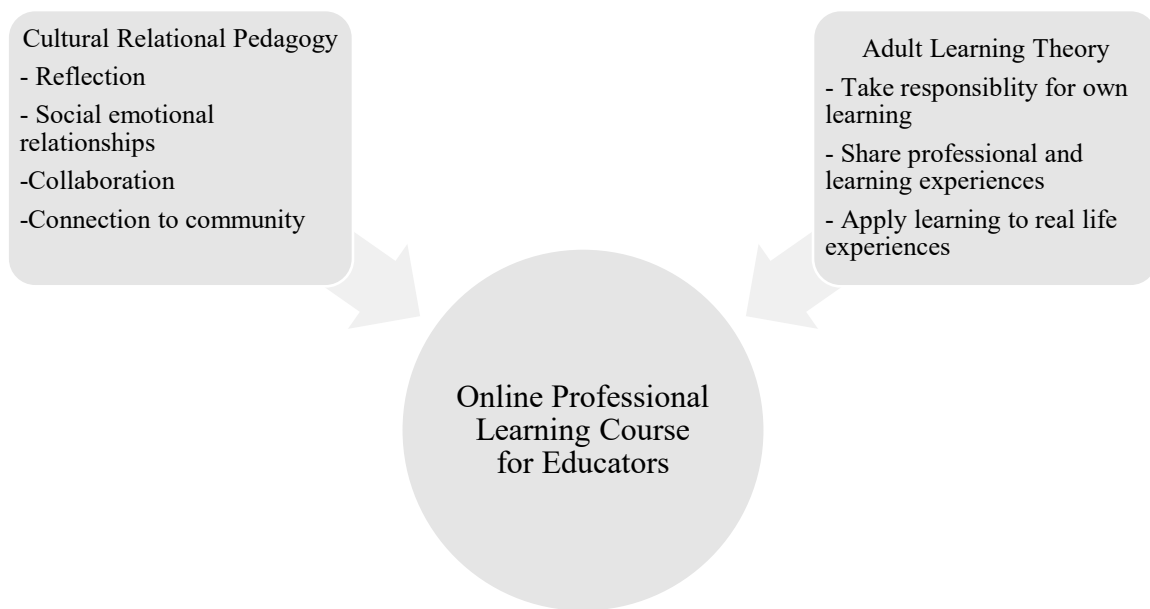


Figure 4.1 Conceptual Framework: Cultural Relational Pedagogy and Adult Learning Theory

Using the meta-analysis in chapter three, the conceptual framework constructs were developed from the data analysis (Baxter & Jack, 2010). The constructs that emerged from the meta-analysis in Phase Zero were used to drive the development of the CRP online course. The exploratory case study followed a three-phased approach to fully explicate the factors needed for creating an effective online professional learning course. Using an audit trail process, the researcher followed a systematic approach to collecting data (Creswell & Miller, 2000) from learning materials in Phase One and used the perceptions of external reviewers in all three phases to enhance the trustworthiness and credibility of the study. Phase Three also included process evaluation. Evaluation using fidelity of implementation followed a formative procedure which allowed the researcher to improve the online course content and structure according to feedback from participants for post-study use of the online course in educational settings, such as teacher preparation programs (Dusenbury, Brannigan, Falco, & Hansen, 2003) in educational

organizations. Project implementation was also evaluated to ensure the study followed the outlined procedures (Stufflebeam, 2003).

Logic Model

Logic models foretell the specifics of a study and its expected performance (McLaughlin & Jordan, 2010). The logic model, as seen in Figure 4.2 outlines the exploratory case study method approach. The logic model details the needed inputs and outputs to elucidate the “*connecting processes*,” as mentioned by Leviton and Lipsey (2007, p. 31). Inputs in a logic model should have a direct relationship to the operations or outputs of the study (Cooksy, Gill, & Kelly, 2001). The needed inputs for this study included 51 peer-reviewed articles discussing professional learning and CRT efficacy, meta-analysis findings, study participants, online module design plan, online module development platform, zoom for videoconferencing, and use of Zoom to record interviews and the focus group. The operations in the proposed intervention are highlighted in the in the outputs section (Leviton & Lipsey, 2007). The outputs section included the study’s activities and products including library search, article cross walk, cross-article comparison, meta-analysis, development of an online module, semi-structured interviews, a focus group, online open-ended questionnaires, and evaluation of the online module.

Finally, outcomes are outlined in the logic model. Outcomes are directly tied to the activities and outputs and should reflect changes that are attributed to the study (Leviton & Lipsey, 2007). The researcher’s goal was to illuminate effective equitable pedagogy professional learning practices and provide implications for designing professional learning to influence teacher knowledge. Further, the researcher hopes that the exploratory case study will spark future research around effective professional learning practices for improving equitable instructional efficacy using online platforms.

The short-term outcomes indicated researchers and educators would understand how to implement effective professional learning for increasing equitable instructional efficacy within their own contexts through use of the designed CRP course. Intermediate outcomes, not a part of this study, were that educators would implement effective equitable instructional professional learning to impact students of color preparing for college and careers. The long-term outcome that supported the need for this research is that students of color would receive equitable pedagogical teaching practices within classroom settings and ultimately feel efficacious in pursuing their college and career interests. This study focused on the short-term outcomes and if the results of this exploratory case study warrant, further research could be conducted to investigate the intermediate and long-term outcomes previously stated.

Inputs	Outputs		Outcomes-Impact		
	Activities	Products	Short	Intermediate	Long
Phase Zero: 51 peer-reviewed articles discussing professional learning and CRT efficacy Meta-analysis findings	Phase Zero: Library search, article review cross walk, cross-case comparison, meta-analysis	Phase Zero: meta-analysis	Researcher will understand effective professional learning methods for increasing teacher efficacy in cultural relational pedagogy	Educators will gain a deeper understanding of implications for effective cultural relational pedagogy professional learning needed to impact students of color preparing for college and careers	Students are engaged in equitable learning spaces using cultural relational pedagogy to help better prepare them for college and careers
Phase One: Text, videos, other learning resources; one equity/culturally responsive subject matter expert	Phase One: Review Text, videos, other learning resources, content expert interviews and questionnaires	Phase One: CRP Document review	Educators will understand effective professional learning practices that may influence efficacy around cultural relational pedagogy		
Phase Two: Two procurers, i.e., professor, district equity officer, two end users i.e. teachers in service or in training	Phase Two: Semi-structured interviews, open-ended questionnaires, focus group.	Phase Two: CRP online learning course; researcher journal, transcripts, data results from questionnaires and interviews			
Design plan	Phase Three: Process Evaluation	Phase Three: Researcher's journal transcripts, qual data results from questionnaires, interviews, and focus group			
Online course development platform					
Zoom transcription and video recording					
Phase Three: Study Evaluation					
Assumptions Participants will have the time and willingness to participate. The content expert participant has been adequately trained in equitable pedagogy in their line of work. Phase Two procurers are aware of the equitable pedagogy needs within their organizations. Phase Three end user and procurer participants will provide honest feedback. The case study will adequately gather needed data for implications.		External Factors Lack of participant willingness to provide needed feedback due to busy schedules. Participants have implicit biases that might distort their view of the professional learning.			
Context: Students of color sometimes experience inequitable instructional practices in classrooms. Needs assessment revealed teacher low self-efficacy around CRT, an equitable pedagogical practice. The development of an online professional learning course is an effort to design an effective resource that can improve teacher's ability to practice equitable pedagogy.					

Figure 4.2 Exploratory Case Study Logic Model

Process Evaluation

Program process theory allows researchers to provide a description of the program plan and its intentions or purpose (Rossi, Lipsey, & Freeman, 2004). Additionally, Rossi et al. (2004) posit program process theory questions should examine if the appropriate target population is

being reached, if the delivery of the program is consistent with program design and/or other standards, and if resources are being exhausted during the program. Process evaluation allows researchers to monitor the procedures for program implementation and maintain the fidelity of the research (Rossi, et al., 2004). Additionally, process evaluation allows a researcher to be more confident in their findings, therefore, protecting the validity of the results (Dusenbury, et al., 2003). For this study, process evaluation methods included fidelity of implementation and project implementation. Research question six, “How has the program delivery adhered to or differed from the proposed objectives and implementation procedure?” anchored the process evaluation.

Fidelity of Implementation. Fidelity of implementation during process evaluation examines if a process is being implemented as intended by the researcher (Dusenbury et al., 2003). Examining fidelity of implementation allows the researcher to examine if the intervention is adhering to the prescribed methods aligned to the theoretical framework, correct dosage and completeness, quality of delivery, participant engagement, and program differentiation, providing a distinction from other programs (Dusenbury et al., 2003). This study specifically examined quality of program delivery evaluation using a formative procedure. Formative evaluations provide data that allow the researcher to make needed improvement adjustments for future project implementation (Zhang, Zeller, Griffith, Metcalf, Williams, Shea, & Misulis, 2011).

Quality of Program Delivery. Quality of program delivery was evaluated using the activities occurring in Phase Three. Program quality is contingent upon how the program is implemented and heavily relies on the program developer’s interaction as a researcher with the program participants (Dusenbury et al., 2003). Further, Dusenbury et al. (2003) shared that the likelihood that a program can be implemented into successful practice depends on the level of

quality that the program stays consistent in meeting the intended objectives; it is critical to whether a study succeeds or fails (Dusenbury et al., 2003). The program delivery evaluation followed an audit trail process by reviewing the online course to ensure each objective was identified and discussed for all four modules and detailed the process in a researcher journal (Wolfinger, 2002). Following the audit trail process for evaluation allowed the researcher to reduce process ambiguity by documenting and clearly defining research steps (Creswell & Miller, 2000).

Additionally, in Phase Three, process evaluation addressed validity through triangulation, credibility, and member checking. Triangulation helped increase the validity of the study as well as identify areas that did or did not corroborate between the data sets (Johnson & Onwuegbuzie, 2004). Specifically, corroboration was evaluated by inspecting the qualitative data provided through the semi-structured interviews in Phase One with the subject matter expert and Phase Two with the Procurers and end-user participants through member checking. Member checking added credibility to the study. Credibility was established within the study by incorporating the thoughts and ideas of study participants to capture the “contextual complexities” (Mertens, 2013, p. 33) that should be considered during the development of the online course in all phases of the study. After the semi-structured interview recordings were transcribed, the researcher performed member checking by asking the Procurer and end-user participants to verify that the interview transcriptions and the meaning of their perspectives were accurate. Member checking with the Content Expert participant was performed by the researcher, asking if the changes to the courses had been completed in the way the Content Expert suggested.

Process evaluation occurred across phases One, Two, and Three. Phase Zero included a meta-analysis which explored previously conducted studies that were focused on improving

equitable pedagogical efficacy through professional learning and its causal effects (Yin, 2018). The findings of the meta-analysis and a document review, including an examination of learning materials, helped determine the best content to address the four components of cultural relational pedagogy through an online professional learning course. The outcome evaluation research question asked: How has the program delivery adhered to or differed from the proposed objectives and implementation procedure?

Phase One included a document review of texts, videos, and other learning materials to determine what content should be used in the development of an online professional learning course. Document reviews are useful for building theory and can establish study credibility (Bowen, 2009). The document review served as the first step in the audit trail process. The Content Expert participant-examined the document review and made resource recommendations and ensured selected resources were aligned to the outcomes of the course. The Content Expert reviewed and provided recommendations using track changes on the document review Microsoft Word document. Phase One also included pre-development of a course using an online platform. The course was developed by the researcher based on resources that supported cultural relational pedagogy and its use by educators. The Content Expert also reviewed and provided course content recommendations.

In Phase Two, the researcher used the input of the equitable pedagogy subject matter expert to make needed content changes to ensure the course was developed according to the specified course outcomes. The online professional learning course was fully developed in Phase Two. The researcher hopes the course might be used as a resource to help educators increase their equitable pedagogy efficacy by learning about cultural relational pedagogy.

In Phase Three, input was gathered from four study participants who were representative of potential Procurer participants for the completed course. Feedback from Procurer participants was documented by using an online open-ended questionnaire. The Procurer participants online open-ended questionnaire contributed towards the audit trail process. The Procurers also participated in one individual interview after reviewing all four modules. In addition, during Phase Three, five end-user participants completed the course and provided feedback. The five end-users also completed an open-ended questionnaire after completing each course module. Finally, Phase Three included fidelity of implementation evaluation (Dusenbury et al., 2003) conducted by the researcher. The three phases of the proposed study are outlined in Table 4.2.

Table 4.2 *Exploratory Case Study Research Design*

Phase Zero	Phase One	Phase Two	Phase Three
Meta-Analysis	Participant Course Review	Participant Course Review	Process Evaluation
Data Collection: 51 article reviews	Data Collection: demographic checklist	Data Collection: demographic checklist	Data Collection: n/a
	Content Expert open-ended questionnaire semi-structured interview with Content Expert	Procurer and End-User open-ended questionnaire	
	researcher journal	semi-structured interview with Procurers	
		End-User focus group	
		researcher journal	

Exploratory Case Study Methods

The study followed qualitative methods which afforded the researcher thick, rich data. Thick, rich data provided an understanding of participants' perceptions and preferences with detailed descriptions (Miles et al., 2013) of the online professional learning course. Using case study methodology (Yin, 2018), the study explored participants' perception of how the CRP course might influence their understanding of CRP and how to implement equitable pedagogy through CRP in their contexts. The following section provides a description of the study participants, measures, and procedure.

Participants

To understand the results as it relates to each participant, this section presents demographics for the participants. The demographic data helps provide useful information for the context of the participants as it relates to the findings of the study. This study involved three types of participants including one Content Expert, two Procurers, and two End-Users. Each study phase included a unique set of participants. The total amount of participants recruited was eleven ($n=11$). However, only five ($n=5$) completed the consent process and were eligible to participate in the study.

In Phase One, there was one participant: the Content Expert. In Phase Two, there were two Procurer participants and two end-user participants. The following details the study participants. The Content Expert, Procurers, and end-user participants were affiliated with the same higher education institution. The online professional learning course could be used in different school systems; however, the participants were recruited from one higher education institution to create a homogenous sampling. Homogenous sampling can be used with purposeful sampling and allows the researcher to select participants who are members of a

subgroup with specific qualities (Creswell & Plano-Clark, 2011). The specific quality of the selected participants was that each participant was affiliated with the same private research university in the mid-Atlantic area. The university has several teacher education pathways at the undergraduate, graduate, and doctoral levels. These pathways made the participants a good fit for this study.

Each participant role holds its own competencies, tasks, and time commitment in the study (Table 4.3). The Content Expert, Procurers, and end-users were asked to verify they met each competency by affirming they met the criteria via email. The name of the participants is not disclosed in the study. The professional context of the participants is described in this study, but not fully disclosed.

Phase One Participant. The Content Expert was purposefully selected (Patton, 1990) and met the educational and professional experience criteria for the Content Expert participant role. The Content Expert was recruited by the researcher directly asking them to participate.

As identified by the demographic checklist, the Content Expert identified as a Black female, age 50, located in Baltimore, MD. and is an Associate Professor. The Content Expert has a doctorate in education and has published scholarship in the domain of equitable pedagogy, taught related courses, was a published researcher, and has over 28 years of teaching experience including K-12 and higher education.

Phase Two Participants. Snowball sampling, a type of purposeful sampling, was used by the Content Expert to identify the Procurer participants. Snowball sampling can be beneficial for theory-building studies, according to Miles, et al. (2014). Purposeful sampling was useful for the current study as it allowed the researcher to identify participants that could produce a confident generalization of a larger population (Patton, 1990). The Procurer Participants were

recommended by the Content Expert. However, the researcher performed full recruitment by sending email invitations to each Procurer participant. The recruitment goal for the Procurer Participants was four ($N=4$). Two Procurer participants agreed to participate in the study ($N=2$).

Eligible participants for Procurers included two educators within the same higher education institution as the Content Expert. The Procurer participants, recruited through snowball sampling (Miles, et al., 2014) worked as faculty members and held advanced degrees. The Procurer participants were responsible for procuring curriculum, training, or resources to provide developmental enrichment for educators within their professional context. Each Procurer participant had extensive research and instructional experience in urban education, social equity, and/or teacher quality.

As identified by the demographic checklist, Procurer A identified as a Latina-Cuban female, age 45, located in Washington, D.C. and was an Assistant Professor. The highest level of education for Procurer A was a PhD. Procurer B identified as a White male, age 53, located in Baltimore, MD. and was an Assistant Professor. The highest level of education for Procurer B was a PhD.

The End-User participants were recruited through snowball sampling through assistance from the Procurers. The medium for recruitment of the End-Users included dissemination of the recruitment flyer via email and the School of Education Newsletter facilitated by Procurer B. Procurer A did not agree to participate in End-User participant recruitment.

The recruitment goal for End-Users was five participants that were in-service or pre-service teachers. End-user participants, recruited through snowball sampling (Miles, et al., 2014) were teachers and/or teachers in training affiliated with the same higher education institution as

the Content Expert and Procurer participants. There was no set age, gender, or length of teaching experience needed to be an end-user. Two End-Users participated in the study ($N=2$).

The End-User participants were both K-12 teachers. End-User A had a total of 14 years of teaching experience. For the first 11 years of teaching, End-User A taught in an urban, predominantly Black school in Virginia, and then in various rural districts outside of the United States. End-User A identified as an African American, female age 39. The highest degree attained by End-User A was a master's degree. End-User A was pursuing her doctoral degree.

End-User B had a total of 22 years of teaching experience and taught in a rural, predominantly White school district in Michigan. End-User B identified as a White female, age 43. The highest degree attained by End-User B was a master's degree, End-User B was also pursuing her doctoral degree.

Table 4.3 *Exploratory Case Study Participant Demographics*

Participant Role	Race (as identified by participant)	Age	Gender (as identified by participant)	Highest Degree Attained	Years of Teaching Experience (End-Users)
Content Expert	Black	50	Female	Ed.D.	-
Procurer One	Latina-Cuban	45	Female	Ph.D.	-
Procurer Two	White	53	Male	Ph.D.	-
End-User One	African American	39	Female	M.Ed.	14
End-User Two	White	43	Female	M.Ed.	22

Measures

Document Review. The document review was conducted by the researcher. The document review included a review of learning materials to determine the best content fit and to establish study credibility (Bowen, 2009) for the online professional learning course. The researcher used a Microsoft Word document to notate materials that were reviewed for course development including texts, videos, and other learning materials. The document review served

as the first step in the audit trail process (Creswell & Miller, 2000). The Content Expert participant examined the document review and made recommendations for additional resources and to ensure selected resources were aligned to the outcomes of the course. The Content Expert reviewed and provided recommendations using track changes on the document review Microsoft Word document in Phase One.

Content Expert Open-Ended Questionnaire. The Content Expert questionnaire (Appendix C) was used to gather the thoughts and perspectives of the Content Expert participant (Creswell & Poth, 2016; Marshall & Rossman, 2011) in Phase One. The Content Expert feedback questionnaire was used to guide the semi-structured interviews with the Content Expert. The Content Expert completed the expert questionnaires online.

Procurer Open-Ended Questionnaire. The Procurer expert questionnaire (Appendix D) was used to gather the thoughts and perspectives (Creswell & Poth, 2016; Marshall & Rossman, 2011) of the Procurer participants about the online course. The Procurer questionnaires were used to guide the individual semi-structured interviews with the Procurers in Phase Two. The Procurer completed the Procurer questionnaires online.

End-User Open-Ended Questionnaire. The end-user questionnaires (Appendix E) were used to gather the thoughts and perspectives (Creswell & Poth, 2016; Lochmiller & Lester, 2017; Marshall & Rossman, 2011) of the end-user participants regarding the content and their understanding of the course. The end-user open-ended questionnaires guided the focus group discussion. The end-users completed the end-user open-ended questionnaires online.

Semi-Structured Interviews. The semi-structured interviews with the Content Expert and Procurer participants were developed based upon the responses of participant open-ended questionnaires (Norton, 2013). The semi-structured interviews with the Content Expert took

place after reviewing each module, for a total of four semi-structured interviews. The semi-structured interviews with the Content Expert were used to discuss the document review and the course content.

The Procurer semi-structured interviews took place after the Procurer had reviewed all four modules in Phase Two. There was a total of one interview per Procurer, for a total of two Procurer interviews. The semi-structured interviews with the Procurer were guided by the Procurer open-ended questionnaire and were used to discuss the thoughts and perceptions of the Procurer (Creswell & Poth, 2016; Lochmiller & Lester, 2017; Marshall & Rossman, 2011). The semi-structured interview with the Content Expert and Procurers took place using Zoom.

Focus Group. The focus group with the two End-User participants occurred in Phase Two (Appendix F). The online focus group occurred once, using Zoom. The end-user open-ended questionnaires were used to help guide the focus group discussion. Using a focus group as a follow up to the end-user open-ended questionnaire allowed the researcher to gain details about the experience of the end-user participants (ACET, 2011) as it related to completing the online course. The focus group took approximately 90 minutes.

Demographic Checklist. A demographic checklist (Appendix G) was used to gather information about participants. The demographic checklist included participant age, gender, ethnicity (race), level of education, employment position, years in professional positions, and geographical data. The demographic checklist template can be found in Appendix G.

Researcher Journal. A researcher journal was used to document field notes. Field notes help to eliminate assumptions made by the researcher and connect to the participants in the study (Wolfiger, 2002). The field notes documented the reactions of participants during interviews and the focus group. The researcher journal was an integral part of the audit trail

process to account for the steps taken during the process of the research study (Creswell & Miller, 2000). Further, use of the researcher journal assisted the researcher to lessen the possibility of presumptions by noting participants' reactions (Labaree, 2002).

Course Modules. The course included four modules that discussed cultural relational pedagogy and its four factors: (a) reflection, (b) social-emotional relationships, (c) collaboration, and (d) community involvement based on the four emerging factors derived from the meta-analysis. Each module included an outline of the module, learning resource content, including text, activity, or video, a summary, reflection, and assessment exercise (Pappas, 2016). Additionally, the modules were interactive, linked theory to practice, and were based on the needs of adult learners (Pappas, 2016). An example of the course module objectives is outlined in Table 4.4. The objectives were finalized after the document review was completed and agreed with the Content Expert recommendations.

Table 4.4 Cultural *Relational Pedagogy Course Module Objectives*

Module	Objectives
Module One: Reflection	<p>The learner will:</p> <ul style="list-style-type: none"> • Understand a definition of reflection and its role in cultural relational pedagogy • Understand how self-reflection can be biased and how to work through extinguishing implicit biases • Reflect on past interaction with students and develop positive relationships with them
Module Two: Social-Emotional Relationships	<p>The learner will:</p> <ul style="list-style-type: none"> • Understand a definition of social-emotional relationships and its role in cultural relational pedagogy • Understand how to use social-emotional relationships to connect with students and provide individualized support for learning • Understand how to develop social emotional relationships with other teachers to share and receive support

Module	Objectives
Module Three: Collaboration	<p>The learner will:</p> <ul style="list-style-type: none"> • Understand a definition of collaboration and its role in cultural relational pedagogy • Understand the connection between social emotional relationships with other educators and collaboration – motivation • Understand how collaboration influences teacher work • Understand the advantages of developing collaborative relationships with students to meet student cultural and learning needs
Module Four: Connection with Community	<p>The learner will:</p> <ul style="list-style-type: none"> • Understand how community involvement plays a role in cultural relational pedagogy • Understand how to connect knowledge about students' communities to culture and classroom • Understand how to learn and develop relationships with student communities

Procedure

In Phase Zero, the meta-analysis took place over the course of four weeks. The purpose of the meta-analysis was to research previously conducted studies around professional learning practices and equity pedagogy. The findings of the meta-analysis helped identify key professional learning methodological factors that contributed to equity pedagogy efficacy. Factors identified in the meta-analysis were used to guide the development of an online learning module that might be used as a CRT resource for educators.

Data collection began with the researcher conducting a database search using key terms to find original, peer-reviewed studies including possible combinations of the culturally responsive context using critical pedagogy, OR culturally relevant instruction, OR multicultural education, OR cultural responsiveness, AND teacher efficacy, AND professional development. Databases were used that included topics such as education, social sciences, and psychology. The databases were also searched for peer-reviewed articles, interventions, or dissertations

published between 2010 to 2020. All studies had to be facilitated with a goal to effect teacher efficacy in CRT and the population had to work with students of color. The initial search yielded 51 articles. Using the inclusion criteria, the researcher reviewed the study's title and abstract to determine eligibility for the current study. Next, the introduction, methods, and population were reviewed to further evaluate inclusion in the study, which left 24 articles for further review. After reviewing the remaining 24 articles, more articles were eliminated because they did not meet the criteria of studies using professional learning that sought to influence culturally responsive efficacy for teachers. The remaining six articles were used to review for the final analysis and findings of the meta-analysis. The results of the meta-analysis guided the development of the online learning course.

Exploratory Case Study. The exploratory case study consisted of the development of an online professional learning course that could serve as a resource for educators. The development of the course was guided by a document review (Creswell & Miller, 2000) of learning materials and the Content Expert provided course design feedback. The researcher revised the course according to the Content Expert's recommendations. The online professional learning course was then reviewed by the Procurer and end-user participants. As identified in the logic model (Figure 4.2), the development and participant review of the course took place across Phases One and Two. Each participant played a specific role in reviewing the course according to their professional contexts. The following outlines the three phases of the professional learning program development.

Phase One. Phase One of the study included a document review to determine the best resources that were needed to develop the online learning course such as videos, script, and other learning resource materials. The document review (Bowen, 2009) served as a roadmap for

developing the pre-development of an online course. The observer participant shared the document review electronically with the Content Expert to allow the Content Expert to provide feedback via a password protected One Drive document. The online course lasted no longer than 80 minutes. Each module took no more than 20 minutes to complete. Online courses could help the learner retain more information and maintain their commitment for completion if the online learning took place between 5 to 20 minutes (Winstead, 2020).

The researcher developed the course using Articulate Storyline 360. Articulate Storyline 360 is an online platform that is used to develop interactive courses and provides access to over 7 million templates, photos, characters, videos, and icons (Articulate Global, 2021). After the document review (Bowen, 2009) and conferral with the context expert the online CRP course was fully developed. Development of the course took four weeks. The Content Expert reviewed each module. Upon the Content Expert reviewing the content of each module, the researcher sent the Content Expert an open-ended questionnaire (Norton, 2013) for the Content Expert to complete after each module.

Modules. The online course was comprised of four modules that discussed cultural relational pedagogy and its four factors: (a) reflection, (b) social-emotional relationships, (c) collaboration, and (d) community involvement based on the four emerging factors derived from the meta-analysis. Online learning courses should include learning objectives and goals, visual stimuli, relevant content and activities, assessments, and a feedback system (Pappas, 2016). Each module contained (a) a module outline including objectives; (b) learning resource content including text, activity, and/or video; (c) a summary; (d) a reflection; and (e) an assessment or exercise (Winstead, 2020). Course feedback was provided through the Content Expert's semi-structured interviews and Content Expert's open-ended questionnaires in Phase Two, the

Procurers open-ended questionnaires and Procurers semi-structured interviews in Phase Three, and the end-user questionnaires (Creswell & Poth, 2016; Marshall & Rossman, 2011) and end-user focus group (ACET, 2011) in Phase Three.

The Content Expert reviewed the course to further determine whether the content was a good fit for the course, according to the scope and outlined outcomes of the course (Pappas, 2016). The Content Expert review process took place over four consecutive weeks. The researcher allotted five days for expert review for each module. The Content Expert completed an open-ended questionnaire (Creswell & Poth, 2016; Marshall & Rossman, 2011) after reviewing each module. On the sixth day of each week, the researcher conducted a recorded interview using Zoom for videoconferencing and transcription (Creswell & Poth, 2016) with the subject matter expert. Content changes to the course were made by the researcher following an iterative, instructional design process (Pappas, 2016) and noted in the researcher journal. Content changes were not made that were out of the scope or objectives of the course, which was agreed upon by the researcher and the Content Expert. Namely, the researcher and Content Expert agreed not to make content changes that include instructional strategies for practicing equitable pedagogy that were not found in the meta-analysis. The researcher explained the parameters for reviewing the course. The parameters for reviewing the course consisted of reviewing for flow, interaction, and ensuring the objectives had been addressed within the course (Pappas, 2016). The Content Expert provided feedback using the Content Expert open-ended questionnaire. The Content Expert open-ended questionnaire guided the semi-structured interviews after each module review.

Phase Two. During Phase Two, the two Procurer participants reviewed the online professional learning course. The Procurer participants were asked to review one module per

week and complete the Procurer online open-ended questionnaire (Norton, 2013) after reviewing each module. The Procurer review process took place over four consecutive weeks. The researcher allotted five days for Procurer reviews for each module. The Procurers completed the Procurer online open-ended questionnaire after reviewing each module. After the four-week review by Procurer participants, participants engaged in one individual interview. The researcher conducted a recorded interview using Zoom for transcription and videoconferencing (Creswell & Poth, 2016) with each Procurer. All four Procurer interviews took place within one week of completing all four module reviews.

Additionally, in Phase Two, the two end-users completed the online course and the end-user online open-ended questionnaire. End-user course reviews took place over a period of four consecutive weeks. A focus group was conducted to elicit the thoughts and perspectives of the end-users about the course after the four-week review. The researcher conducted a recorded focus group using Zoom for videoconferencing and transcription (Creswell & Poth, 2016). Focus groups are traditionally facilitated face to face. However, leveraging technology to conduct focus groups has been found to provide increased opportunity for research recruitment, lower attrition rates, and high reliability due to the ability of participants to react and interact the same as face-to-face focus groups (Stewart & Shandasani, 2017). The use of online focus group facilitation has been also supported by Turney and Pocknee (2004); the authors asserted advantages could include greater capability around scheduling participants with compacted schedules or experience health-related issues. Limitations to online focus groups' use can be related to internet connectivity or computer literacy (Turney & Pocknee, 2004); however it was not an issue in this study.

Timeline. The meta-analysis data collection and analysis spanned a period of four weeks, during Phase Zero. Participant recruitment took place for two weeks as each phase of the research occurred. The online course pre-development occurred over four weeks (Phase One). The course was further developed with the Content Expert over four consecutive weeks (Phase One). The Procurers reviewed and provided feedback using an online interview open-ended questionnaire over consecutive weeks and participated in one individual interview (Phase Two). End-users reviewed the course over a consecutive four weeks and completed an open-ended questionnaire at the end of each week. End-Users participated in a focus group after completing the four-week review of the course (Phase Three). Table 4.5 provides an overview of the case study timeline. Each phase of the study was implemented following an audit trail process to ensure quality of program delivery (Dusenbury et al., 2003).

Phase One. During Phase One of the study, the researcher sent a document review to the subject matter expert for recommendations on February 22, 2021. The document review consisted of a list of learning resources to be included in the pre-developed online professional learning course created by the researcher. The Content Expert reviewed and provided recommendations to the document review using track changes and returned to the researcher on March 1, 2021. Upon receiving the document review (Bowen 2009) with recommended changes from the Content Expert, the researcher revised the pre-developed professional learning course.

During Phase One of the study, the researcher and the Content Expert engaged in four weeks of the study which included the Content Expert reviewing one module per week, completing four online questionnaires, and four individual interviews. Each Monday, beginning March 15, 2021, the researcher submitted a unique course link for Content Expert review. The subject matter expert was asked to review each module for content and design. The weekly

Content Expert online questionnaires served as a means for the Content Expert to record initial thoughts about the course. Google forms was used to collect data for the online questionnaire. The weekly individual interview allowed the Content Expert to further explain perceptions about the course. Weekly interviews were video, and audio recorded and transcribed using Zoom. The researcher performed member checking (Johnson & Onwuegbuzie, 2004) by sending a list of recommended revisions each Monday following the interviews for the Content Expert to ensure accuracy. The Content Expert reviewed recommended revisions list and responded by the next day with any corrections. The researcher then spent the remaining of each week revising the modules according to the Content Expert's recommendations, following an iterative, instructional design process (Pappas, 2016) to ensure all changes were made prior to the Procurer and End-User review of the course. The four weeks of Phase One of the study with the Content Expert overlapped with Phase Two. Phase Two began at the beginning of the third week of Phase One. The following details the study in Phase Two with the Procurer and End-User participants.

Phase Two. Phase Two of the study consisted of the Procurer and End-User participants' review of the four modules found in the online course. In addition to reviewing the modules, the End-Users completed all activities and quizzes found within the modules. Each week, beginning March 29, 2021, for Procurer participants and April 5, 2021, for the End-User participants, the researcher sent a unique link with access to the online course via email and one to access an online questionnaire to coincide with each module. After four weeks of review with the Procurers, each procurer participated in an individual interview with the researcher. After four weeks of review with the End-Users, the End-Users participated in a focus group with the

researcher. Both individual interviews and the focus group were voice and video recorded and transcribed using Zoom.

Table 4.5 *Exploratory Case Study Overview and Timeline of Study*

Date	Strategy	Data Collection
July 1, 2020 – August 31, 2020	Meta-analysis (Phase 0)	24 peer reviewed articles
February 15	Researcher sent recruitment email to Content Expert via email	n/a
February 22, 2021- March 14, 2021	Document Review and revisions to pre-developed course (Phase One)	n/a
February 25, 2021	Researcher sent recruitment email to potential Procurer participants via email. Deadline for potential Procurer response to recruitment was March 11, 2021.	n/a
March 12, 2021	Researcher asked Procurers to share recruitment flyer via email and newsletter. Deadline for End-Users was March 26, 2021.	n/a
March 15 – April 9, 2021	Content Expert course review (Phase One) Researcher completed module revisions according to Content Expert recommendations	Demographic checklist, weekly open-ended questionnaire, guided discussion recorded and transcribed via Zoom; researcher journal
March 29, 2021 – April 23, 2021	Procurer participant course review and online questionnaire completion (Phase Two)	Demographic checklist, Procurer weekly online questionnaire, researcher journal
April 26, 2001 - April 27, 2021	Procurer participant individual interviews with researcher	Interview recorded and transcribed via Zoom
April 5. 2001 – April 30, 2001	End-User participant course review and online questionnaire completion (Phase Two)	Demographic checklist, End-User weekly online questionnaire, researcher journal
May 1, 2021	End-User focus group	Interview recorded and transcribed by Zoom, researcher journal
May 3, 2001 – May 14, 2001	Evaluation (Phase Three)	n/a

Data Collection. This study examined content of an online professional learning course that could contribute to knowledge and understanding of equitable pedagogy through use of CRP. Data collection in all three phases took place using the perspectives of participants. An audit trail process was used to help support the validity of the study, by helping to establish trustworthiness of the data collection and analysis process (Creswell & Miller, 2000). Each data collection phase was documented by the researcher in a researcher journal to document details of the study (Wolfinger, 2002). Data collection measures included a meta-analysis in Phase Zero prior to implementation of the study.

In Phase One, the researcher reviewed materials for use of the online course using a document review (Bowen, 2009) form and completed a pre-development of the course. Four semi-structured interviews were completed, guided by open-ended questionnaires with the Content Expert. In Phase Two, data collection consisted of individual interviews (Creswell & Miller, 2000; Yin, 2018) and online questionnaires completed with the Procurers and a focus group with end-users. The consent form for the Content Expert, Procurers, and end-users can be found with the open-ended questionnaires corresponding to each study participant in in Appendix C, D, and E.

Phase One. Phase One of the study included a document review of the study and pre-development of the course. The researcher reviewed learning materials and documented the sources in a Word document. The Word document listed all sources reviewed, module use, and sources determined to be unsuitable for usage in the course. Phase one also included semi-structured interviews with the Content Expert to discuss how well the content was a fit for the course.

Phase Two. In Phase two Procurers were interviewed to gain their overall perception of the course and how the course might be used within their organization. An open-ended questionnaire was used to help guide the discussion with the Content Expert. Case studies that involve individual interviews allow the researcher to capture the perspectives of the participants and their perspectives (Yin, 2018). The purpose of the semi-structured interviews was to gather the thoughts of educators within their professional context regarding the online learning module design. Qualitative interviews allowed the researcher to collect the experiences, perceptions, and beliefs (Miles, et al., 2013, p. 11) of the population being examined.

An online open-ended questionnaire was used to gather feedback from Procurer participants. The participants were also asked to complete the open-ended questionnaire after reviewing each module. The following were a sample of the Procurer open-ended questionnaire questions:

- What role do you believe the module might be used to train teachers?
- In what ways do you believe the online module may influence teachers' efficacy in cultural relational pedagogy?

Phase Two of the study also included a focus group discussion with two End-Users of the online course. Data were collected using an online end-user open-ended questionnaire to obtain immediate feedback for all four modules of the CRP course. The focus group discussion concentrated on participants' perception of the online course. The purpose of the focus group was to understand how the online course may have influenced participant knowledge of cultural relational pedagogy, how they believed the online course might be used as a resource within their organization, and how the course might have developed their cultural relational efficacy.

Open-ended questionnaires guided the focus group discussion. Predetermined focus group questions were as follows:

- In what ways did the online course influence your knowledge of equitable pedagogy efficacy?
- In what ways do you believe the online course could be used as a resource within your educational organization?
- In what ways do you believe the online course influenced your efficacy in equitable pedagogy?
- Which component(s) of the learning module were most helpful in developing cultural relational pedagogy?

Demographic Checklist. A demographic checklist was used to gather participant information including age, gender, ethnicity, level of education, employment information, years in professional position, and geographical data.

Researcher Journal. A researcher journal was used to document participant reactions, allowing the researcher to eliminate researcher assumptions (Wolfinger, 2002). The researcher journal was also used by the researcher as prescribed in an audit trail process by documenting the methodology of the research study (Creswell & Miller, 2010).

Data Analysis

Data collected through individual interviews and the focus group were recorded and transcribed. The researcher reviewed the transcriptions using inductive descriptive coding. Inductive coding has been noted by Miles, Huberman and Saldana (2014) as more empirically grounded and allowed researchers to discover pertinent research factors rather than focusing on predeveloped fixed factors. Once codes were determined, the data were analyzed to highlight

emerging themes using clustering (Miles, Huberman, & Saldana, 2014). Clustering according to Miles, Huberman, and Saldana (2014), allows the researcher to make inferences and draw a conclusion by placing the data into relevant response displays so that comparison between responses and participants can be distinguished and further analyzed. Audio recordings were saved until the end of the study and then deleted to protect the anonymity of participants. Emergent coding was used to analyze transcribed recordings and researcher notes to highlight appropriately the voices of the participants (Miles et al., 2013). The qualitative data analysis was used to answer the research questions.

The following chapter provides a detailed analysis and results of the study including interviews, one focus group, and online questionnaires. Using an audit trail process (Wolfinger, 2002), the process of the development phase of the online module and interviews with the Content Expert is discussed. Then an analysis and findings of the participant feedback including the Content Expert, Procurers, and End-Users is provided. Finally, the study concludes with a discussion and implications. A data collection matrix can be found in Appendix H.

Chapter 5: Exploratory Study Research Findings

This chapter discusses the results, findings, and conclusions from this exploratory case study. The study aimed to explore and highlight the voices of the study's participants and their perceptions of the Cultural Relational Pedagogy (CRP) Professional Learning Course, an online course developed by the researcher. As identified in Chapters 3 and 4, the professional learning course included four modules. The four modules discussed CRP by its four respective components: reflection, social-emotional relationships, collaboration, and connection to community. The course was developed to support teachers' knowledge and understanding of CRP in hopes of increasing their use of CRP within their context. The first section of this chapter discusses process of implementation. Then the empirical findings are presented by research question. Finally, the recommendations and limitations of the study are discussed.

The study was designed to answer the following research questions:

RQ1: In what ways can the content and design be improved to convey the four components of CRP to educators based on the Content Expert's role?

RQ2: In what ways can the content and design be improved to convey the four components of CRP to educators based on the Procurer's and End-User's role?

RQ3: What is the role of the learning course in helping teacher educators or trainers conduct sessions designed to help teachers implement cultural relational pedagogy?

RQ4: Which components of the learning modules were determined to be most helpful for teachers in understanding how to implement cultural relational practices in their respective organizations?

RQ5: In what ways do participants believe completion of the learning course could influence their equitable pedagogy efficacy through CRP?

RQ6: How has the program delivery adhered to or differed from the proposed objectives and implementation procedure?

Process of Implementation

The exploratory case study took place between February 22, 2021, and May 5, 2021. The exploratory study was implemented in three phases. Phase One consisted of a document review and a review of the four modules that comprised the online professional learning course by the Content Expert. Phase Two included course module reviews by Procurer participants and review and completion of the modules by End-User participants. Phase Three included an evaluation of the study conducted by the researcher. This section discusses the process of implementation by providing a brief overview of the CRP Online Professional Learning Course that was reviewed by the study's participants to provide context to the study as it relates to participant activities within the study. Then each phase of implementation is explained.

Cultural Relational Pedagogy Online Professional Learning Course

The CRP course included an introduction to CRP and four modules. The four modules discussed reflection, social emotional relationships, collaboration, and connection to community that are the four components of CRP. Each module included text, videos, and/or a practice exercise. Each module was concluded with cultural relational pedagogy theory to practice recommendations, resources, and glossary terms.

Module One: Reflection. Module One of the Cultural Relational Pedagogy Professional Learning Course included a discussion of the use of reflection to practice CRP. The reflection module discussed reflection from the aspect of teachers reflecting on their own implicit biases, their current equitable pedagogy practices, and determining opportunities for improvement.

Course users engaged in practice exercises that asked them to answer reflection questions according to their own contexts. The objectives of Module One were:

- Understand reflection as it relates to CRP
- Identify ways that self-reflection can be biased and ways to work through extinguishing implicit biases
- Reflect on past interactions with students and identify ways that positive relationships can be formulated

Module Two: Social Emotional Relationships. Module Two of the course included a discussion of social emotional relationships as it relates to CRP. The course suggested social emotional relationships should be established between teachers and students to embrace diversity and provide an equitable learning environment. The course also suggested developing social emotional relationships between teachers by practicing emotional intelligence. A video embedded in the module discussed physiologically occurs in the brain when people feel accepted and included in group settings. Also, social emotional relationships framework was presented to further illustrate methodologies for incorporating social emotional relationships. The practice exercise in Module Two included reviewing five competencies and writing a plan for incorporating social emotional relationships through CRP within the user's context. The objectives of Module Two were:

- Understand social emotional relationships and its role in CRP
- Develop a plan for using social emotional relationships to connect with students and provide individualized support for learning within your context
- Formulate ideas for developing social emotional relationships with other teachers to share and receive support

Module Three: Collaboration. Module Three of the CRP course discussed connections between social emotional relationships and individual's abilities to collaborate when they feel accepted in a group. Module Three also discussed the benefits of collaboration including less cognitive load, innovation, positive work environment, and increased teacher capability. Teachers were encouraged to initiate collaborative practices with students by formulating authentic relationships and with other teachers by sharing and receiving information. The practice exercise asked teachers to create a plan for facilitating collaborating through cultural relational pedagogy with students and teachers by developing positive interracial relationships, interactions that embrace diverse backgrounds, and integrating relevant personal experiences in classroom curriculum. The objectives for Module Three included:

- Understand the role of collaboration and CRP
- Identify connections between social emotional relationships with other educators and collaboration
- Identify ways that collaboration influences teacher work
- Identify advantages of developing collaborative relationships with students
- Identify ways that collaborative relationships with students can enable teachers to understand student cultural learning needs

Module Four: Connection to Community. Module Four discussed incorporating student cultural backgrounds to bridge student's ecosystems with classroom learning. Teachers were encouraged to connect their learning about CRP, reflection, teacher/student social emotional relationships, and collaborations to formulate a pre-plan for how they will work with their teacher teams to connect with students' communities. The module presented examples of two school districts connecting to student's communities through family engagement and

strategic community partnerships. The final exercise involved teachers developing a preplan for how they will work with their teacher teams to incorporate CRP by connecting to their communities using the previously discussed modules as a guide. The objectives of Module Four included:

- Understand how connection to community plays a role in cultural relational pedagogy
- Identify ways to develop relationships with student families to build a bridge between student communities and classroom learning
- Identify ways to connect with student's community through partnerships and relationships building

Each phase of the study followed an exploratory case study approach. Following an exploratory case study approach enabled the researcher to determine how well the online professional learning course might support teachers as they practice equitable pedagogy practices such as cultural relational pedagogy. Exploring evidence from multiple sources of data allowed for a diversified lens (Yin, 2018) to examine how the online professional learning course should be developed to best support teachers. Likewise, following a case study method provided data that assisted the researcher in understanding the participants' perceptions (Cousin, 2005) of the CRP online course.

As suggested by Dusenbury, Brannigan, Falco, & Hansen (2003), the researcher followed a formative procedure to improve the online course content according to feedback from the Content Expert participant in the Phase One. Weekly completion of online questionnaires and interviews with the Content Expert and researcher provided direction for revising the course.

The researcher revised all four modules of the CRP online course according to feedback data from the Content Expert.

Project implementation was also evaluated to ensure the study followed the outlined procedures (Stufflebeam, 2003). Examining fidelity of implementation allowed the researcher to examine if the study adhered to the prescribed methods, ensures participant engagement, and quality of delivery (Dusenbury et al., 2003). The researcher followed the prescribed methods by making interview and focus group appointments and providing an activities schedule for all participants involved. All appointments and activities were executed within the scheduled timeframes. Additionally, 100% of the participants that agreed to participate in the study provided feedback with the specified time allotment.

Qualitative Analysis

Emergent coding and thematic analysis (Miles et al., 2013) of the qualitative data collected through individual interviews and a focus group presented central themes within the data. Two themes emerged for the online questionnaires and the interviews with the Content Expert included content recommendations and design recommendations. Four themes emerged in the data for the Procurer and End-User online questionnaires and interviews including role of the course to help teachers implement cultural relational pedagogy, components most helpful to help teachers understand how to implement cultural relational pedagogy, areas of improvement, and efficacy. The End-User data had one additional emerging theme, ways the course could be useful within schools. The following section presents a discussion of the themes that emerged from the Content Expert interviews, Procurer interviews, End-User focus group, and online questionnaires. Then the data is presented according to thematic categories. The emerging themes and their respective codes are presented in Figure 5.1.

The first cycle coding included creating a matrix display to find the initial summary of segments of data using holistic coding to categorize data as the researcher was aware of the main idea of the study (Miles, Huberman, & Saldana, 2014). The main idea of the study was to receive feedback of the course from each participant.

Content Expert Data Analysis. After reviewing the Content Expert interviews and online questionnaires, the researcher found that all data could be holistically categorized into two areas. The two categories were content recommendations and design recommendations.

To perform second round coding, the researcher relied on an inductive coding process (Miles, Huberman, & Saldana, 2014), allowing the codes to emerge during data collection. Pattern coding was performed by using the explanatory codes that emerged from the segments of data (Miles, Huberman, & Saldana, 2014) from the Content Expert interviews and online questionnaires. By reviewing the segments of data in the two categories including content recommendations (CR) and design recommendations (DR), the researcher looked for commonalities among words and phrases to develop the pattern codes. The second-round pattern codes that emerged under the content recommendations (CR) category were stronger content connections to CRP and instructional designer bias. The second-round codes that emerged under the design recommendations (DR) category were improve voice over and improve format.

Procurer and End-User Analysis. After reviewing the Procurer and End-User online questionnaires, individual interviews, and focus group, the researcher found that all data could be categorized into four holistic categories for the Procurer participant data. The Procurer holistic categories were role of the course in teacher context (RC), components most helpful to implement CRP (COMP), areas of improvement (IMPROV), and teacher efficacy (EFF). The resulting pattern codes for the Procurer data under RC were baseline knowledge, application of

CRP, safe space to think about feelings, and teacher preparation programs. The pattern codes under COMP were reflection/journaling, videos, glossary, resources, and practice exercises. Pattern codes under the IMPROV category were improve voice over, less content and more reflection, and add more concrete strategies. Finally, two pattern codes were found under EFF including helps examine own beliefs and teacher collaboration.

Online questionnaires and the focus group provided data for the End-User participants. The holistic emerging codes from the End-User participants included role of the course in teacher context (RC), components most helpful to implement CRP (COMP), areas of improvement (IMPROV), teacher efficacy (EFF), and use of course for school staff (SCHUSE). The pattern codes under RC were monthly professional learning and specified teacher collaboration time. Under the COMP category, the pattern codes were reflection, practice exercises, and strategy plans. The pattern codes under IMPROV were add quizzes at end of each module, ease of use when returning to course, and end of course quiz. The EFF category included offers continuous improvement, and opportunities for collaboration. And finally, the SCHUSE category included new teachers, teachers with moderate experience as a refresher, teachers with long term experience as a refresher, teacher leaders, and teacher normally exempt from training (e.g. P.E or Music teachers).

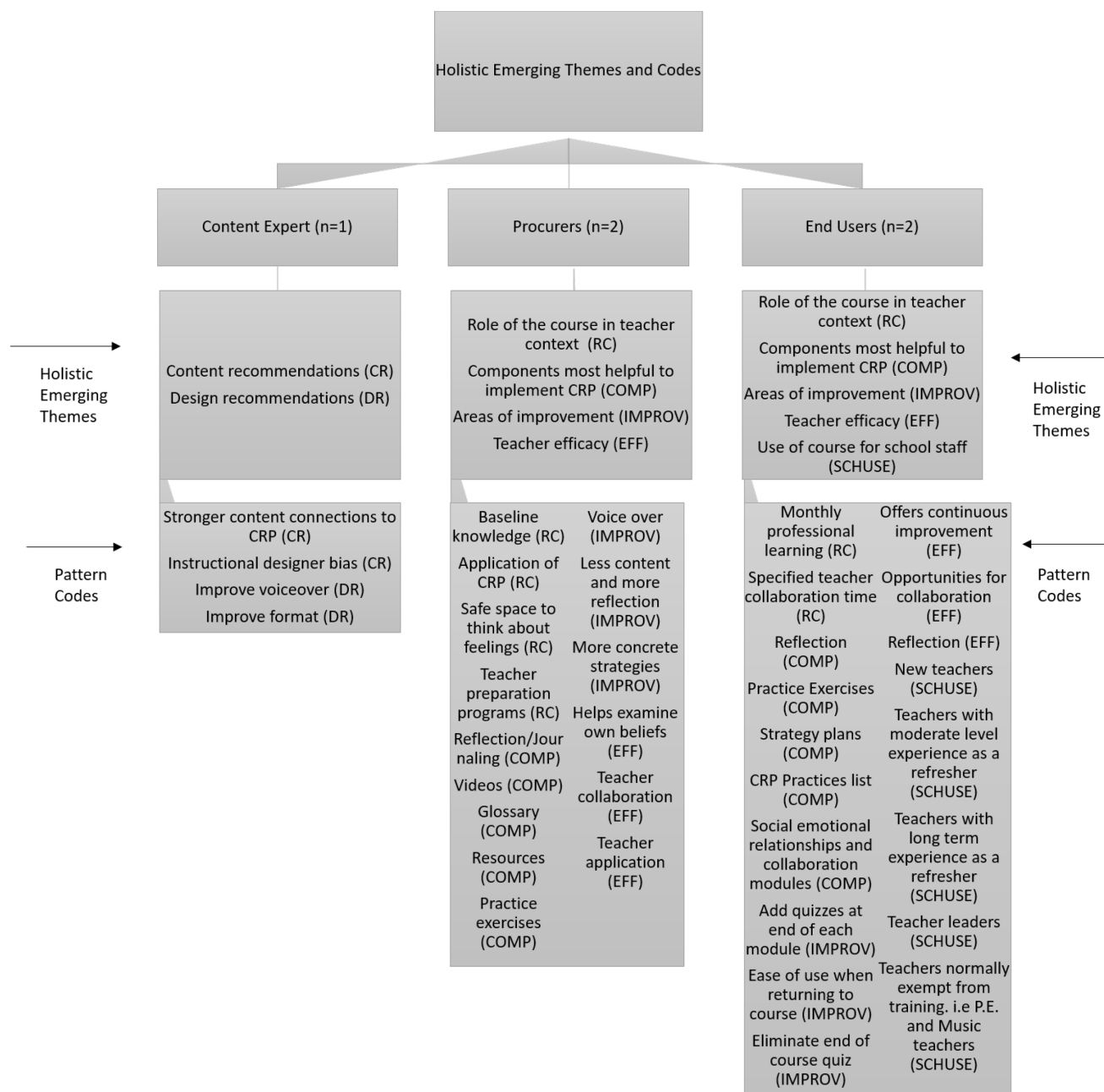


Figure 5.1 *Holistic Emerging Themes and Pattern Codes*

Content Expert Interviews and Questionnaires

The Content Expert and the researcher engaged in four zoom recorded interviews that occurred over a span of four consecutive weeks. Each Monday, the researcher sent a unique link providing access to the online professional learning course. The course was revised weekly

according to the Content Expert recommendations, therefore there was a necessity to send an updated link each week. The researcher also provided a link for an online questionnaire for the Content Expert to complete after reviewing each module. All responses from the Content Expert were used to answer RQ1.

- In what ways can the content and design be improved to convey the four components of CRP to educators according to the Content Expert's role?

The Content Expert provided recommendations for improvement for all four modules through the individual interviews and the online questionnaires. All recommendations presented by the Content Expert resulted in two categories: content recommendations and design recommendations. The interview questions were asked as a follow up to the online questionnaire answers provided by the Content Expert. The online questionnaire asked:

- In what ways do the learning activities provide opportunities for the learner to master the learning outcomes?
- Activities may be active or passive but should be interesting or challenging; please provide feedback if the activity is interesting or challenging. Does the content fully explain the concept presented in the module?
- In what ways are the activities in the module interesting or challenging?
- In what ways does the module explain the concept? Please explain.

Module One: Reflection. Table 5.1 provides the feedback provided by the Content Expert interview and online questionnaire for Module One.

Table 5.1

Content Expert Module One Reflection Recommendations

Content Recommendations	Design Recommendations
Add two formative assessments	Make CRP model clickable
More explicitly connect the journal prompts to CRP	Consider a human voice for the course versus the computerized voiceover
Add additional resources page at the end of the module	Add a hard stop at the end of each module
Add glossary terms at the end of the module	Remove white male image to remove assumptions of who is at fault
Check your own biases	Correct generic box text
Add dissertation copyright information	Provide a format for journal completion
Change “borrowed from Gee” to “built upon”	
Ensure journal exercises reflect back to the course	

Module Two: Social Emotional Relationships. Table 5.2 provides the feedback provided by the Content Expert interview and online questionnaire for Module Two.

Table 5.2

Content Expert Module Two Social Emotional Relationships Recommendations

Content Recommendations	Design Recommendations
Tie content back to CRP	Change format of quiz to short answer to capture suggestions for End-Users to apply content to their context
Tie reflection exercise back to CRP – connect SEL to CRP	Change CRP model to make more visible and clear
Revise slide that discusses relationships among teachers to connect to CRP	Make it clear you can click on the CASEL framework image
Ensure the learner understands why it is important to establish teacher to teacher SEL relationships	Find better images for the be honest, be human, etc. slide

Content Recommendations	Design Recommendations
Why formulate ideas for SEL with students, but create a plan for teachers – make these two objectives complement each other	Change glossary/resources page format – add hyperlinks for resources if possible; consider horizontal columns to give a cleaner look
In the important factors for Edutopia, highlight how it relates to CRP and how you get to people to authentically incorporate it in their practices	
Tie CASEL framework back to CRP and provide authentic ways to do so	
All blue side – mention CRP	
Consider the quiz be about what it looks like to incorporate CRP instead of learners identifying the six types – connect back to CRP	
Define students of color	

Module Three: Collaboration. Table 5.3 provides the feedback provided by the Content Expert interview and online questionnaire for Module Three.

Table 5.3

Content Expert Module Three Collaboration Recommendations

Content Recommendations	Design Recommendations
There should be checks and balances that they are understanding cultural relational pedagogy.	Short answer quiz – check for ease of the user’s ability to go back and forth to look at content (the short answer quiz towards the end of the module)
Slide with puzzle pieces – CRP is not in the description. It is stated, but not in the notes. If a person is not listening, then they will not read it on the slides	Make introductory slide for quiz not a slide that has submit on it, Change to say the next two slides will be short answer (a generic intro). Because when you hit submit it does not take you to the next slide – may be easier to continue using the course journal.
Users should come away with some take away that is quoted by Violet Ford you and not only how you talked about other people.	If use form, where does the short answer go? Would the instructor be able to look at it and share back with the End-User? How will they know if it is wrong?
Slide 62 - need more like this – the how and why of doing things integrated – CRP and	

Content Recommendations	Design Recommendations
<p>student to student collaborations – not just social emotional learning and collaboration</p> <p>Synthesize content</p> <p>Slide 52 – social emotional slide – the three black women and two people with post its - For every person that... what does this have to do with cultural relational pedagogy?</p> <p>When thinking about utilizing CRP, that connection between is very important if we are to honor people and make connections. We want people to feel confident they can use CRP</p> <p>So why is CRP needed? – that is more of what we need to explain the importance of CRP</p> <p>Four ways slide – the second full column – make more explicit to CRP. Add to implement CRP...find actual examples on this four ways slide or add examples that I know about instead of the four smaller examples. Dig deeper to use a scenario that can help teachers grapple with real issues. Use a scenario and talk about the four ways in the context of the scenario instead of the smaller examples</p> <p>Moll citation– take out ampersand and add “and”</p> <p>Module three objectives – look at intro statements – are they supposed to be there? If so, provide proper lead in.</p> <p>Edit the titles of slides on left to match the slides</p>	<p>With short answer quiz, it does not show if it was correct. Would it indicate that the answers are correct/incorrect?</p> <p>Look to see if need to add in quiz results page.</p> <p>Consider adding directions that the person can screenshot their answers to show their instructor</p> <p>Add more CRP slides and forms</p> <p>Slide 1 – correct title – APA</p> <p>Put transcript in resources instead of in the document, or put a skip button</p> <p>Make copyrights reserved smaller and on same line</p> <p>Image of man and woman together on collaboration – pause and think –change image Intro slide for video – the slide with puzzle pieces – was clicking around the slide looking for the video. Need to say that the video is on the next slide.</p>

Module Four: Connection to Community. Table 5.4 provides the feedback provided by the Content Expert interview and online questionnaire for Module Four.

Table 5.4

Content Expert Module Four: Connection to Community Recommendations

Content Recommendations	Design Recommendations
Check to see if Epstein article is proprietary; also consider adding other sources	Name the Module Four Slide (intro slide)
How will user know that they are embodying CRP through the plan that they create – clarify that it is a preplan to work their teacher teams	Slide after objectives – sound and text are slightly off
Double check how first introduce how they interact with community in the module and refocus the listener with the two areas of focus for the briefs	
Explicitly state what the differences are between the two briefs	
Consider rather than using the briefs in totality, take one example and illustrate how the things done in the article related to each component CRP	
Bring it all back together – the four components – how it all integrates. These briefs might be a good way to do that.	
Present final CRP slide before resource slide so that it is a recap	
Add CRP recommendations at the end of each module and at the end of the course – both places for multiple perspectives (Make it Stick) – we want their knowledge to increase	
Make new CRP recommendations downloadable PDF if possible	
Add quiz at the end of the module for understanding (end of course quiz)– can note to send results to instructor	
Make sure that CRP is illuminated – how does CRP bring everything together?	

Content Recommendations	Design Recommendations
Check intro slide – it refers to making use of module 2 and 3, but does not mention module one	
Add a summary section – give a charge	
How do the students gain feedback about the plan? – they need feedback to ensure they are on the right track	
The instructors need to know what their students are doing	
Explain that it is possible to do portions of the CRP and still be doing CRP Intro – you make an explicit connection between two and three, but not to module one. Why? – check this	
Add more CRP into six types of involvement – ex it should be Epstein through the lens of CRP. Will everyone have a teacher team? - in the beginning there were potentially preservice teachers taking the course – consider accompanying instructor notes for the future. Ex. In the case of teachers in training; create groups to work together. Is this a limitation of the design? Also, implications for future research or design	
Define SOC again - reiterate who I mean by SOC when creating summary version	
Consider a quiz in the summary instead of one in module four – multiple choice. What are the things you most want them to take away and implement in their practice?	

Procurer Interviews and Questionnaires

The Procurer participants ($N=2$) and the researcher engaged in one individual interview each. The Procurers also completed an online questionnaire weekly after reviewing each module for four consecutive weeks. Each Monday, the researcher sent a unique link providing access to the online professional learning course. The course was revised weekly according to the Content

Expert recommendations, therefore there was a necessity to send an updated link to the Procurers each week. The researcher also provided a link for an online questionnaire for the Procurers to complete after reviewing each module. All responses from the Procurers were used to answer RQ2, 3, 4, and 5:

- RQ2: In what ways can the content and design be improved to convey the components of CRP to educators according to the Procurer's and End-User's role?
- RQ3: What is the role of the learning course in helping teacher educators or trainers conduct sessions designed to help teachers implement cultural relational pedagogy?
- RQ4: Which components of the learning modules were determined to be most helpful to teacher educators or trainers in understanding how to implement cultural relational practices in their perspective organizations?
- RQ5: In what ways do participants believe completion of the learning course could influence teacher equitable pedagogy efficacy through CRP?

The Procurers provided their perception of each module through the online questionnaires. The individual interviews with each Procurer provided an opportunity to follow up with a discussion of the modules to ascertain a deeper understanding of the Procurer's perceptions (Yin, 2018). All feedback provided by the Procurers fell into four categories: role of learning course to help teachers implement CRP (RC), components most helpful to help teachers implement CRP (COMP), areas of improvement (IMPROV), and teacher efficacy (EFF).

The online questionnaire asked:

- In what role or capacity do you believe the module can be used to help teacher educators or trainers implement cultural relational pedagogy?

- In what ways do you believe the module may influence cultural relational efficacy for teachers?
- Which component(s) (i.e. practice exercises, videos, text, etc.) of the module do you believe might be most beneficial to support teachers as they develop their cultural relational pedagogy practices?
- In what ways do you believe the module may influence teachers' efficacy in cultural relational pedagogy?
- How do you believe the module might be implemented within your educational organization?
- What is your overall perception of the module?
- How do you believe the module might be improved?

An example of the interview questions was:

- What role do you believe the course could play in helping teachers in service implement cultural relational pedagogy?
- In what ways do you believe the course might be implemented within your educational organization that you currently work?

Table 5.5 and Table 5.6 provides the individual interview feedback provided by the Procurer participants ($N=2$). Procurer A is presented in Table 5.5 and Procurer B is presented in Table 5.6. All Procurer participant feedback was gathered through individual interviews and online questionnaires for each module.

Table 5.5

Procurer A Module One Reflection Interview Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
<p>it provides a good baseline knowledge in terms of defining terms and thinking about it. In practice...</p> <p>for teachers in training...when they're doing their student teaching...</p> <p>...the terminology, the subject matter is applicable, especially when I think about the terminology in terms of understanding, academics understanding behaviors, understanding outcomes from a cultural relational perspective.</p> <p>The journaling is really important with our students in terms of while they're going through their internship and field experience.</p>	<p>Journaling</p> <p>...the reflection. makes it a real safe space not to be socially desirable and to really sit with your thoughts.</p> <p>...the extra resources at the end.</p>	<p>...more application... I'm a counselor by training so you know I'm very feelings/ behaviors motivated, so, connecting that to how one feels to think about these things.</p>	<p>in terms of efficacy with the idea of cultural relational pedagogy... it defines it and allows teachers and teachers in training to really, think about application.</p>

Table 5.6

Procurer B Module One Reflection Interview Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
<p>...things that are touched upon in the course that teachers may or may not have been exposed to in their training programs, or maybe, depending on how they came into the profession, maybe didn't have much training at all. I'm thinking then just about some of the ideas for family and community involvement and the importance of relationships...the importance of knowing something of the cultural background of your of individual students to building those relationships, and some of the concrete strategies for engagement and relationship building."</p> <p>...I think it's important for school administrators to know that it's important to make space and time for these kinds of things. It takes time to build relationships...build knowledge of students from different cultural</p>	<p>There were times where ... you we're learning some of the physiology like the oxytocin... hormones...I thought that it was a really useful way to bring those ideas to teachers and to give them some of the physiological background for why some of the you know the relationships are important."</p>	<p>Module Three more than other places but it came up several places, was collaboration... it's an exercise that one does sitting right in front of one's computer and then with the course journal. Any way to build in collaboration or group activities I think would be really helpful to bounce ideas around.</p> <p>I kept finding myself, asking, what would that look like at this school as opposed to that school, and that's obviously not something that you can answer for every context that a student might possibly do. But I'm wondering if there's a way to make them either more specific, or to have that be a jumping off point for a student to say, how would I implement that recommendation in my context..."</p>	<p>...is the dosage high enough to impact efficacy...I found myself wondering... was there enough there that would that I would go in feeling one way and come out saying, I feel a stronger sense of efficacy I definitely think people would come out with some ideas...to try and whether or not they how successful they are with those ideas may determine how, whether they that this ultimately impacts efficacy so the course coupled with practice coupled with debriefing, I could imagine potentially having a strong change...</p>

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
backgrounds in one's own...to go to after school events and whether that happens at the school administrator level or at the actual kind of negotiating of contracts with teachers at the district level...I can see something like this almost playing an advocacy role.		...a more engaging voice (over) I think would be helpful.	

The following tables provide the Procurer participant feedback for the online questionnaires for all four modules of the online professional learning program.

Module One: Reflection Online Questionnaire Procurer Feedback

Table 5.7

Module One: Reflection Procurer A Questionnaire Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
reflecting on personal bias, with more content they can perhaps reflect on their own intersectional identity.	I think the two reflections before you get into the content... I like that they keep an electronic journal.	The robotic voice is monotonous - I wonder if you could use a voice thread to help and give your own voice here. At the end there is a glossary in terms of student ecosystems perhaps you can define that earlier one...I feel like this module needs a little more content.	so far I don't see this yet

Module One: Reflection Procurer B Questionnaire Feedback

Table 5.8

Module One: Reflection Procurer B Questionnaire Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
Any student can use this to reflect upon interactions they have had and to think about implicit bias, although I think they will need to have at least engaged in student teaching for this to be useful. So for pre-service teachers, I think this would only work later in their studies as they will need to have had experiences with students to do this exercise.	I thought the series of questions related to the reflection was a useful way of organizing inquiry into one's practice.	<p>I think it is a good start, but I wonder if it might benefit from some scenarios that guide people's reflections. I wonder about their willingness to engage deeply in reflection based on a relatively short module and to truly interrogate their own practice, and I think more guidance may be helpful.</p> <p>The robotic voice isn't ideal, I would consider actually recording your script. I also think some additional examples of what both strengths based approaches and bias</p>	Changing efficacy is tricky - I wonder if this in itself will have that impact. There may be patterns to how aspiring teachers respond to this, as I can imagine one's first reaction actually being lowered efficacy as one reflects on what one has done wrong in the past (i.e., instances where one may not have been strengths-based, or may have been biased). that could actually result in a drop in efficacy until later modules.

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
		look like could help set the tone for the reflection in which you want people to engage.	
		Finally, the interface is a little bit clunky in terms of moving back and forth between the presentation and the noter document I was asked to open. Including a few more guidelines such as "stop now and the a few minutes to jot down your notes" might be helpful - when I switched away from the window the voice stopped.	

Module Two: Social Emotional Relationships Questionnaire Procurer Feedback

Table 5.9

Module Two: Social Emotional Relationships Procurer A Questionnaire Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
by delving deeper into their own self-awareness and providing key terms	self-reflection questions	As you present the CASEL model perhaps ask some self-reflection questions - perhaps asking the student of the module more	by examining their own beliefs giving them dissonance in examining themselves

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
		about the video and how it plays out in their context - perhaps defining these terms earlier	

Table 5.10

Module Two: Social Emotional Relationships Procurer B Questionnaire Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
I think the material is useful for helping teachers understand the importance of building relationships, as well as some of the biological and neurological reasons for this. I also think this is important for school leaders to learn this so that they set aside time for relationship building, and for teachers to act as leaders.	I liked the video.	more concrete strategies, as well as mixing up the modality (too much reading of slides, not enough engaging activities, although I'm not sure what these might be).	This is tougher - the module explained why it was important, but I'm not sure that I came away with a lot of new strategies that I could implement

Module Three: Collaboration Procurer Questionnaire Feedback

Table 5.11

Module Three Social Emotional Relationships Procurer A Questionnaire Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
to think about current collaborative and future practices	scenario is good and allows reflection- questions at the end are good for reflection but needs to be broken up throughout module	Define what is strong and authentic relationships- the journal prompt, the second question is a closed questions (can be answered yes/no) perhaps creating a list would be better- perhaps the scenario can be extended in terms of responding to the four areas- teachers can apply it to their context	by thinking about aligning with other teachers and students. by understanding the benefits of collaboration

Table 5.12

Module Three Social Emotional Relationships Procurer B Questionnaire Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
I thought it made important points about collaboration, both between teachers and between teachers and students, and I thought it had some concrete suggestions for ways of using knowledge	the concrete examples (getting involved in students activities, learning their funds of knowledge).	I said this about module 2, but I think the robotic voice is not ideal - I might record yourself, and maybe add more video or other ways to engage beyond just having the reading of the slides.	I would think this would increase teachers' sense of efficacy, and it also included suggestions for collaborating with the teachers, which could also help.

Module Four: Connection to Community Procurer Questionnaire Feedback

Table 5.13

Module Four Connection to Community Procurer A Questionnaire Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
thinking reflectively on current practices and professional development	action steps	First writing prompt is ok perhaps you can provide some examples to stir the learners thinking	creating an action plan

Table 5.14

Module Four Connection to Community Procurer B Questionnaire Feedback

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement	Teacher efficacy
I think it clearly makes the point that collaborating with communities and families is very important, and would be useful for that.	The strategies and just the overall argument that knowing your students is important and connecting to their families and communities equally so.	I think more specific strategies, would improve the module.	Including the strategies used by the Colorado district and the HCZ was helpful.

End-User Interviews and Questionnaires

The End-User participants ($N=2$) and the researcher engaged in one focus group. The End-Users also completed a weekly online questionnaire after reviewing each module for four consecutive weeks. Each Monday, the researcher sent a unique link providing access to the

online professional learning course. The course was revised weekly according to the Content Expert recommendations, therefore there was a necessity to send an updated link each week. The researcher also provided a link for an online questionnaire for the End-Users to complete after reviewing each module. All responses from the End-Users answers were used to answer RQ2, RQ3, RQ4, and RQ5:

- RQ2: In what ways can the content and design be improved to convey the four components of CRP to educators?
- RQ3: What is the role of the learning course in helping teacher educators or trainers conduct sessions designed to help teachers implement cultural relational pedagogy?
- RQ4: Which components of the learning modules were determined to be most helpful to teacher educators or trainers in understanding how to implement cultural relational practices in their perspective organizations?
- RQ5: In what ways do participants believe completion of the learning course could influence their equitable pedagogy efficacy through CRP?

The End-Users provided their perception of each module through the online questionnaires. The focus group provided an opportunity to follow up with a discussion of the modules to ascertain a deeper understanding of the End-User's perceptions (Yin, 2018). All feedback provided by the End-Users fell into five categories: role of learning course to help teachers implement CRP (RC), components most helpful to help teachers implement CRP (COMP), areas of improvement (IMPROV), teacher efficacy (EFF), and ways the course could be used in schools (SCHSE).

The online questionnaire asked:

- Which component of the learning module (i.e text, video, practice exercises) did you find most helpful to implement cultural relational pedagogy in your classroom?
- In what ways did the learning module influence your belief that you can accomplish use of cultural relational pedagogy in your classroom?
- Rate your degree of confidence or self-efficacy about your perceived ability to use cultural relational pedagogy using the choices listed below.
- Please provide a rationale for your choice in the above question.

An example of the interview questions were:

- In what ways do you believe the online course could be used as a resource within your educational organization?
- Which component(s) of the learning module were most helpful in understanding how to implement cultural relational pedagogy in your professional context?

Table 5.15 and Table 5.16 provides the individual feedback provided by the End-User participants ($N=2$) during the focus group. Procurer Participant A is presented in Table 5.15 and Procurer Participant B is presented in Table 5.16. All End-User participant feedback was gathered through four online questionnaires and one focus group.

Table 5.15

Focus Group Feedback from End-User A

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement (least favorable areas)	Teacher efficacy	Ways the course could be useful in schools
I like the idea of monthly I was trying to figure out which time frame definitely before the start of the	...it was good just to be able to provide language to things that are	...the quiz at the end. just made me kind of doubt what I had learned.	...when I was working through the modules was into that first module. I was	...when you're preservice you don't really know anything. ...And then when your service

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement (least favorable areas)	Teacher efficacy	Ways the course could be useful in schools
school year, so that it is fresh in your mind kind of what the goals are. And I do like monthly	needed, and why their needed.	So I felt like okay yes let's do this okay yes this is awesome. Then Okay, I don't know anything. Quizzes after each one, maybe... I don't know.	like, Yeah, I can do this I would feel really be successful at this I could take this information and bring it to school,	you're just busy. And so taking time to learn these things is like, I don't have time. And then longtime service you're like, Oh, I know everything. But you don't. I think it's definitely applicable for all levels of education. I would market it more towards like teacher leaders versus individual teachers, because I think oftentimes individual teachers do not have time to just do extra learning things on the side unless they're getting a specific degree or certification. So teacher leaders who can actually implement things into the teachers schedules. I think would be a better use of that.

Table 5.16

Focus Group Feedback from End-User B

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement (least favorable areas)	Teacher efficacy	Ways the course could be useful in schools
...if teachers in our building, could... find like common time during the day to get together and talk about it because funding is not allowing for teachers to have that time to meet and even just reflect together. At some point during the school day...to talk through it with how it how another person's perspective... because we used to have common planning time. And we don't have that anymore.	I would love that when I was watching the modules and working through those to take it into the classroom setting. I would love to have you or someone to bounce ideas off from somebody who, we could email or zoom connect with and just bounce ideas off from or somebody you know to offer advice about things...then to take it to application, it would be nice to have an expert to bounce ideas off from and talk through things.	...the thing I would change which is not actually any of the content, but just more like with the, I guess formatting of it was if you clicked on the link in if you saw something different. But if you once you click on the link, it would always start at module one.	But one of the things when I answered the questions again goes back to my school district, like in my classroom, I could take it and feel like I could start making a change in my classroom. But overall, there were some things that I don't know that I would have this great of self-efficacy, because of the things that I am expected to do with my with my district so you know on a personal level I felt more like I would feel pretty comfortable...	Honestly, just from my experience I think it would fit. I think pre service teachers and in service, teachers, as well as people who have a lot of background. I think all would benefit from it being such an important topic. I don't think, in, in my building, a lot of the trainings that we get are academic, we get very little professional development or training on anything other than the core academic areas. ... the teachers I think the administrators ...our special teachers so our music PE, they don't follow the same professional development, and the expectations for

Role of learning course to help teachers implement CRP	Components most helpful to help teachers implement CRP	Areas of improvement (least favorable areas)	Teacher efficacy	Ways the course could be useful in schools
				them are different, and I think that would be a population of teachers that could also really benefit from something like this.

End-User Online Questionnaire Feedback

End users provided feedback on all four modules of the CRP course. The following are the responses providing feedback for both End-Users. The emerging themes were components of the learning module most helpful to implement CRP, how modules influence efficacy, degree of efficacy (cannot do at all, moderately can do, or highly certain can do), and rationale for chosen level of efficacy. The answers to the End-User online questionnaire were used to answers RQ4 and RQ5:

- RQ4: Which components of the learning modules were determined to be most helpful to teacher educators or trainers in understanding how to implement cultural relational practices in their perspective organizations?
- RQ5: In what ways do participants believe completion of the learning course could influence their equitable pedagogy efficacy?

Module One: Reflection Feedback from End-User A

Table 5.17

Module One: Reflection Online Questionnaire Feedback From End-User Participants

End-User	Components of the learning module most helpful to implement CRP	How modules influenced CRP efficacy	Degree of efficacy (cannot do at all, moderately can do, or highly certain can do)	Rationale for chosen level of efficacy
End-User A	Practice exercises	I never thought about cultural relational pedagogy for my majority students. However, the same way society and culture have influenced marginalized student experiences, they have also influenced all students and the context in how they respond. Something I had not thought about in the past.	Moderately can do	I think this is a great start, however, I would not consider myself an expert as of yet.
End-User B	The text and the practice exercises were both helpful. However, the practice exercise presented an opportunity for me to focus on a situation and interaction with a student and family. Working through remember, understand, apply, etc., helped me	The module is professional (cites research, uses academic language, etc.), but is not presented in an overwhelming way. What I appreciated was that it provided information, but also asked relevant questions that encouraged me to evaluate my biases and	Moderately can do	This module about reflection offered me a chance to consider my own practices and reflect on my reflection :) I know that as educators in my professional context...myself included...need to keep reflection of biases at the forefront of our practices.

End-User	Components of the learning module most helpful to implement CRP	How modules influenced CRP efficacy	Degree of efficacy (cannot do at all, moderately can do, or highly certain can do)	Rationale for chosen level of efficacy
	acknowledge the implicit biases that I had during a difficult interaction I had with this particular student/family, and the patterns of bias that I likely have in general.	classroom practices.		

Table 5.18

Module Two: Social Emotional Relationships Online Questionnaire Feedback from End-User

Participants

End-User	Components of the learning module most helpful to implement CRP	How modules influenced CRP efficacy	Degree of efficacy (cannot do at all, moderately can do, or highly certain can do)	Rationale for chosen level of efficacy
End-User A	The reflection questions.	The specific examples helped me to see things I could possibly implement in the classroom.	Highly certain can do	Now understanding more of what cultural relational pedagogy is, I think that this is an area I have naturally implemented into my classroom. However, there are absolutely areas of growth but it definitely seems feasible. One area of growth for me is building collaborative relationships with other educators in school environments where that is not strong. Breaking through the discomfort to build those relationships is difficult. And a definite are of growth for me.

End-User	Components of the learning module most helpful to implement CRP	How modules influenced CRP efficacy	Degree of efficacy (cannot do at all, moderately can do, or highly certain can do)	Rationale for chosen level of efficacy
End-User B	I found all of the components to be helpful in module two. Similar to module one, the practice exercises/course journal provided and opportunity to reflect on my own current practices based on information in the text. I appreciated that I appreciated the list of resources to access!	The text provided information about how social and emotional learning influences cognitive processes. The video showed teachers addressing the importance of Social and emotional learning and relationships in the classroom setting. As an educator, it is always helpful when professional learning has real teachers talking about experiences in real classrooms. I am reminded of the importance of being honest with students and being vulnerable. This is something that can be implemented immediately.	Highly certain can do	No response

Table 5.19

Module Three: Collaboration Online Questionnaire Feedback from End-User Participants

End-User	Components of the learning module most helpful to implement CRP	How modules influenced CRP efficacy	Degree of efficacy (cannot do at all, moderately can do, or highly certain can do)	Rationale for chosen level of efficacy
End-User A	Practice Exercises and text	It helped me to see what ways I have been implementing CRP and how I have fallen short of capitalizing on teachable moments.	Highly certain can do	I believe that I have been using CRP in many ways and can continue to implement within my educational environment although there are areas where I can improve.
End-User B	As in other modules, I appreciate the opportunity to see the text and watch videos, but then use my course journal to question my own practices and apply the learning to my own setting.	In this module I appreciated the scenario. It provided a relevant example that could occur in the school setting. I also found the slide about how to design student to student collaborations. Overall, I walk away from this module with recognizing a greater appreciation and need for developing teacher to student collaborations in my context.	Moderately can do	The modules are really bringing to light how my professional context influences my ability to use cultural pedagogy. My district has focused on being inclusive for students with varying mental acuity, physical differences, etc. My district is predominantly white and administrators have openly articulated that we do not need to inclusiveness practices for students of color. What?!

Table 5.20

*Module Four: Connection to Community Online Questionnaire Feedback from End-User**Participants*

End-User	Components of the learning module most helpful to implement CRP	How modules influenced CRP efficacy	Degree of efficacy (cannot do at all, moderately can do, or highly certain can do)	Rationale for chosen level of efficacy
End-User A	Practice exercises and reflections.	I felt that I have been implementing cultural relationship pedagogical practices however my quiz reflected gaps in knowledge.	Moderately can do	I missed various answers on the quiz and may not be as knowledgeable as I had originally thought.
End-User B	I appreciated the examples from the HCZ and Boulder Valley. Taking the quiz was a helpful way to review all of the modules and how they connect.	The six types of involvement slides gave great ideas to help with implementation.	Highly certain can do	The modules provided information, as well as slides with relevant and practical ideas to begin to include cultural relational pedagogy in a classroom setting.

Efficacy Self- Ranking. To measure efficacy as perceived by the end-users, data were collected from the online questionnaire for each module, for a total of four. The End-Users were asked to rate their level of efficacy as cannot do at all, moderately can do, or highly certain can do. After completing Module One that discussed reflection, 100% of End-Users believed they could implement CRP on a moderate level (Figure 5.2). End-User A commented, “this is a great start...I would not consider myself an expert yet.” End-User B commented, “This module about reflection offered me a chance to consider my own practices and reflect on my reflection. I

know that as educators in my professional context...myself included...need to keep reflection of biases at the forefront of our practices.”

Rate your degree of confidence or self-efficacy about your perceived ability to use cultural relational pedagogy using the choices listed below.

2 responses

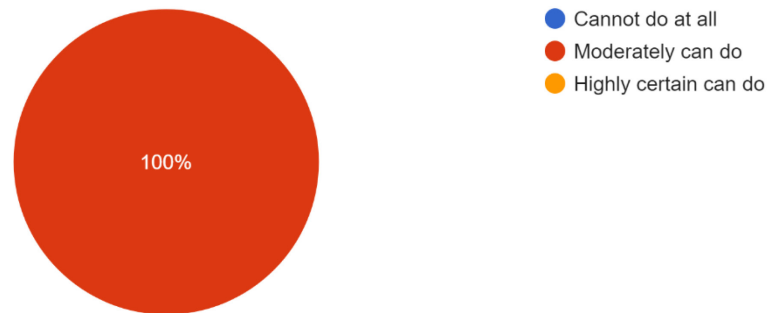


Figure 5.2 Module One: Reflection End-User Efficacy

After completing Module Two that discussed social emotional relationships, End-User participants 100% of End-Users rated their level of efficacy at highly certain can do (Figure 5.3). End-User A advised, “Now understanding more of what cultural relational pedagogy is, I think that this is an area I have naturally implemented into my classroom. However, there are absolutely areas of growth but it definitely seems feasible. One area of growth for me is building collaborative relationships with other educators in school environments where that is not strong. Breaking through the discomfort to build those relationships is difficult. And a definite are of growth for me.” End-User B did not provide a rationale.

Rate your degree of confidence or self-efficacy about your perceived ability to use cultural relational pedagogy using the choices listed below.

2 responses



Figure 5.3 Module Two: Collaboration End-User Efficacy

After completion of Module Three that discussed collaboration, End-User A felt her level of efficacy was highly certain can do. While End-User B felt her level of efficacy was moderately can do (Figure 5.4). End-User A shared, “I believe that I have been using CRP in many ways and can continue to implement within my educational environment although there are areas where I can improve”. End-User B asserted, “The modules are really bringing to light how my professional context influences my ability to use CRP. My district has focused on being inclusive for students with varying mental acuity, physical differences, etc. My district is predominantly white, and administrators have openly articulated that we do not need inclusive practices for students of color. What?!”.

Rate your degree of confidence or self-efficacy about your perceived ability to use cultural relational pedagogy using the choices listed below.
2 responses

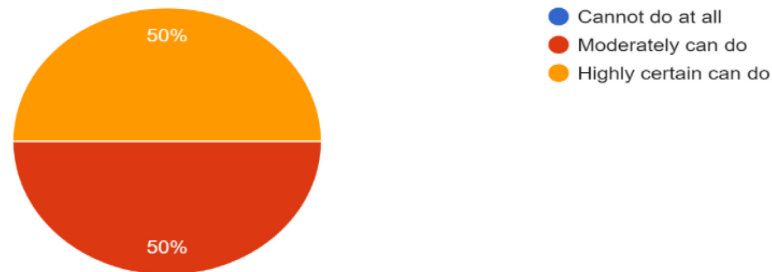


Figure 5.4 Module Three: Collaboration End-User Efficacy

In Module Four, the End-User participants' level of efficacy was split between moderately can do and highly certain can do (Figure 5.5). End-User A felt moderately certain can do, while End-User B felt highly certain can do. End-User A stated, "I missed various answers on the quiz and may not be as knowledgeable as I had originally thought. End-User B stated, "The modules provided information, as well as slides with relevant and practical ideas to begin to include cultural relational pedagogy in a classroom setting".

Rate your degree of confidence or self-efficacy about your perceived ability to use cultural relational pedagogy using the choices listed below.
2 responses

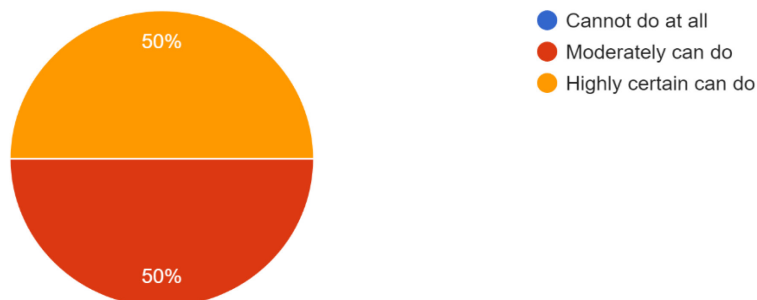


Figure 5.5 Module Four: Connection to Community End-User Efficacy

To determine the average efficacy score for each End-User, the efficacy questions were ranked from 1 to 3 with 1 for cannot do at all, 2 moderately can do, and 3 as highly certain can do. End-User A had an average score of 2.5, End-User B also had an average score of 2.5. Overall, on average both End-Users felt they were moderately to highly certain about their level of efficacy in using CRP to implement equitable teaching practices.

The self-rated efficacy scores are the same for both End-Users for Module One and Module Two. The scores also increased for both End-Users from Module One to Module Two. However, End-User B experienced lowered self-efficacy in Module Three. End-User A experienced lowered self-efficacy in Module Four. End-User B discussed that the decrease in self-efficacy was attributed to a lack of confidence in how well her school leadership would support collaborative practices among teachers. End-User B stated on the online questionnaire that she felt confident she could implement CRP but felt less confident due to her school district's open articulation that they do not need to practice inclusive practices for students of color. End-User A attributed lower self-efficacy in Module Four to the end of course quiz. End-User A shared that she believed she was knowledgeable of the CRP content but felt less confident after missing various answers on the end of course quiz.

Table 5.21

End-User A and B Self Rated Averaged Overall Level of Efficacy

User	Module One	Module Two	Module Three	Module Four	Average (total/4)
End-User A	2	3	3	2	2.5
End-User B	2	3	2	3	2.5

Findings

The findings of the exploratory case study are presented in this section according to research question. The research questions (RQs) guided the presentation for the study's findings and are followed by a discussion of the findings. The overarching goal of the exploratory case study was to explore participant's perception of the online professional learning course through an audit trail process. Using an audit trail process, the researcher followed a systematic approach to collecting data (Creswell & Miller, 2000) by using the perceptions of external reviewers in all three phases of the study to enhance the trustworthiness and credibility. The results of the data helped the researcher identify factors that are needed in the professional learning course to best support teachers in their ability to use CRP.

RQ1 and RQ2: In what ways can the content and design be improved to convey the four components of CRP to educators according to participants roles? To answer RQ1, the researcher gathered data through the document review, four online questionnaires and four individual interviews with the Content Expert participant in Phase One. The same question was also asked for RQ2 in Phase Two's course review with the Procurer and End-User participants. Online questionnaires, individual interviews, and the focus group were used to answer RQ2.

RQ1. The Content Expert provided feedback that was categorized in two areas: content recommendations and design recommendations. The results of RQ1 related to content recommendations were that the Content Expert found that the use of the various mediums including text, exercises, and videos needed continuous connections to CRP to clarify how CRP could be used in practice. As supported by Stephens (2019), teachers who can make connections of learning materials in their learning community for applicability perceived their efficacy to be higher. The Content Expert commented in all four modules that content needed to be better

aligned to how it related to CRP. The Content Expert saw a need for continuous connections to CRP in the text, exercises, and videos. In Module One, the Content Expert advised, “ensure the journal exercises allow the students to utilize the content within their context”. Some recommendations from Module Two included connecting how social emotional relationships are facilitated through CRP. The Content Expert advised to ensure that the “important factors highlight how it relates to CRP and how teachers can authentically incorporate it in their practices” in Module Two.

Other findings for RQ1 were illuminated during review of Modules Three and Four, wherein the Content Expert recommended implementing additional connections to more strongly convey why CRP is needed and to include concrete strategies to assist teachers with applying CRP within their contexts. Additionally, the Content Expert advised to ensure there were opportunities for users to measure their knowledge through quizzes. For example, the Content Expert stated, “When thinking about using CRP, the connection is important if we are to honor people and their contexts. We want people to feel confident they can use CRP”. To ensure users are gaining knowledge, the Content Expert advised, “there should be checks and balances that they are understanding CRP”.

The design recommendations from the Content Expert were to improve use of graphics to make them applicable to content and improve module formats to make them user friendly. The Content Expert also added that the electronic voice should be changed as it gives an eerie feeling to the user and could cause the user to discontinue use of the course.

RQ2. The Procurer and End-User participant’s feedback provided data under the area of improvement category, coded as IMPROV. Similar to the Content Expert’s feedback, the Procurers advised that the course needed more concrete strategies to implement CRP and the

voice over was unattractive to users. Procurer A advised more application was needed to “connect feelings of completing activities to lessons”. Procurer B advised that the ability to make direct connections to each teacher’s context was an improvement that was needed to reach teachers who “may or may not have been exposed to this type of training.”

The End-User participant’s feedback differed from Procurer participants in that they believed the quizzes needed to be improved. Feedback for the quizzes included adding quizzes at the end of each module and eliminating the end of course quiz. Similar to the Content Expert, the End-User participants also added that the format of the course should be improved to allow ease of use when returning to the course.

RQ1 and RQ2 sought to understand how the learning materials could be improved to address the four components of CRP. The Content Expert found that the researcher needed to add more concrete strategies using various forms of media, text, and practice exercise that provided concrete strategies to best assist teachers. The use of concrete strategies is also supported in the Chapter 3 meta synthesis that identified activities such as historical tours and co-teaching that provided experiential learning opportunities for teachers learning new instructional techniques created profound impacts on self-efficacy (Bradshaw, Feinberg, & Bohan, 2016). The Procurer participants felt that the course provided some concrete strategies but needed more. End-User participants believed the course provided concrete strategies that allowed them to conceptualize how they could implement CRP within their contexts. End-User participants felt the connections in the course were relevant and useful to their contexts and contributed to their efficacy.

The difference in the End-User’s perception to those of the Content Expert could be due to the researcher following an instructional design, iterative process (Pappas, 2016); the

researcher revised modules through the course of the study according to the Content Expert's recommendations. Differences in perception between the End-User and Procurer perception could be due to viewing the course with varying professional context lenses. The feedback from all three participants is relevant and should be used to further design the course to meet the needs of all involved. Instructional design follows a continuous development cycle that allows the designer to complete the revisions until the course suits the needs of the targeted population (Kurt, 2018).

RQ3: What is the role of the learning course in helping teachers implement cultural relational pedagogy? To answer RQ3, individual interviews were conducted with Procurer participants and a focus group with the End-User participants. The Procurer and End-User participants also completed one online questionnaire per learning module, for a total of four questionnaires. One result of RQ3 was that the Procurer participants indicated the role of the course could be used to provide baseline knowledge for diversity, equity, and inclusion (DEI) instruction to assist teachers with thinking about equitable practices within their professional contexts. In addition, Procurer B added that the CRP course would best fit within teacher preparation programs but should be tailored to reach varying levels of teacher's knowledge about DEI so that teachers can decide which areas of the course they would like to complete. Procurer A added that the course could be used for all teachers with different levels of experience as a means for them to practice reflection and think about their own feelings about each module within the course.

As opposed to Procurer B's thought that the CRP course would best fit in a teacher preparation program, both End-User participants advised that the online course would best fit within monthly professional learning sessions that allow teachers in service to discuss the

modules and collaboratively create opportunities for implementation within their schools. Likewise, both End-Users added that the online course further illuminated the need for teacher collaboration time during the day; a practice that must be supported by school leadership.

In summary, the findings of RQ3 are that the perceptions of the Procurer and End-User participants were useful to understand how the CRP course could play a role within the participant's professional contexts. According to participant feedback, the CRP course can be used to provide baseline DEI knowledge for new or emerging teachers and should cater to varying levels of knowledge. Further, participants perceived the CRP course as a valuable source for monthly teacher professional learning sessions, discussions, and collaborative work.

In settings outside of this study, the researcher who also served as the instructional designer would have understood the role or need for the course within an organization prior to the design phase (Kurt, 2018). For the purpose of this exploratory case study, the course was designed and then gained the perspectives of participants. Thus, it is natural that participants had varying perceptions of the role of the course. However, the participant feedback was useful for understanding ways the course can later be developed and useful for teachers.

RQ4: Which components of the learning modules were determined to be most helpful to teachers in understanding how to implement cultural relational practices in their respective organizations? To answer RQ4, data was collected during Phase Two of the study. Data was collected using the Procurer and End-Users' online questionnaires, interviews, and focus group. The findings of RQ4 are that Procurer participants indicated the journaling, reflections, videos, glossary terms, resources, and practice exercises were important components to helping teachers implement cultural relational pedagogy. Procurer A indicated the journaling is an important component, particularly for interns that need to document their field experience.

Procurer A also believed the reflections could provide a safe space for users to “sit with their thoughts”. Both Procurer A and Procurer B remarked that the videos provided good examples of implementation of elements of the course including collaboration and social emotional relationships. Both Procurers A and B mentioned the glossary terms and resources were helpful to help support each module. Practice exercises and action steps were mentioned by Procurer A and Procurer B as important components to help create strategic and concrete plans for CRP implementation. Procurer B advised that all modules would benefit from offering more concrete strategies for implementation that are applicable to each user’s context.

The End-Users found that the reflections, practice exercises, strategy plans, and CRP practices lists, and the social emotional relationships and collaboration modules were most helpful components to them as teachers to implement CRP. End-User A further explained that the components of each module worked together to help “provide language to things that are needed and why they are needed”, referring to the four modules that discussed reflection, social emotional relationships, collaboration, and connection to community. End-User B advised that adding the component of a technical expert to provide support via videoconferencing would be helpful to help implement CRP.

The findings of RQ4 are helpful as the researcher extends the current research in the future, drawing upon the preferences of the participants will help design a stronger online course that is useful for teacher implementation. The course used several components. However, the participants’ feedback supports that the journaling, reflections, videos, glossary terms, resources, strategy plans, CRP practices lists, and the social emotional relationships and collaboration modules were most helpful in understanding CRP.

In retrospect of the needs assessment discussed within this study, which illuminated the need for teachers to feel efficacious around equitable pedagogy as they instruct students of color, the findings of RQ4 identified professional learning methods that teachers found useful for implementation. In turn, these professional learning methods have been found to positively influence teacher efficacy (Brezicha, Bergmark, & Mitra, 2015; Youngs & Lane, 2014; Stephens, 2019). Thus, use of the identified professional learning methods in this study could be useful for teacher motivation to learn and incorporate new instructional practices due to higher feelings of efficacy (Lee, Zhu, & Diaz, 2017; Lee et al., 2017).

RQ5: In what ways do participants believe completion of the learning course could influence their equitable pedagogy efficacy through CRP? To answer RQ5, data was collected through the End-User open ended questionnaires, focus group, Procurer online questionnaires, and individual interviews. Similarities in perceived efficacy influence of the CRP course among the Procurers and End-Users was around reflection and collaboration. Both Procurers indicated the reflections allowed the CRP course users to connect their professional contexts through CRP and could influence their efficacy. Additionally, the Procurers and End-Users agreed that the CRP course supports teacher collaboration as an integral component to influencing efficacy.

End-User A and End-User B felt that the final activity that asked users to complete a community involvement pre-plan most impacted their efficacy around CRP. The pre-plan involved using knowledge gained from all four course modules and the CRP recommendations for implementation to answer questions around their current practices and goals for implementing CRP practices. End-User B also added that the ability to interact with a live instructor to facilitate the final activity would contribute to feelings of efficacy and added that a

feeling of success comes with creating the pre-plan. However, End-User B felt an important contributing factor to her efficacy was school leadership involvement for proper CRP implementation. End-User A agreed and followed by stating, “Having a dedicated person to spearhead implementation of the pre-plan would be an important aspect to the plan coming to fruition”.

End-User A noted that the end of course quiz created feelings of being derailed after not passing the test lowered her feelings of efficacy in that the quiz score was lower than she expected. Whereas End-User B did not have the same experience. However, both End-User A and B both advised that the ability to focus on one module or area of improvement as needed would contribute to their efficacy as practitioners.

Both End-User A and End-User B agreed that the lack of supportive school leadership could be a barrier to implementing CRP, therefore lowering their own sense of self efficacy. The End-Users also believed their efficacy would be positively influenced if they had access to a Content Expert to help navigate completion of the modules. End-User’s need for support is supported by Ninkovi and Floric (2018) who identified teacher efficacy is more greatly influenced when teachers receive continuous school leadership support. Collaboration and reflection were perceived by participants as important factors that could influence teacher efficacy around CRP.

The findings of RQ5 magnifies the need for collaboration and reflection as needed components for the CRP course. Participants noted collaboration and reflection are necessary for teacher connection, applying CRP knowledge to their contexts, and influencing their efficacy. Additionally, participants indicated supports not mentioned in the course would influence their efficacy such as leadership support and access to a CRP Content Expert. Finally, participants

indicated the CRP continuous improvement, non-weighted course design allows for users to focus on one area of development at a time.

Critical to teacher's equitable pedagogy efficacy is the need for teachers to feel prepared to provide high quality instruction that connects student's culture, experiences, and knowledge (Gay, 2002). The findings of RQ5 that indicate collaboration and reflection as factors that can influence teacher efficacy are supported by empirical literature identified in Chapter 3. Teacher collaboration improves efficacy through sharing of ideas, teacher connections, and establishing a sense of community in both novice and experienced teachers (Brezicha, Bergmark, & Mitra, 2015; Stephens, 2019). Likewise, reflection influences teacher efficacy by inspiring socially conscious instructional practices and improving teacher and student connections (Quillinan, MacPhail, Dempsey, and McEvoy, 2019).

Reflecting on social cognitive learning (Bandura, 1997) as the theoretical framework to this study, an advantage for teachers that have higher self-efficacy is that they are more likely to believe they can achieve new instructional strategies (Lee et al., 2017). Though the goal of this exploratory study was not to measure if the course influenced efficacy, the findings of RQ4 serve as a catalyst to meet the intermediate and long-term goals of the study in the future as identified in the logic model. The intermediate outcomes, not included in this study are that educators will implement effective equitable instructional professional learning through the CRP course. The long-term outcome, is that students of color will receive equitable pedagogical teaching practices within classroom settings to support them in their college and career pursuits.

RQ6: How has the program delivery adhered to or differed from the proposed objectives and implementation procedure? To measure whether the study adhered to the established procedure, the researcher followed an audit trail process (Wolfinger, 2002) by

recording the study methods using a researcher journal. Table 5.22 displays each study phase, the established goals, the beginning date, and the end date to indicate each goal was satisfied within the study.

To ensure that the study adhered to the established goals, the researcher planned all interviews, online questionnaires, and focus group with the participants in advance and received confirmed appointments through email conversations. The established plan for the study included three research phases. Phase One included online professional learning course predevelopment performed by the researcher and a document review performed by the Content Expert. Subsequent recommendations to the document review were made by the researcher. Phase Two included full development of the online professional learning course by the researcher, review of the course by the Content Expert, four individual interviews between the researcher and the Content Expert, and four open ended questionnaires completed by the Content Expert. Phase Three included review of the professional learning course by the Procurer, four online questionnaires completed by the Procurer participants, and one interview with each Procurer and the researcher. Phase Three also included review and completion of the professional learning course by the End-User participants, completion of four online questionnaires by the End-Users, and one focus group between the End-Users and the researcher. All planned activities occurred within the planned days and within the established time for course development, scheduled interviews, administering of online questionnaires, and scheduled focus group between February 2021 and May 2021.

Establishing fidelity of implementation enables the ability to protect the validity of the study (Rossi et al, 2004). Fidelity of implement followed a formative procedure to improve the

course according to participant feedback (Dusenbury, et al., 2003). The findings of the research questions addressed adherence of the study to its proposed plan and achieved the intended goals.

In sum, the findings of RQ6 revealed that the researcher adhered to the established goals of the exploratory case study. All goals of the researcher study were followed. The study adhered to the proposed objectives and implementation procedure in all three phases of the study including participant engagement and recruitment, development of the course, data collection and analysis.

Table 5.22

Study Goals and Adherence

Research Phase	Research Activities	Completion Timeframe
Phase One: Learning Resource Course Pre-Development Document Review	<ul style="list-style-type: none"> • Online course predevelopment by the researcher • Content Expert document review, add comments using track changes • Researcher made recommended changes to document review 	February 22 – March 11, 2021
Phase Two: Learning Resource Course Development	<ul style="list-style-type: none"> • Full development of online course by the researcher • Content user review Module One and complete online questionnaire • Content user and researcher complete Module One interview • Researcher sent list of recommendations for Content Expert to confirm and made recommended changes to Module One • Content user review Module Two and complete online questionnaire • Content user and researcher complete Module Two interview • Researcher sent list of recommendations for Content Expert to confirm and made recommended changes to Module Two • Content user review Module Three and complete online questionnaire 	March 15 - April 9, 2021

Research Phase	Research Activities	Completion Timeframe
Phase Three: Learning Resource Course Review and Evaluation	<ul style="list-style-type: none"> • Content user and researcher complete Module Three interview • Researcher sent list of recommendations for Content Expert to confirm and made recommended changes to Module Three • Content Expert review Module Four and complete online questionnaire • Content user and researcher complete Module Four interview • Researcher sent list of recommendations for Content Expert to confirm and made recommended changes to Module Four 	March 29 – May 5, 2021
	<ul style="list-style-type: none"> • Procurer participant review Module One and complete online questionnaire • Procurer participant review Module Two and complete online questionnaire • Procurer participant review Module Three and complete online questionnaire • Procurer participant review Module Four and complete online questionnaire • End-User participant review and complete Module One online questionnaire • End-User participant review and complete Module Two and questionnaire • End-User participant review and complete Module Three and questionnaire • End-User participant review and complete Module Four and questionnaire • Individual interview with Procurer A • Individual interview with Procurer B • Focus group with End-User A and End-User B • End-User send transcripts for agreement to Procurer and End-User participants 	

Discussion

Utilizing the exploratory case study approach offered the researcher rich descriptions of participant perceptions (Yin, 2018) of the use of the CRP online professional learning course. The perception of all study participants helped inform the researcher of how the CRP course can support teachers in their abilities to incorporate CRP. Following Bandura's (1986) social cognitive learning theory, a professional learning program was developed to further understand how and in what ways the course could be used to drive their perception of their abilities to adopt a new instructional strategy. Additionally, the exploratory case study allowed the researcher to gather data from multiple sources of data to examine participant perceptions (Yin, 2018). This section presents a discussion of the connections of the findings and the intervention literature discussed in Chapter 3.

Connections to Theoretical Framework and Literature

The exploratory case study used Bandura's (1997) social cognitive learning theory as a theoretical framework. According to Bandura (1986), self-efficacy is defined as one's belief in their ability to succeed or accomplish a goal or task. Social cognitive learning theory was used as a framework to better understand how the professional learning course that was developed by the researcher might influence teacher efficacy in equitable pedagogical practices. It is the long term goal of the researcher that the use of the CRP will be used in the future as an avenue to influence teacher efficacy in equitable pedagogy and to later influence students of color in their career readiness goals as outlined in the logic model in chapter 4. According to Tschannen-Moran and Chen (2014), teachers who have higher self-efficacy are more likely to learn and adapt new instructional strategies.

The End-User participant's perception of the CRP online professional learning program was aligned to important factors illuminated in the theoretical framework. As posited by Gregoire (2003), as adult learners, teachers make decisions of their participation in professional learning according to relevance to their context. The End-Users perceived the course was relevant to their contexts and were able to conceptualize in what ways the course could be useful, namely through professional learning sessions with their teacher teams. Additionally, the End-User's perception of the use of reflection throughout the course as an important component to influencing their self-efficacy is aligned with Tschannen-Moran and Chen (2014) who advise that critical reflection helps support growth of teachers knowledge and efficacy. Relevance and reflection are also two elements recommended by Learning Forward (2011) as a catalyst to effective teachers professional learning programs.

Improvement of Content and Design (RQ1 and RQ2)

A need for more concrete strategies was emphasized across all modules by the Content Expert and Procurer B. According to Content Expert feedback, the use of the various mediums including text, exercises, and videos needed continuous connections to CRP to clarify how CRP could be used to practice equitable pedagogy. The recommendation for more connections is supported by Stephens (2019) who concluded, teachers who were able to make connections of learning materials in their learning community for applicability perceived their efficacy to be higher. The recommendation for more concrete strategies is aligned to Learning Forward's (2011) professional learning recommendations to ensure learning designs are job focused by using real world experiences that adult learners can apply within their professional contexts. Likewise, providing learning experiences for teachers that allows them to draw on their own

work experiences has been found to empower them and positively influence their self-efficacy (Tschannen-Moran & Chen, 2014).

The voiceover was found less favorable by the Content Expert and Procurer B. Both commented that the mechanical voice could cause course users to disengage from the course. Contrarily, neither End-User found the computerized voice unattractive. The differences in opinions provided valuable insight for the researcher and indicated that using a mixture of computerized and human voice as the course is further revised in the future, could enable the course to be more attractive to all participants. As mentioned in chapter 3, the researcher was positioned as an instructional designer in the study. Therefore, the candid feedback from the study's participants enabled the researcher to understand the specified design and content needs of the study's participants.

Role of the Course (RQ3)

Procurer B believed the CRP course could be used to provide a baseline knowledge for students in teacher prep programs. Whereas Procurer A and the End-User participants believed the course could be used at varying levels of teaching experience. Interestingly, as Procurer B described the course as providing baseline knowledge, the End-Users perceived the course enabled them to apply concrete strategies within their professional contexts. The CRP course was designed as an instructional resource that can be used alongside other instructional systems. Thus, the suggested applications of the course between the Procurers and End-Users both provided feedback that could indicate the course has the ability to support teachers at varying levels; depending on their prior knowledge.

The Procurer and End-User participants stated other roles of the course included safe space to think about feelings, monthly professional learning and, specified teacher collaboration

time in schools. The identified roles of the course were aligned to adult learner's need to engage in training encourages active engagement. The differences in opinions across the Procurer and End-User participants could speak to the differences in professional contexts. The Procurers were higher education staff; whereas the End-Users were K-12 teachers. The differences in opinion also point to the need for professional learning solutions to be situational, in that it is catered to the needs of the adult learner with specific learning outcomes that encourage active engagement and application within context (Learning Forward, 2011) as outlined in Chapter 3. Further, as stated in the RQ3 findings, in settings outside of the design of this study, the instructional designer would likely know the role the course would play within an organization prior to developing it. However, whether content design takes place prior to or after discussions with targeted populations, the current study provides meaningful insight to how professional learning should be designed to influence teacher knowledge of equitable pedagogy practices with endeavors to later influence their efficacy.

Components Most Helpful (RQ4)

Providing activities that are multifaceted and adventurous in nature helps deepen adult learner's knowledge while developing their skills and practice (Learning Forward, 2011). Additionally, professional learning that is relevant to practice, encourages teachers to participate in learning and apply new learning to their settings (Gregoire, 2003). Adult learners' need for multifaceted and relevant learning (Learning Forward, 2011) speaks to the various perceptions identified by the participants as components that were most helpful to implement CRP found in the course. As mentioned in the findings, Procurer B asserted that the course could be improved with more concrete strategies; however, both End-Users perceived the practice exercises and action steps were important components that allowed them to practice concrete strategies for

implementing CRP. End-Users also perceived the practice exercises and strategy plans were important components that could be implemented within their context. However, the End-Users also added that continued support would be helpful to implement various components within their contexts.

Other components that Procurers and End-Users found most helpful such as glossary terms, videos, and reflection speak to the need to engage adult learners (Knowles, 1968; Learning Forward, 2011) in professional learning that engages them in various activities that are relevant to their practice.

Self-Efficacy Influence (RQ5)

While the exploratory case study was not designed to determine if a change in teacher efficacy occurred, the researcher did seek to understand the professional learning nuances that might influence teacher efficacy around implementing CRP. Chapter 3 literature revealed factors such as collaboration, reflection, and school leadership that practice transformational leadership practices contribute to teacher efficacy (Desimone, et al., 2002; Kim & Miler, 2015; Learning Forward, 2011; Warrick, 2011;). Feedback from both Procurers further illuminated the need for implementation with supportive leadership, collaboration, and reflection as factors found within the course that might influence efficacy for course users. Likewise, while both End-Users felt confident, they could implement CRP practices, they saw a need for supportive school leadership to enable them to feel fully efficacious as a long-term need. The use of participants' perceptions of factors and components that could contribute to user's efficacy will be useful in future research to determine further development of the CRP course.

Process Evaluation (RQ6)

RQ6 sought to examine if the program delivery adhered to the proposed objectives and implementation procedure. The validity of a study is stronger when the research study ensures fidelity of implementation (Stufflebeam, 2003; Zhang et al. 2011). The exploratory study followed a set of established procedures to ensure fidelity of implementation. Each participant reviewed and provided feedback on all four modules found within the cultural relational pedagogy online professional learning course. All participants provided feedback through two avenues: four online questionnaires and interviews or a focus group. The established study procedures and subsequent development of an online course were aligned to research on effective professional learning and influencing teacher's equitable pedagogy efficacy.

Limitations of the Study

There are limitations to this study related to a case study design. According to Yin (2018), case studies are generalizable to proposed theories, however not to populations. However, the external validity of the study was be increased through the researcher's ability to describe the data and findings with rich descriptions so that readers may ascertain ways in which the findings may be transferable to their own contexts (Miles, et al., 2013). Additionally, collecting data through several sources including the researcher journal, interviews, open-ended questionnaires, and focus groups enabled the researcher to collect participant perspectives, contributing to the credibility of the study (Miles, et al., 2013). Using an audit trail process, the researcher followed a systematic approach to collecting data (Creswell & Miller, 2000) by using the perceptions of external reviewers of the CRP course in all three phases of the study to enhance the trustworthiness and credibility of the study.

An advantage to the applicability of the current research is that the case study findings could be used to implement further research and programs to use for their own professional learning growth within educational organizations (Yin, 2018). As illustrated in the logic model (Figure 4.2), the intermediate and long-term goals were that educators understand the need for effective equitable pedagogical professional learning programs to impact students of color's career readiness goals and students would be engaged in equitable pedagogical learning spaces.

Triangulation can increase the credibility of a qualitative study by using different methods of data collection such as collecting data with different samples, times, or places to compare different approaches to the same thing. Triangulation was accomplished in this study by using meta-analysis, individual interviews/focus groups, and member checking with the Content Expert, Procurer, and end-user participants. Reliability in qualitative studies rests on the accuracy of the researcher's observations (Miles, et al., 2013). It is the extent to which the recorded data aligned to what occurred in the setting that was studied.

Internal validity in qualitative research refers to a match between the researcher's categories and interpretation of what is true and be affected due to researcher bias (Miles, et al., 2013). Internal validity was strengthened by ensuring there was the use of detail, making valid observations, and providing details of the research according to Miles, et al. (2013). The researcher sought to enhance the internal validity of the study by providing detailed accounts of the study and member checking. The external validity or generalizability of a qualitative research study can be weak as the purpose is to provide an understanding of a phenomenon, rather than representing a larger population; however, validity can be improved by the researcher providing findings that can be used in other settings (Miles, et al., 2013). The current research sought to provide extant findings that educational organizations could use to develop effective

cultural relational pedagogical professional learning programs with a long-term goal of improving career readiness instruction for students of color, as outlined in the logic model (Figure 4).

Study time and length were another limitation of this study. The exploratory study was conducted over a course of 10 weeks due to researcher and participant time restraints. However, extending the time frames to collect data from the Content Expert, Procurer, and End-User participants in separate time intervals would have allowed the researcher to make recommended course changes by the Procurer participants prior to End-User review of the modules.

Finally, the virtual setting of the study is a limitation. The individual interviews and focus group were conducted using Zoom for videoconferencing to gain the thoughts and perspectives of the end-users (Creswell & Poth, 2016) about the CRP course. Traditionally, interviews and focus groups are facilitated face to face to enable researchers to observe participants' body language and expressions within the study setting (Miles, et al., 2013). However, by leveraging technology to conduct the interviews and focus groups, the researcher was able to provide scheduling convenience for study participants (Turney & Pocknee, 2004). Additionally, using Zoom as a platform allowed the researcher and participants to interact face to face, allowing the researcher to make needed observations (Stewart & Shandasani, 2017).

Implications for Practice

The findings from this exploratory research study underscore several implications for future practice for implementing professional learning programs related to equitable pedagogy. The implications are a need for professional learning that provides concrete strategies, collaboration, reflection, school leadership support, and technical support. The findings of the exploratory study offer insight for developing professional learning that supports teacher efficacy

around equitable instructional practices through CRP. The following section provides implications for professional learning for researchers, practitioners, and instructional designers.

Concrete Strategies and Equitable Pedagogy

Recommendations for more concrete strategies from the Content Expert and Procurer participants pointed to the need for teachers to engage in activities that connect concept to context. The benefits of revising the course after Content Expert recommendations were seen in the End-User responses to the ability to use concrete strategies within their contexts. The End-Users perceived the course as adding relevant strategies that could be implemented within their respective schools. Learning Forward (2011) asserts that professional learning should be relevant to adult learners and in turn assists them with furthering their careers.

Collaboration and Equitable Pedagogy

Procurer B noted that ends users would likely benefit more from the course if they had an opportunity to engage with other teachers to effectively create pre-plans and actively engage in activities that discussed collaboration with other teachers while engaging in the collaboration module (Module 3). Likewise, both End-User participants noted the need to complete the course modules with their teacher teams to implement CRP within their contexts. The need for professional learning that provides collaboration is supported by Edutopia (2020) and Youngs and Lane (2014). Professional learning that includes the use of collaborative practices such as learning communities provide support for teachers as they learn and implement new skills (Edutopia, 2020) and fosters individual and collective efficacy among teachers (Youngs & Lane, 2014).

Reflection and Equitable Pedagogy

Procurer participants and End-User participants asserted reflection was an important component related to implementing CRP. Procurer A stated reflection creates a safe space for users to think about their own feelings. Procurer B advised reflection was necessary to understand how content fit within user context. Both End-Users advised that reflection was not a common practice as they were not often provided an opportunity to do so. Yet, through reflection, the End-Users were able to think about their own positionality as teachers and determine what they would like to change and continue around implementing CRP.

School Leadership Support and Equitable Pedagogy

Procurer B mentioned the need for school leadership to support teachers by creating daily or monthly schedules that allow them to participate in trainings like the CRP course. Both End-Users indicated that without school leadership, their efficacy would be low for implementation of CRP. While the End-Users believed they could achieve CRP, they felt a strong need for school leadership to support their efforts. Learning Forward (2011) asserts that school leadership in K-12 spaces must establish a clear connection between student achievement and professional learning by providing supportive systems that enable teacher's ability to engage in professional learning and subsequent implementation of new skills.

Instructional Support and Equitable Pedagogy

End-User participants identified a need to have access to technical support via teleconference or face to face visits to facilitate working through the modules and ensure proper implementation. The End-Users advised that time is a barrier for the ability to complete modules and create implementation plans if faced with working solely with other teachers. However, use of instructional support to ensure application and provide follow up to ensure

accountability would impact their abilities to implement CRP. The need for continued teacher support is recommended by Learning Forward (2011) up to five years after professional learning to ensure newly implemented strategies are continuously practiced.

Instructional Design

The instructional design process allows the designer to develop content into educational experiences that support learning success. The instructional design process is an iterative one and should always include feedback from a design team and/or End-Users to ensure the course meets strategic goals (Pappas, 2016). Further, instructional designers should design courses that are interactive, visually appealing, have clearly defined course objectives, assessments, and ensure the content is relevant to the targeted audience (Pappas, 2016). In this study, three different types of participants provided thick, rich descriptions of their perceptions (Miles et al., 2013) of the CRP course. While use of the different types of participants provided divergent views, leaving the researcher to feel at times unsure of which direction to follow; the effectiveness of the instructional design process is puissant. Therefore, utilization of the basic foundations of instructional design by avoiding linear reasoning and leaning to a cyclical, iterative one will yield a quality product over time (Kurt, 2018).

Conclusion

The goal of the exploratory case study was to explore participant's perception of the CRP online professional learning course through an audit trail process (Creswell & Miller, 2000). Using an audit trail process, the researcher followed a systematic approach to collecting data by using the perceptions of external reviewers in Phases One and Two of the study. The perceptions of the participants were well illuminated through use of the exploratory case study design and iterative, instructional design process for developing the course. The perceptions of the

participants are also useful for future development of the CRP course. The researcher asserts that future research could also benefit from gaining the perspectives of the End-User participants at the beginning of the design process to understand their instructional needs prior to course development, following a traditional instructional design process.

The results of the data helped the researcher identify factors that are needed to develop an online professional learning course to support teachers in their ability to use CRP. Given the study participant's feedback the course could be used as baseline knowledge for new or emerging teachers, teacher preparation, or experienced teachers. The researcher does not take position on the use of the course; but rather yields to the instructional design process within the exploratory case study design, by following what the targeted population believes the course could fit within their respective organizations. Future research would benefit from further revision of the course using Procurer and End-User recommendations and the establishment of a larger, mixed methods intervention study to understand how the CRP course influences teacher knowledge and efficacy using both quantitative and qualitative data.

References

- ACET, Inc. (2011, July). *The art of facilitating focus groups*. Retrieved from http://www.interpretereducation.org/wp-content/uploads/2015/02/NCIEC_focus_group_manual_07-20112.pdf
- 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. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=110850781&site=ehost-live&scope=site>
- Adams, C. (2020). Not all black people are African American. Here is the difference. *CBS News*. Retrieved from <https://www.cbsnews.com/news/not-all-black-people-are-african-american-what-is-the-difference/>
- Advance CTE Career Readiness & Every Student Succeeds Act: Mapping Career Readiness in State ESSA Plans /. (2018, December 5). Retrieved from: <https://careertech.org/resource/mapping-career-readiness-essa-full>
- Amendum, S. J. (2014). Embedded professional development and classroom-based early reading intervention: Early diagnostic reading intervention through coaching. *Reading & Writing Quarterly*, 30(4), 348-377. doi:10.1080/10573569.2013.819181
- Arthur, C. A., & Hardy, L. (2014). Transformational leadership: A quasi-experimental study. *Leadership & Organization Development Journal*, 35(1), 38-53. doi:10.1108/LODJ-03-2012-0033
- Association for Career and Technical Education (ACTE). (2010). What is career ready? Retrieved from

https://www.acteonline.org/uploadedFiles/Publications_and_Online_Media/files/Career_Readiness_Paper.pdf

- Attrill, S., Lincoln, M., & McAllister, S. (2017). Culturally and linguistically diverse students in speech-language pathology courses: A platform for culturally responsive services. *International Journal of Speech-Language Pathology*, 19(3), 309-321. doi:10.1080/17549507.2017.1292548
- Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and Teacher Education*, 27, 10–20. doi:10.1016/j.tate.2010.08.007
- Badger, E., Mille, C., Pearce, A., & Quealy, K. (2018). “Extensive Data Shows Punishing Reach of Racism for Black Boys.” *New York Times*, Retrieved from <https://www.nytimes.com/interactive/2018/03/19/upshot/race-class-white-and-black-men.html>
- Balker, B. (2015). Defining an empowering school culture (ESC): Teacher perceptions. *Issues in Educational Research*, 25(3), 205-225. Retrieved from <http://www.iier.org.au/iier25/balkar.pdf>
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, 4(3), 359-373.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Banks, J. A. (2015). Researching race, culture, and difference. In J. A. Banks (Ed.), *Cultural diversity and education: Foundations, curriculum, and teaching* (6th ed; pp. 137-159). Upper Saddle River, NJ: Pearson.

- Bass, B., and Avolio, B. (1990). "Developing Transformational Leadership: 1992 and Beyond." *Journal of European Industrial Training*, 14(5), 21-27.
doi:10.1108/03090599010135122
- Bassey, M. O. (2016). Culturally responsive teaching: Implications for educational justice. *Education Sciences*, 6 Retrieved
from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1135596&site=ehost-live&scope=site>
- Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, 13(4), 544-559. <https://doi.org/10.46743/2160-3715/2008.1573>
- Berliner, D. (2006). Our impoverished view of educational reform. *Teachers College Record*, 108(6a), 949-995. doi:10.1111/j.1467-9620.2006.00682
- Betz, N. E., & Hackett, G. (1997). Application of self-efficacy theory to the career assessment of women. *Journal of Career Assessment*, 5, 383-402.
- Boise, K. & Filet, John. (2018). Leadership and communication as antecedents of shared mental models emergence. *Performance Improvement Quarterly*, 32, 293-316.
doi:10.1002/piq.21267
- Bounds, P. S. (2017) Contextual factors related to African American adolescent career development. *Career Development Quarterly*, 65(2):131-144. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=123521977&site=ehost-live&scope=site>. doi:10.1002/cdq.12087
- Bowen, Glenn. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9, 27-40. doi:10.3316/QRJ0902027.

- Boyce, A. S., & Chouinard, J. A. (2017). Moving beyond the buzzword: A framework for teaching culturally responsive approaches to evaluation. *Canadian Journal of Program Evaluation*, 32(2), 266-279. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2017-57515-005&site=ehost-live&scope=site>. doi:10.3138/10.3138/cjpe.31132
- Bradshaw, C.P., Pas. E.T., Bottiani, J.H., Debnam, K.J., Reinke, W.M., Herman, K.C., & Rosenberg, M.S. (2018). Promoting cultural responsivity and student engagement through double check coaching of classroom teachers: An efficacy study. *School Psychology Review*, 47(2), 118-134.
- Brezicha, K., Bergmark, U., & Mitra, D. L. (2015). One size does not fit all: Differentiating leadership to support teachers in school reform. *Educational Administration Quarterly*, 51, 96–132. doi:10.1177/0013161X14521632
- Broady, K. (2019). *Soba.iamempowered.com*. Retrieved from <http://soba.iamempowered.com/race-automation-and-future-work-america>
- Bronfenbrenner, U. (1994). Ecological models of human development. *The International Encyclopedia of Education*, 3, 1643–1647. doi:10.1016/b0-08-043076-7/00359-
- Brown, A. (2018). *Loving Cities Index*. Retrieved from Schott Foundation <https://lovingcities.schottfoundation.org/wp-content/uploads/2018/01/loving-cities-report.pdf>
- Callaway, R. F. (2017). A correlational study of teacher efficacy and culturally responsive teaching techniques in a southeastern urban school district. *Journal of Organizational and Educational Leadership*, 2(2). Retrieved

from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1144813&site=ehost-live&scope=site>

- Calvert, L. (2016). *Moving from compliance to agency: What teachers need to make professional learning work*. Oxford, OH: Learning Forward and National Commission on Teaching & America's Future. Retrieved from https://nctaf.org/wp-content/uploads/2016/03/NCTAF-Learning-Forward_Moving-from-Compliance-to-Agency_What-Teachers-Need-to-Make-Professional-Learning-Work.pdf
- Campbell, P. F. & Malkus, N. N. (2014). The mathematical knowledge and beliefs of elementary mathematics specialist coaches. *ZDM Mathematics Education*, 46, 213-225.
doi:10.1007/s11858-013-0559-6
- Cantrell, S. C., & Hughes, H. K. (2008). Teacher efficacy and content literacy implementation: An exploration of the effects of extended professional development with coaching. *Journal of Literacy Research*, 40(1), 95-127. doi:10.1080/10862960802070442
- Cappelli, P. (2008). The talent management problem: Why we need to think differently about talent management. In *Talent on demand: Managing talent in an age of uncertainty* (pp. 1-27). Boston, MA: Harvard Business School Press. <https://doi.org/10.1002/hrm.20308>
- Career Readiness & the Every Student Succeeds Act: Mapping Career Readiness in State ESSA Plans*. (2017). <https://Careertech.Org/Resource/Mapping-Career-Readiness-Essa-Full>.
<https://careertech.org/resource/mapping-career-readiness-essa-full>
- Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, 18, 947-967. doi:10.1016/s0742-051

- Cloonan, A., Fox, B., Ohi, S., & Halse, C. (2017). An analysis of the use of autobiographical narrative for teachers' intercultural learning. *Teaching Education*, 28(2), 131-144.
<http://dx.doi.org/10.1080/10476210.2016.1212005>
- Coffey, H., & Farinde-Wu, A. (2016). Navigating the journey to culturally responsive teaching: Lessons from the success and struggles of one first-year, black female teacher of black students in an urban school. *Teaching & Teacher Education*, 60, 24-33.
doi:10.1016/j.tate.2016.07.021
- Cooksy, L. J., Gill, P., & Kelly, P. A. (2001). The program logic model as an integrative framework for a multimethod evaluation. *Evaluation and Program Planning*, 24, 119–128. doi:10.1016/S0149-7189(01)00003-9
- Cooper, H. (2017). *Research synthesis and meta-analysis: A step-by-step approach* (5th ed.). Thousand Oaks, CA: Sage.
- Corcoran, T. B., Shields, P. M., & Zucker, A. A. (1998). *Evaluation of NSF's statewide systemic initiatives (SSI) program: The SSIs and professional development for teachers*. Menlo Park, CA: SRI International.
- Cornileus, T. (2013). I'm a black man and I'm doing this job very well: How African American professional men negotiate the impact of racism on their career development. *Journal of African American Studies*.
<http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=91673549&site=ehost-live&scope=site>. doi:10.1007/s12111-012-9225-2.
- Cousin, G. (2005) Case Study Research, *Journal of Geography in Higher Education*, 29:3, 421-427, DOI: [10.1080/03098260500290967](https://doi.org/10.1080/03098260500290967)

- Cox, R. D. (2016). Complicating conditions: Obstacles and interruptions to low-income students' college "choices." *Journal of Higher Education*, 87(1), 1-26.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130. https://doi.org/10.1207/s15430421tip3903_2
- Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. & Poth, C. N. (2016). *Qualitative Inquiry and Research Design; Choosing Among Five Approaches*. Los Angeles, CA: Sage Publications.
- Cruz, R. A, Manchanda, S., Firestone, A. R., Rod, J. E. (2020). An examination of teachers' culturally responsive teaching self-efficacy. *Teacher Education and Special Education*, 43(3):197-214. doi:10.1177/0888406419875194
- "Culture." *Merriam-Webster.com Dictionary*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/culture>. Accessed 8 Jun. 2018.
- Dagen, A. S., & Bean, R. M. (2014). High-quality research-based professional development: An essential for enhancing high-quality teaching. In L. E. Martin, S. Kragler, D. J. Quatroche, & K. L. Basuerman (Eds.), *Handbook of professional development in education: Successful models and practices, PreK–12* (pp. 42–63). New York, NY: Guilford Press.
- Darling-Hammond, L. (2010). Teacher Education and the American Future. *Journal of Teacher Education*, 61(1–2), 35–47. <https://doi.org/10.1177/0022487109348024>

- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (with Espinoza, D.). (2017). *Effective teacher professional development*. Palo Alto, CA: Learning Policy Institute. Retrieved from <https://learningpolicyinstitute.org/product/teacher-prof-dev>
- Darling-Hammond, L. & Rothman, R. (Eds.) (2011). *Teacher and leader effectiveness in high performing education systems*. Washington, DC, and Stanford, CA: Alliance for Excellent Education and Stanford Center for Opportunity Policy in Education.
- Darling-Hammond, L., Wei, R. C., Abdree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Palo Alto, CA: Stanford University.
- Deming, W. E. (2000). *Out of the crisis*. Cambridge, MA: MIT Press.
doi:10.7551/mitpress/11457.001.0001
- Desimone, L., Porter, A. C., Garet, M., Yoon, K. S., & Birman, B. (2002). Effects of professional development on teachers' instruction: Results from a three-year study. *Educational Evaluation and Policy Analysis*, 24(2), 81-112. doi:10.3102/01623737024002081
- Desimone, L. M., & Le Floch, K. C. (2004). Are we asking the right questions? Using cognitive interviews to improve surveys in education research. *Educational Evaluation and Policy Analysis*, 26. doi:10.3102/01623737026001001
- Desimone, L. M., & Garet, M. S. (2015). Best practices in teachers' professional development in the United States. *Psychology, Society, & Education*, 7, 252–263.
doi:10.25115/psye.v7i3.515
- Dixson, A. D. (2017). "What's Going On?" A critical race theory perspective on Black Lives Matter and activism in education. *Urban Education* 53(2), 231-247.
doi:10.1177/0042085917747115

- Donnelly, J. P., & Trochim, W. M. (2007). *Research methods knowledge base*. Mason, OH: Thomson Custom. Retrieved from <http://irsc.libguides.com/apa/publisherreferencecitation>
- Dusenbury, L., Brannigan, R., Falco, M., & Hansen, W. B. (2003). A review of research on fidelity of implementation: Implications for drug abuse prevention in school settings. *Health Education Research*, 18, 237–256. doi:10.1093/her/18.2.237
- Economic Innovation Group (2016). Distressed Communities Report. <https://eig.org/wp-content/uploads/2016/02/2016-Distressed-Communities-Index-Report.pdf>
- Ellington, A., & Haver, W. (2013). Induction to a new position involves transitions. In P. Campbell, A. Ellington, W. Haver, & V. Ingle (Eds.), *The elementary mathematics specialist's handbook. Teaching Children Mathematics*, (20(8), 522. <https://doi.org/10.5951/teachilmath.20.8.0522>
- Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly*, 26(2), 43-71. doi:10.1002/piq.21143 (Original work published 1993)
- Evans, L., Thornton, B., & Usinger, J. (2012). Theoretical frameworks to guide school improvement. *NASSP Bulletin*, 96, 154-171. doi:10.1177/0192636512444714
- Farrington, C. A. (2014). *Failing at school: Lessons for redesigning urban high schools*. New York, NY: Teachers College Press.
- Fast facts about online learning (2011). International Association for K-12 Online Learning. Retrieved from <https://files.eric.ed.gov/fulltext/ED509627.pdf>
- Finfgeld-Connett, D. (2018). *A guide to qualitative meta-synthesis*. Routledge. Retrieved from <http://ebookcentral.proquest.com>

- Fairbrother, G. P. (2014). Quantitative and qualitative approaches in comparative education. In M. Bray, B. Adamson, & M. Mason (Eds.), *Comparative education research: Approaches and methods* (2nd ed., pp. 71-93). Hong Kong, China: Comparative Education Research Centre
- Fish, R. E. (2017). The racialized construction of exceptionality: Experimental evidence of race/ethnicity effects on teachers' interventions. *Social Science Research*, 62, 317-334.
<https://doi.org/10.1016/j.ssresearch.2016.08.007>
- Fitzgerald, L. F., & Betz, N. E. (1994). Career development in cultural context: The role of gender, race, class, and sexual orientation. In M. L. Savickas & R. W. Lent (Eds.), *Convergence in career development theories: Implications for science and practice* (pp. 103–117). Palo Alto, CA: Consulting Psychology Press.
- Flynn, J., James, R., Mathien, T., Mitchell, P., & Whalen, S. (2017). Pedagogies for engagement and empowerment at the community college. *Curriculum & Teaching Dialogue*, 19(1/2), 69-97
- Gay, G. (2000). *Culturally, responsive teaching: Theory, research, & practice*. New York: Teachers College Press. doi:10.5860/choice.38-1683
- Gee, J. P. (2003). Opportunity to Learn: A language-based perspective on assessment. *Assessment in Education: Principles, Policy & Practice*, 10(1), 27-46.
<https://doi.org/10.1020/09695940301696>
- Gershenson, S., Holt, S. B., & Papageorge, N. (2016). Who believes in me? The effect of student-teacher demographic match on teachers' beliefs. *Economics of Education Review*, 52, 209–224.

- Gilbert, K. A., Voelkel, R. H., Jr., & Johnson, C. W. (2018). Increasing self-efficacy through immersive simulations: Leading professional learning communities. *Journal of Leadership Education*, 17(3), 154-174. doi:10.12806/V17/I3/R9
- Ginsberg, M., & Wlodkowski, R. (2009). *Diversity and motivation: Culturally responsive teaching in college*. San Francisco, CA: Jossey-Bass. doi:10.1111/j.1467-9647.2011.00724.
- Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8(4), 597-606. Retrieved from <http://nsuworks.nova.edu/tqr/vol8/iss4/6>
- Gobillon, L., Selod, H. & Zenou, Y. (2007). The mechanism of spatial mismatch. *Urban Studies*, 44(12):2401-2427.
- <http://search.ebscohost.com/login.aspx?direct=true&db=eoh&AN=0951234&site=ehost-live&scope=site><http://usj.sagepub.com/content/by/year>. doi: <http://usj.sagepub.com/content/by/year>.
- Goddard, R. D., Goddard, Y., Kim, E. S., & Miller, R. (2015). A theoretical and empirical analysis of the roles of instructional leadership, teacher collaboration, and collective efficacy beliefs in support of student learning. *American Journal of Education*, 121, 501–530. doi:10.1086/681925
- Gorman, D.M. (1995). On the difference between statistical and practical significance in school-based drug abuse prevention. *Drugs: Education Prevention and Policy*, 2, 275-283. <https://doi.org/10.3.109/09687639509035750>

- Graif, C., & Matthews, S. A. (2017). The long arm of poverty: Extended and relational geographies of child victimization and neighborhood violence exposures. *Justice Quarterly*, 34(6), 1096-1125. doi:10.1080/07418825.2016.1276951
- Graue, E., Whyte, K., & Delaney, K. K. (2014). Fostering culturally and developmentally responsive teaching through improvisational practice. *Journal of Early Childhood Teacher Education*, 35(4), 297-317. doi:10.1080/10901027.2014.968296
- Gray, J. A., & Summers, R. (2015). International professional learning communities: The role of enabling school structures, trust, and collective efficacy. *International Education Journal: Comparative Perspectives*, 14(3), 61-75. Retrieved from <http://www.iejcomparative.org/>
- Greene, J. & Forster, G. (2003). *Public high school graduation and college readiness rates in the United States* (Education Working Paper No. 3). New York, NY: Center for Civic Innovation at the Manhattan Institute. Retrieved from https://www.narf.org/nill/resources/education/reports/ewp_03.pdf
- Gregoire, M. (2003). Is it a challenge or a threat? A dual process model of teacher's cognition and appraisal process during conceptual change. *Educational Psychology Review*, 15, 147-179. doi:10.1023/a:1023477131081
- Guerrero, C., Shahnazarian, A., & Brown, M. F. (2017). Queer(y)ing culture through professional learning communities: A reimagining of culturally relevant and responsive pedagogy. *Penn GSE Perspectives on Urban Education*, 13(2). Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1143356&site=ehost-live&scope=site>

- Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching*, 8, 381–391. doi:10.1080/135406002100000512
- Guskey T. R., & Yoon, K. S. (2009). What works in professional development? *Phi Delta Kappan*, 90(7), 495-500. doi: 10.1177/003172170909000709
- Hamilton, L., Kaufman, J., Diliberti, M. *Teaching and Leading Through a Pandemic: Key Findings from the American Educator Panels Spring 2020 COVID-19 Surveys*. Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/research_reports/RRA168-2.html.
- Hammond, Z. (2014). *Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students*. Corwin/Sage.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York: Routledge. doi: 10.4324/9780203887332
- Heitner, K. L., & Jennings, M. (2016). Culturally responsive teaching knowledge and practices of online faculty. *Online Learning*, 20(4), 54-78. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1124634&site=ehost-live&scope=site>
- Herzig, A. H. (2006). How can women and students of color come to belong in graduate mathematics? In J. M. Bystydzienski (Ed.), *Removing barriers: Women in academic science, technology, engineering, and mathematics* (pp. 254-270). Bloomington, IN: Indiana University Press.
- Holland, M. M. & DeLuca, S. (2016). “Why wait years to become something?” Low-income African American youth and the costly career search in for-profit trade schools. *Sociology Education*, 89(4), 261-278. doi:10.1177/0038040716666607

- Holzman, M. (2010). *Yes we can: The Schott 50 state report on public education and black males, 2010*. Retrieved from Schott Foundation for Public Education.
<http://schottfoundation.org/resources/yes-we-can-schott-50-state-report-public-education-and-black-males>
- Holzman, M. (2012). *The urgency of now: The Schott 50 State Report on public education and black males*. Retrieved from Schott Foundation for Public Education.
<http://www.schottfoundation.org/urgency-of-now.pdf>
- Hong, J.S., H. Cho, and A.-S. Lee. 2010. Revisiting the Virginia Tech shootings: An ecological systems analysis. *Journal of Loss and Trauma: International Perspectives on Stress & Coping* 15 (6): 561–575.
- Houston D. (2005). Employability, skills mismatch and spatial mismatch in metropolitan labor markets. *Urban Student*
<http://search.ebscohost.com/login.aspx?direct=true&db=eoh&AN=0771947&site=ehost-live&scope=sitehttp://usj.sagepub.com/content/by/year>. doi:
<http://usj.sagepub.com/content/by/year>.
- Husen, T., & Postlethwaite, T.N. (1994), *The international encyclopedia of education* (Vol. 9). Educational Leadership, 43(7), 87-88. doi: <https://doi.org/10.2307/3121682>
- Income and Poverty Measures. (2016). *Encyclopedia of the U.S. Census*.
doi:10.4135/9781452225272.n89
- Jackson, L. (2014). Comparing race, class, and gender. In M. Bray, B. Adamson, & M. Mason (Eds.), *Comparative education research: Approaches and methods* (2nd ed., pp. 194-220). Hong Kong, China: Comparative Education Research Centre.

- Jackson, M. A., Perolini, C. M., Fietzer, A. W., Altschuler, E., Woerner, S., & Hashimoto, N. (2011). Career-related success-learning experiences of academically underachieving urban middle school students. *The Counseling Psychologist*, 39(7), 1024-1060. doi: 10.1177/0011000010397555
- James, C. E. (2004). Urban education: An approach to community-based education. *Intercultural Education*, 15(1), 15–32
- James, J. (2004). *Teachers' attitudes and perceptions of multicultural and diversity awareness in elementary schools*. (Doctoral dissertation). Retrieved from Tennessee Research and Creative Exchange, No. 3041.
- Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016). *Beyond PD: Teacher professional learning in high-performing systems*. Washington, DC: National Center on Education and the Economy. Retrieved from <http://www.ncee.org/wp-content/uploads/2015/08/BeyondPDWeb.pdf>
- Jerrim, J. 2014. “The Unrealistic Educational Expectations of High School Pupils: Is America Exceptional?” *Sociological Quarterly* 55, 196-231. doi:10.1111/tsq.12049
- Johnson, V., Carpenter, J., Richards, C., & Vincent, K. B. (2019). Culturally Responsive Practices for Teacher Candidates: A Neighborhood Treasure Hunt. *Journal for Multicultural Education*, 13(1), 19–32. <http://dx.doi.org/10.1108/JME-07-2017-0042>
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33, 14–26. doi:10.3102/0013189X033007014

- Kennedy, S. Y., & Smith, J. B. (2013). The relationship between school collective reflective practice and teacher physiological efficacy sources. *Teaching and Teacher Education*, 29, 132–143. doi:10.1016/j.tate.2012.09.003
- King, F., & Stevenson, H. (2017). Generating change from below: What role for leadership from above? *Journal of Educational Administration*, 55(6), 657-670. doi:10.1108/JEA-07-2016-0074
- Knaggs, C. M., Sondergeld, T. A., & Schardt, B. (2015). Overcoming barriers to college enrollment, persistence, and perceptions for urban high school students in a college preparatory program. *Journal of Mixed Methods Research*, 9(1), 7-30. doi:10.1177/1558689813497260
- Knowles, M. (1968). Andragogy, not pedagogy. *Adult Leadership*, 16, 350–352, 386.
- Kragler, D. J., Quatroche, D.J., & Basuerman, K. L. (Eds.), *Handbook of professional development in education: Successful models and practices, PreK–12*. New York, NY: Guilford Press.
- Kurt, S. (2018, December 16). *ADDIE Model: Instructional Design*. Educational Technology. <https://educationaltechnology.net/the-addie-model-instructional-design/>
- Labaree, R. V. (2002). The risk of ‘going observationalist’: Negotiating the hidden dilemmas of being an insider participant observer. *Qualitative Research*, 2(1), 97–122. <https://doi.org/10.1177/1468794102002001641>
- Ladson-Billings, G. J. (1994). What we can learn from multicultural education research. *Educational Leadership*, 51(8), 22-26. doi:10.2307/1177306
- Ladson-Billings, G. (2009). *The dreamkeepers: Successful teachers of African American children*. John Wiley & Sons.

- Learning Forward. (2011). *Standards for professional learning*. Oxford, OH
- LeCompte, M., & Goetz, J. (1982). Problems of reliability and validity in ethnographic research. *Review of Educational Research*, 52(1), 31–60.
doi:10.3102/00346543052001031
- Lee, B. H., Zhu, J., & Diaz, D. (2017). Racial/ethnic minority vocational research trends: An 11-year update. *Career Development Quarterly*, 65(4):288-301. <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=126599205&site=ehost-live&scope=site>. doi: 10.1002/cdq.12108.
- Lee, V. E., Dedrick, R. F., & Smith, J. B. (1991). The effect of the social organization of schools on teachers' efficacy and satisfaction. *Sociology of Education*, 64, 190–208.
doi:10.2307/2112851
- Lent, R. W., & Brown, S. D. (1996). Social Cognitive Approach to Career Development: An Overview. *The Career Development Quarterly*, 44(4), 310–321. doi:10.1002/j.2161-0045.1996.tb00448.
- Lent, R. W. (2005). *A social cognitive view of career development and counseling*.
<https://doi.org/10.1002/j.2161-0045.1996.tb00451>.
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology*, 50(4), 36–49.
doi:10.1037/0022-0167.47.1.36
- Leviton, L. C., & Lipsey, M. W. (2007). A big chapter about small theories: Theory as method: Small theories of treatments. *New Directions for Evaluation*, 114, 27-62. doi:10.1002/ev.224

- Lochmiller, C. R., & Lester, J. N. (2017). *An introduction to educational research: Connecting methods to practice*. Thousand Oaks, CA: Sage.
- Louis, K. & Murphy, J., (2017) "Trust, caring and organizational learning: the leader's role." *Journal of Educational Administration*, 55 (1), 103-126. doi:10.1108/JEA-07-2016-0077
- Lumina Foundation. (2018). A stronger nation report: Learning beyond high school builds American talent. Retrieved from <https://www.luminafoundation.org/resources>
- Mallett, C. A. (2017). The school-to-prison pipeline: Disproportionate impact on vulnerable children and adolescents. *Education and Urban Society*. 49(6), 563-592 doi: <http://dx.doi.org/10.1177/0013124516644053>.
- Malo-Juvera, V., Correll, P., & Cantrell, S. (2018). *A mixed methods investigation of teachers' self-efficacy for culturally responsive instruction*. Retrieved from <http://www.sciencedirect.com.proxy1.library.jhu.edu/science/article/pii/S0742051X17315627>. doi-org.proxy1.library.jhu.edu/10.1016/j.tate.2018.05.003
- Marini, J. P., Beard, J., & Shaw, E. (2018). *Student ranking differences within institutions using old and new SAT scores*. Retrieved from <https://files.eric.ed.gov/fulltext/ED581513.pdf>
- Marshall, C. & Rossman, G. B. (2011). *When should a researcher choose a qualitative approach?* [Video file]. Retrieved from <https://methods.sagepub.com/video/when-should-a-researcher-choose-a-qualitative-approach?token=210b109d-7f14-4c12-a097-aef578318ba4749df037979a5daf6f6e528ac924015d&seq=1>

- Marzano, R. & Simms, J. (2013). *Coaching Classroom Instruction*. Bloomington, IN: Marzano Research Laboratory.
- Mau, W. C. (2003). Factors that influence persistence in science and engineering career aspirations. *The Career Development Quarterly*, 51(3), 234-243.
- Mau, W. C. J., & Mau, Y.-H. (2006). Factors Influencing High School Students to Persist in Aspirations of Teaching Careers. *Journal of Career Development*, 32(3), 234–249. <https://doi.org/10.1177/0894845305282602>
- McCoy D. L., Luedke C. L., Winkle-Wagner, R. (2017). Encouraged or weeded out: Perspectives of students of color in the STEM disciplines on faculty interactions. *Journal of College Student Development*; 58(5):657-673. http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1150959&site=ehost-live&scope=site_.doi.org/10.1353/csd.2017.0052
- McKenzie, K., & Scheurich, J. J. (2004). Equity traps: A construct for departments of educational administration. *Educational Administration Quarterly*, 40, 601-632.
- McLaughlin, J., & Jordan, G. (2010). Using logic models. In J. Wholey, H. Hatry, & K. Newcomer (Eds.), *Handbook of practical program evaluation* (pp. 55-80). San Francisco: Jossey-Bass.
- Mehdinezhad, V., & Mansouri, M. (2016). School principals' leadership behaviours and its relation with teachers' sense of self-efficacy. *International Journal of Instruction*, 9(2), 51-60. doi:10.12973/iji.2016.924a
- Meiklejohn, S. T. (2002). Overqualified minority youth in a Detroit job training program:

- Implications for the spatial and skills mismatch debates. *Economic Development Quarterly*, 16(4), 342-359. doi:10.1177/089124202237198
- Mejia-Smith B. & Gushue, G. V. (2017). Latina/o college students' perceptions of career barriers: Influence of ethnic identity, acculturation, and self-efficacy. *Journal of Counseling & Development*, 95, 145-155. doi:10.1002/jcad.12127
- Merriam, S. B., & Kim, Y. S. (2011). Non-Western perspectives on learning and knowing. *The Jossey-Bass reader on contemporary issues in adult education*, 2008; 378-389.
<https://doi.org/10.1002/ace.307>
- Mertens, D. M. (2013). What does a transformative lens bring to credible evidence in mixed methods evaluations? *New Directions for Evaluation*, 138, 27–35. doi:10.1002/ev.20055
- Mezirow, J. (2000). Learning to Think like an Adult. Core Concepts of Transformation Theory. In J. Mezirow, & Associates (Eds.), *Learning as Transformation. Critical Perspectives on a Theory in Progress* (pp. 3-33). San Francisco, CA: Jossey-Bass.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2013). Chapter 4: Fundamentals of qualitative data analysis. In *Qualitative data analysis* (pp. 69-104). Thousand Oaks, CA: SAGE.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2013). Chapter 12: Writing about qualitative research. *Qualitative data analysis: A methods sourcebook* (pp. 293-322). Thousand Oaks: Sage.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A Methods Sourcebook*. Thousand Oaks, CA: SAGE
- Miller, A. (2020, January 3). Creating Professional Learning Communities. Edutopia.
<https://www.edutopia.org/article/creating-effective-professional-learning-communities>

- Milner, H. R. (2007). Race, culture, and researcher positionality: Working through dangers seen, unseen, and unforeseen. *Educational Researcher*, 36(7), 388–400. doi: 10.3102/0013189X07309471
- Mitchell, A. M., & Allen, S. (2014). A qualitative analysis of the curriculum for career-ready graduates from the perspective of academics and business professionals: China, Europe and the United States. *Journal of Higher Education Theory and Practice*, 14(1), 100-117. Retrieved from <https://search.proquest.com/docview/1535657785>
- Molnar, A., & Lindquist, B. (1989). *Changing problem behavior in schools*. San Francisco, CA: Jossey-Bass.
- Moolenaar, N., Slegers, P., & Daly, A. (2012). Teaming up: Linking collaboration networks, collective efficacy, and student achievement. *Teaching and Teacher Education*, 28(2), 251–262. doi:10.1016/j.tate.2011.10.001
- Morgan, S. L., Leenman, T., Todd, J., & Weeden, K. (2012). ‘Occupational plans, beliefs about educational requirements, and patterns of college entry.’ *Sociology of Education*, 86(3), 197-217. doi:10.1177/0038040712456559
- Musu-Gillette, L., de Brey, C., McFarland, J., Hussar, W., Sonnenberg, W., and Wilkinson-Flicker, S. (2017). *Status and Trends in the Education of Racial and Ethnic Groups 2017* (NCES 2017). Washington, DC.: U.S. Department of Education, National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch>
- Nagaoka, J., Farrington, C. A., Ehrlich, S. B., & Heath, R. D. (2015). *Foundations for young adult success: A developmental framework*. Retrieved from <http://files.eric.ed.gov/fulltext/ED559970.pdf>

National Association of Colleges and Employers (2018). The Key Attributes Employers Seek on Students' Resumes. Retrieved from <https://www.nacweb.org/about-us/press/2017/the-key-attributes-employers-seek-on-students-resumes/>

National Center for Education Statistics (NCES), (2015). *Common core of data: Search for public schools report*. Washington, DC: The U.S. Department of Labor, Bureau of Labor Statistics. Retrieved from https://nces.ed.gov/ccd/schoolsearch/school_detail.asp?Search=1&InstName=east+hartford+high+school&State=09&SchoolType=1&SchoolType=2&SchoolType=3&SchoolType=4&SpecificSchlTypes=all&IncGrade=-1&LoGrade=-1&HiGrade=-1&ID=090126000200

National Low-Income Housing Coalition. (2013). *Out of reach, 2013*. Washington, DC. Retrieved from <https://nlihc.org/resource/nlihc-releases-out-reach-2013>

Neal, J. W., & Neal, Z. P. (2013). Nested or networked? Future directions for ecological systems theory. *Social Development*, 22,722-737. doi:10.1111/sode.12018

Nettles, M. T. (2017). *Challenges and opportunities in achieving the national postsecondary degree attainment goals*. Policy information report and ETS research report series no. RR-17-38. ETS Research Report Series. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1168592&site=ehost-live&scope=site>.

Ninkovic, S., & Knezevic Floric, O. (2018). Transformational school leadership and teacher self-efficacy as predictors of perceived collective teacher efficacy. *Educational Management Administration & Leadership*, 46(1), 49-64. doi:10.1177/1741143216665842

No Child Left Behind (NCLB). (2002). retrieved from: <https://www2.ed.gov/nclb/landing.jhtml>

Norton, J. C. (2013). *Elementary ESL and general education co-teachers' perceptions of their co-teaching roles: A mixed methods study* (Doctoral dissertation). Proquest Dissertations Publishing, 2013. 3557498

Nyaema, M. K. (2017). In response to David Greenwood's "Place mobility and faculty life: Mindfulness through change" through the lens of science teacher education programs. *Cultural Studies of Science Education*, 12(2), 513-519. doi:10.1007/s11422-016-9736-6

Odom, S., Vitztum, J., Wolery, R., Lieber, J., Sandall, S., Hanson, M., Beckman, P., Schwartz, I., Horn, E. (2004). Preschool inclusion in the United States: a review of research from an ecological systems perspective. *Journal of Research in Special Educational Needs*, 4(1), 17-49. Doi:10.1111/j.1471-3802.2004.00016

Osborne D., Sibley C., & Sengupta, N. (2015). Income and neighbourhood-level inequality predict self-esteem and ethnic identity centrality through individual- and group-based relative deprivation: A multilevel path analysis. *European Journal of Social Psychology*
Retrieved from
<http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=102271750&site=ehost-live&scope=site>. doi:10.1002/ejsp.2087

Oude-Groote, Beverborg, A., Slegers, P. & van Veen, K. (2015). Promoting VET teachers' individual and social learning activities: The empowering and purposeful role of transformational leadership, interdependence, and self-efficacy. *Empirical Research in Vocational Education and Training*, 7, 1–20. doi:10.1186/s40461-015-0018-4

Ovenden-Hope, T., Blandford, S., Cain, T., & Maxwell, B. (2018). RETAIN early career teacher retention programme: Evaluating the role of research informed continuing professional

- development for a high quality, sustainable 21st century teaching profession. *Journal of Education for Teaching*, 44(5), 590-607 doi:10.1080/02607476.2018.1516349
- Oyerinde, S. A. (2008). A correlational study of teacher efficacy and culturally responsive teaching techniques in four public middle schools (Doctoral dissertation). University of Missouri-Kansas City. Ann Arbor, MI: UMI. doi: 3328709
- Pappas, C. (2016, January 26). Top 6 eLearning Trends for 2016. eLearning Industry. <https://elearningindustry.com/6-top-elearning-trends-2016>
- Pappas, C. (2016, August 20). 10 instructional design elements to include in every eLearning Course. Retrieved from <https://elearningindustry.com/instructional-design-elements-include-every-elearning-course>
- Patton, M.Q. (1990) Qualitative evaluation and research methods. 2nd ed., Sage Publications, Newbury Park.
- Patrick, S. & Worthen, M. (2014) Equitable opportunities for college and career ready students. *The International Association for K-12 Online Learning*. Retrieved from: www.inacol.org/wp-content/uploads/2015/02/iNACOL-Course-Access-Equitable-Opportunities-for-College-and-Career-Ready-Students.pdf
- Paz, I. (2021, July 27). *Pandemic and Racial Injustice Cause Outsize Harm to Black Students, Study Finds*. The New York Times. <https://www.nytimes.com/2021/07/27/us/covid-race-impact-black-education.html>
- Perrone, K. M., Sedlacek, W. E., & Alexander, C. M. (2001). Gender and ethnic differences in career goal attainment. *The Career Development Quarterly*, 50, 168–178. doi:10.1002/j.2161-0045.2001.tb00981.

- Perusse, R., DeRonck, N., & Parzych J. (2017). School counseling: Partnering with a school district to provide postsecondary opportunities for first generation, low income, and students of color. *Psychology in the Schools*, 54, 1222-1228. doi:10.1002/pits.22084
- Pulliam, N., & Bartek, S. (2018). College and Career Readiness in Elementary Schools. *International Electronic Journal of Elementary Education*, 10(3), 355-360. doi: 10.26822/iejee.2018336193
- Quillinan, B., MacPhail, A., Dempsey, C., & McEvoy, E. (2019). Transformative teaching and learning through engaged practice: Lecturers' and students' experiences in a university and underserved community partnership in Ireland. *Journal of Transformative Education*, 17(3), 228-250. doi: <http://dx.doi.org/10.1177/1541344618809681>
- Ratcliffe, C. E., & McKernan, S.-M. (2012). Child Poverty and its Lasting Consequence. SSRN Electronic Journal. doi:10.2139/ssrn.2205388
- Reutzel, D. R., & Clark, S. K. (2014). Shaping the contours of professional development, PreK–12: Successful models and practices. In L. E. Martin, S. Kragler, D. J. Quatroche, & K. L. Basuerman (Eds.), *Handbook of professional development in education: Successful models and practices, PreK–12* (pp. 67–81). New York, NY: Guilford Press.
- Rhodes, M. (2017). A Validation Study of the Culturally Responsive Teaching Survey. *Universal Journal of Educational Research*, 5(1), 45-53. doi: <https://doi.org/10.13189/ujer.2017.050106>
- Robinson-Woods, C. (2018) Culturally responsive teaching in one urban school district. University of Oklahoma (Dissertation).

- Roehrig, G.H., Dubosarsky, M., Mason, A., Carlson, S., & Murphy, B. (2011). We look more, listen more, notice more: Impact of sustained professional development on head start teachers' inquiry-based and culturally relevant science teaching practices. *Journal of Science Education and Technology*. 20(5), 566-578. Doi: [10.1007/s10956-011-9295-2](https://doi.org/10.1007/s10956-011-9295-2)
- Rohlwing, R. L., & Spelman, M. (2014). Characteristics of adult learning: Implications for the design and implementation of professional development programs. In L. E. Martin, S. Kragler, D. J. Quatroche, & K. L. Basuerman (Eds.), *Handbook of professional development in education: Successful models and practices, PreK–12* (pp. 103–118). New York, NY: Guilford Press.
- Rosenberg, M., & Pearlin, L. I. (1978). Social Class and Self-Esteem among Children and Adults. *American Journal of Sociology*, 84, 53-77.
<http://dx.doi.org/10.1086/226740>
- Rossi, P., Lipsey, M., & Freeman, H. (2004). An overview of program evaluation. In P. Rossi, M. Lipsey, & H. Freeman (Eds.), *Evaluation: A systematic approach* (pp. 1–30). Thousand Oaks, CA: Sage.
- Sabates, R., Harris, A. L., & Staff, J. (2011). Ambition gone awry: The long-term socio-economic consequences of misaligned and uncertain ambitions in adolescence. *Social Science Quarterly*, 92, 959-77. doi: [10.1111/j.1540-6237.2011.00799](https://doi.org/10.1111/j.1540-6237.2011.00799)
- Sampson R., Schachner J., & Mare, R. (2017). Urban income inequality and the great recession in sunbelt form: Disentangling individual and neighborhood-level change in Los Angeles. *RSF: The Russell Sage Foundation Journal of the Social Sciences* 3(2). doi: [10.7758/rsf.2017.3.2.05](https://doi.org/10.7758/rsf.2017.3.2.05)

- Samuels, A. J. (2018). Exploring culturally responsive pedagogy: Teachers' perspectives on fostering equitable and inclusive classrooms. *SRATE Journal*, 27(1), 22-30. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1166706&site=ehost-live&scope=site>
- Sanders, M. G., & Galindo, C. (2014). Communities, schools, and teachers. In L. E. Martin, S. Kragler, D. J. Quatroche, & K. L. Basuerman (Eds.), *Handbook of professional development in education: Successful models and practices, PreK–12* (pp. 103–118). New York, NY: Guilford Press.
- Savitz-Romer, M. (2012). The gap between influence and efficacy: College readiness training, urban school counselors, and the promotion of equity. *Counselor Education & Supervision*, 51(2):98-111. doi:10.1002/j.1556-6978.2012.00007.
- Schott Foundation. (2018). *Loving Cities Index Report*. Retrieved from <http://schottfoundation.org/>
- Schunk, D., & Pajares, F. (2002). The development of academic self-efficacy. In A. Wigfield & J. S. Eccles (Eds.), *Development of achievement motivation* (pp. 15–31). San Diego, CA: Academic Press. doi: 10.1016/b978-012750053-9/50003-6
- Shidler, L. (2009). The impact of time spent coaching for teacher efficacy on student achievement. *Early Childhood Education Journal* 36, 453-460. <https://doi.org/10.1007/s10643-008-0298-4>
- Shadish, W., Cook, T., & Campbell, D. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin.

- Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. *Teaching and Teacher Education*, 23, 1086-1101.
doi:10.1016/j.tate.2006.07.011
- Siwatu, K. O. (2011). Preservice teachers' culturally responsive teaching self-efficacy-forming experiences: A mixed methods study. *Journal of Educational Research*, 104(5), 360-369.
10.1080/00220671.2010.487081 Retrieved
from <http://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=63634751&site=ehost-live&scope=site>
- Skaalvik, E. M., & Skaalvik, S. (2010) Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26(4), 1059–1069.
doi:10.1016/j.tate.2009.11.001
- Southern Regional Educational Board. (2018). *Oklahoma: Looking Closer*. Retrieved from
Southern Regional Education Board, Improving Public Education with Proven Policy and Practice website: <https://www.sreb.org/publication/oklahoma-looking-closer>
- Stevens, K. (2019). Supporting teacher confidence and perceived competence in relation to culturally responsive pedagogy utilizing communities of learning Kahui Ako. *Kairaranga*, 20(2), 30-39. Retrieved from:
<https://files.eric.ed.gov/fulltext/EJ1240096.pdf>
- Stewart, D. W., & Shamdasani, P. (2017). Online focus groups. *Null*, 46(1), 48-60.
doi:10.1080/00913367.2016.1252288
- Stoll, L., McMahon, A., & Thomas, S. (2006). Identifying and Leading Effective Professional Learning Communities. *Journal of School Leadership*, 16(5), 611–623. <https://doi.org/10.1177/105268460601600511>

- Stufflebeam, D. L. (2003). The CIPP model for evaluation. In D. L. Stufflebeam & T. Kellaghan (Eds.), *The international handbook of evaluation* (pp. 31–61). Boston, MA: Kluwer Academic Publishers.
- Sun, J. & Leithwood, K. (2012). Transformational school leadership effects on student achievement. *Leadership and Policy in Schools* 11(4): 418–451.
doi:10.1080/15700763.2012.681001
- Szapocznik, J., & Coatsworth, J. D. (1999). An ecodevelopmental framework for organizing the influences on drug abuse: A developmental model of risk and protection. In D. Meyer, & C. R. Hartel (Eds.), *Drug abuse: Origins and interventions* (pp. 331–366). Washington, DC: American Psychological Association. doi:10.1037/10341-014 The College Board. (2015) Career Readiness. from <https://research.collegeboard.org/topics>
- The National Center for Education Statistics. (2016). *Digest of Education*. U.S. Department of Education. <https://nces.ed.gov/pubs2016/2016014.pdf>
- Thompson, B. (2002) “Statistical,” “practical,” and “clinical”: How many kinds of significance do counselors need to consider? *Journal of Counseling & Development*, 80, 64-71. <https://doi.org/10.1002/j.1556-6678.2002.tb00167.x>
- Tilton, J., & Hartnett, M. (2016). What are the influences on teacher mobile technology self-efficacy in secondary school classrooms? *Journal of Open, Flexible and Distance Learning*, 20(2), 79-93. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1120881&site=ehost-live&scope=site>
- Tschannen-Moran, M., & Chen, J. A. (2014). Focusing attention on beliefs about capability and knowledge in teachers’ professional development. In L. E. Martin, S. Kragler, D. J.

- Quatroche, & K. L. Basuerman (Eds.), *Handbook of professional development in education: Successful models and practices*, PreK–12 (pp. 246–264). New York, NY: Guilford Press.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher Efficacy: Capturing an Elusive Construct. *Teaching and Teacher Education*, 17, 783-805.
[http://dx.doi.org/10.1016/S0742-051X\(01\)00036-1](http://dx.doi.org/10.1016/S0742-051X(01)00036-1)
- Turney, L., & Pocknee, C. (2004, December). Virtual focus groups: New technologies, new opportunities, new learning environments. In *Proceedings of the 21st ASCILITE Conference, University of Wollongong, New South Wales, Australia* (pp. 905-912).
- Twenge, J. M., & Campbell, W. K. (2002). Self-esteem and socioeconomic status: A meta-analytic review. *Personality and Social Psychology Review*, 6(1), 59–71. https://doi.org/10.1207/S15327957PSPR0601_3
- Tyack, D. B., & Cuban, L. (1995). *Tinkering toward utopia: A century of public-school reform*. Cambridge, Mass: Harvard University Press.
- U.S. Department of Education (2015). Every student succeeds act.
<https://www.ed.gov/essa?src=rn>
- Voelkel, R. H. & Chrispeels, J. H. (2017) Understanding the link between professional learning communities and teacher collective efficacy. *School Effectiveness and School Improvement*, 28(4), 505-526. doi:10.1080/09243453.2017.1299015
- Wagner, W. E. III. (Sixth Edition). (2016). Chapter 1: Overview. In *Using IBM® SPSS® statistics for research methods and social science statistics* (pp.1-14). Thousand Oaks, CA: SAGE.
- Walker K. (2011). Deficit thinking and the effective teacher. *Education & Urban Society*. 43(5), 576-597. doi: 10.1177/0013124510380721

- Ward, N. L. (2006). Improving equity and access for low-income and minority youth into institutions of higher education. *Urban Education, 41*, 50-70.
- Warrick, D. D. (2011). The urgent need for skilled transformational leaders: Integrating transformational leadership and organization development. *Journal of Leadership, Accountability and Ethics, 8*(5), 11-26. Retrieved from <http://www.na-businesspress.com/jlaeopen.html>
- Watt, K. M., Huerta, J., & Lozano, A. (2007). A comparison study of AVID and GEAR UP 10th grade students in two high schools in the Rio Grande Valley of Texas. *Journal of Education for Students Placed at Risk, 12*, 185-212.
- Wheby, J. H., Maggin, D. M., Moore Partin, T. C., & Robertson, R. (2012). The impact of working alliance, social validity, and teacher burnout on implementation fidelity of the Good Behavior Game. *School Mental Health, 4*(1), 22-33. doi: /10.1007/s12310-011-9067-4
- WeiBenrieder, J., Roesken-Winter, B., Schueler, S. (2015). *ZDM Mathematics Education*. doi:10.1007/s11858-015-0673-8
- Wilson, G. (2012). Starting the same . . . finishing the same? Race, occupational origins, and mobility into managerial positions. *American Behavior Science, 56*(5):682-695. <https://doi-org.proxy1.library.jhu.edu/10.1177/0002764211433803>. doi: 10.1177/0002764211433803
- Wilson, G., & Roscigno, V. J. (2017). Race, ageism and the slide from privileged occupations. *Social Science Research, 69*, 52-64. doi: 10.1016/j.ssresearch.2017.09.009
- Wink, J. (2011). *Critical pedagogy: Notes from the real world*. Upper Saddle River, NJ: Pearson.

- Winograd, G. & Shick -Tryon. (2009). Counseling expectations among students in an opportunity program: Dispositional and cultural influences. *Journal of Counseling and Development*, 87(4), 438-448.
- Windstead, S. (2020). E-Learning Toolkit. My e-Learning World. <https://myelearningworld.com/>
- Wolf, J. P. (2007). Sociological theories of poverty in urban America. *Journal of Human Behavior in the Social Environment*, 16, 41-56.
- Wolfiger, N. H. (2002). On writing fieldnotes: Collection strategies and background expectancies. *Qualitative Research*, 2, 85–93.
<https://doi.org/10.1177/1468794102002001640>
- Wodtke, G. T., Harding, D. J., & Elwert, F. (2011). Neighborhood effects in temporal perspective: The impact of long-term exposure to concentrated disadvantage on high school graduation. *American Sociological Review*, 76(5), 713-736.
doi:10.1177/0003122411420816
- Worthen, M., & Patrick, S. (2018). Course Access: Equitable Opportunities for College and Career Ready Students - iNACOL. Retrieved from
<https://www.inacol.org/resource/course-access-equitable-opportunities-for-college-and-career-ready-students/>
- Yin, R. K. (2018). *Case study research and applications: Design and methods*. Sage.
- Youngs, P., & King, M. B. (2002). Principal Leadership for Professional Development to Build School Capacity. *Educational Administration Quarterly*, 38(5), 643–670. <https://doi.org/10.1177/0013161X02239642>

- Youngs, P., & Lane, J. (2014). Involving teachers in their own professional development. In L. E. Martin, S. Kragler, D. J. Quatroche, & K. L. Basuerman (Eds.), *Handbook of professional development in education: Successful models and practices, PreK–12* (pp. 284–303). New York, NY: Guilford Press.
- Zhang, G., Zeller, N., Griffith, R., Metcalf, D., Williams, J., Shea, C., & Misulis, K. (2011). Using the context, input, process, and product evaluation model (CIPP) as a comprehensive framework to guide the planning, implementation, and assessment of service-learning programs. *Journal of Higher Education Outreach and Engagement*, 15(4), 57–83. Retrieved from <http://openjournals.libs.uga.edu/index.php/jheoe/article/view/628>
- Zonoubi, R., Rasekh, A.E., Tavakoli, M. (2017). EFL teacher self-efficacy development in professional learning communities. *System Journal*, 66, 1-12. doi: /10.1016/j.system.2017.03.003

Culturally Responsive Teaching Self-Efficacy Scale (Siwatu, 2007)

No Confidence At All	Moderately Confident	Completely Confident
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I am able to:

1. adapt instruction to meet the needs of my students.
2. obtain information about my students' academic strengths.
3. determine whether my students like to work alone or in a group.
4. determine whether my students feel comfortable competing with other students.
5. identify ways that the school culture (e.g., values, norms, and practices) is different from my student's home culture.
6. implement strategies to minimize the effects of the mismatch between my students' home culture and the school culture.
7. assess student learning using various types of assessments.
8. obtain information about my students' home life.
9. build a sense of trust in my students.
10. establish positive home-school relations.
11. use a variety of teaching methods.

No Confidence At All	Moderately Confident	Completely Confident
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I am able to:

12. develop a community of learner's whey my class consists of students from diverse backgrounds.
13. use my students' cultural background to help make learning meaningful.

14. use my students' prior knowledge to help them make sense of new information.
15. identify ways how students communicate at home may differ from the school norms.
16. obtain information about my students' cultural background.
17. teach students about their cultures' contributions to science.
18. greet English Language Learners with a phrase in their native language.
19. design a classroom environment using displays that reflects a variety of cultures.
20. develop a personal relationship with my students.
21. obtain information about my students' academic weaknesses.

No Confidence At All	Moderately Confident	Completely Confident
I am able to:		
22. praise English Language Learners for their accomplishments using a phrase in their native language.		
23. identify ways that standardized tests may be biased towards linguistically diverse students.		
24. communicate with parents regarding their child's educational progress.		
25. structure parent-teacher conferences so that the meeting is not intimidating for parents.		
26. help students to develop positive relationships with their classmates.		
27. revise instructional material to include a better representation of cultural groups.		
28. critically examine the curriculum to determine whether it reinforces negative cultural stereotypes.		
29. design a lesson that shows how other cultural groups have made use of mathematics.		
30. model classroom tasks to enhance English Language Learner's understanding.		
31. communicate with the parents of English Language Learners regarding their child's achievement.		

32. help students feel like important members of the classroom.
33. Identify ways that standardized tests may be biased towards culturally diverse students.

No Confidence At All	Moderately Confident	Completely Confident
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I am able to:

34. use a learning preference inventory to gather data about how my students like to learn
35. use examples that are familiar to students from diverse cultural backgrounds
36. explain new concepts using examples that are taken from students' every day lives.
37. obtain information regarding my students' academic interests.
38. use the interests of my students to make learning meaningful for them.
39. Implement cooperative learn activities for those students who like to work in groups.
40. design instruction that matches my students' developmental needs.
41. teach students about their cultures' contributions to society.

Appendix B

Phase Zero Meta-Analysis Crosswalk (abbreviated version)

Author/Year	Professional Learning Type/Title	Method of delivery	Findings
Tran, Y. K. (2014)	CREDE (2002) Standards	Face to face	Increased teacher efficacy
Johnson, V., et al. (2019)	Neighbor-hood treasure hunt	Field experience	Increased teacher efficacy
Cloonan, A., et al. (2017)		Teach reflection and discussion	No reported increase in efficacy
Holmes, 2018	Culturally responsive training	College training and workshops	Teachers who participated in training were more apt to incorporate in their lesson planning
Leutwyler, B. (2014)		Abroad exchange stays	Improved culturally responsive teacher efficacy
Gorski, et al., (2012) –	No PD implemented; no educational experiences noted	No PD	No difference found in type of PD opportunities or professional conferences
Kıray, et al. (2018)	Technologi-cal Pedagogical Content Knowledge (TPACK)	TPACK training	Increased knowledge of TPACK was found to increase the efficacy of pedagogical practices which includes accounting for differences between learners

Parkhouse, et al. (2019)	Multicultural education/CRT	n/a	Some studies revealed teachers felt empowered in their abilities to teach content areas in CRT
White, et al., (2019)	n/a	Previous training – American Psychological Association accreditation – Intergroup Dialogue Facilitation	Training points provided both peer and mentor opportunities for participants to help increase their efficacy
Greenman & Dieckmann (2004)	University course	Theory and Dynamics of Intercultural Interaction in Education university course	6 out 7 students gained courage to apply transformative teaching practices
Larson, et al., (2018)	Intervention (untitled)	CRT and proactive behavior management; used coaching	Study focused on connection between CRT efficacy and student behavior; however, the method of coaching is used as a method for intervention. Note: Teachers self-reported efficacy not connected to student behavior
Doran (2017)	PD (untitled)	Unspecified PD; various PD	Found a need for continued education and collaborative work to solidify CRT concepts
Lakhwani (2019)	PD (untitled)	Preservice PD	Teachers need follow up/ongoing pedagogical support and mentorship to feel efficacious
Serrano, et al., (2006)	None	No PD	Participants requested bilingual materials and staff to assist them to be more culturally relevant; sensitivity training, role modeling, teaching aids
Smoak, et al., (2016)	No intervention	Relationship model PD	Ongoing professional development, collaboration, reflection, communication helped improve teacher efficacy in working with diverse student populations

Gooden & Dantley (2012)	No intervention	No PD	A race-centered framework is needed to instruct leaders on diversity rather than teaching diversity and looking at how race plays a role
Roehrig, (2011)	PD; instruction, role playing, learning communities	Ah Need Dush program	Teacher attitude shifted toward teaching science using culturally inclusive pedagogy
Bradshaw, et al., (2016)	PD; coteaching, field trips, instruction	Seeing History in Focus Together grant program	Teachers felt more efficacious using culturally responsive pedagogy
Bradshaw, et al., (2018)	PD; coaching	Double Check Model PD; coaching	Coached teachers employed better classroom management efficacy using culturally responsive pedagogy
Stevens (2019)	PD; community of learning	Community of Learning Kahui Ako	Teachers identified effective working relationships and, making connection across the learning community and sharing expertise as key factors to confidence in culturally responsive pedagogy
Bishop & Berryman (2010)	PD; collaborative story telling	Te Kotahitanga PD project	Continued support and ongoing feedback through coaching, working in cross curricular groups, professional learning communities focused on student achievement, school leadership support, and continued feedback loops
Chu & Garcia (2014)	No intervention	Participant previous teacher education program	Teachers involved in teacher education programs who attended a program with diverse populations, received certification in bilingual education, attended over 6 PD sessions, and attended PD session with exclusive focus on culturally and linguistically diverse background students
Quillinan, et al., (2019)	PD	CWell PD; lecture, interaction, reflection	Participants noted an increase in confidence in their abilities to learn and

	drawing prior knowledge and attitudes	use the CRT and transformative learning pedagogy
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Appendix C

Content Expert Consent Template and Open-Ended Questionnaire

1. **Research Summary (Key Information):**

The information in this section is intended to be an introduction to the study only.

Complete details of the study are listed in the sections below. If you are considering participation in the study, the entire document should be discussed with you before you make your final decision. You can ask questions about the study now and at any time in the future.

This is a student research project that is part of Violet Ford’s Ed.D. dissertation at Johns Hopkins University, School of Education. The purpose of the study is to explore professional learning factors for an online professional learning course that may influence educator knowledge and perceived efficacy in cultural relational pedagogy. The study aims to shed light on how an online professional learning module plays a role in the participants' knowledge and perceived efficacy in cultural relational pedagogy. We anticipate that approximately nine participants will participate in the study: one Content Expert, two potential Procurers, and five End-Users.

2. **Why is this research being done?**

This research is being done to highlight classroom instructional factors that may impede students of color from being prepared for college and careers and investigate professional learning factors that may influence educators' efficacy around implementing cultural relational pedagogy in the classroom.

3. What will happen if you join this study?

If you agree to be in this study, we will ask you to do the following things:

- Complete an electronic demographic survey prior to participating in the initial interview. This electronic demographic survey will take 5 minutes to complete.
- Procurer participant: Review online professional learning course with four modules. Each module will range from 10 to 20 minutes. While reviewing each module, you will complete an online survey. You will review one module per week and complete the online survey after review completion. Online professional learning course review will take place for four consecutive weeks between February and March 2021.

Photographs/Video recordings:

We are not requesting permission to create and use video recordings for your part of the research as a Procurer participant.

How long will you be in the study?

You will be in this study for four weeks (February to March 2021)

4. What are the risks or discomforts of the study?

You may get tired or bored when we are asking you questions, or you are completing online open-ended questionnaires. You do not have to answer any question you do not want to answer.

The risks associated with participation in this study are no greater than those encountered in daily life.

5. Are there benefits to being in the study?

You may or may not benefit from being in this study. This study may benefit society if the results lead to a better understanding of how to prepare an online professional learning course to help prepare teachers instructing students of color for college and careers.

6. What are your options if you do not want to be in the study?

Your participation in this study is entirely voluntary. You choose whether to participate. If you decide not to participate, there are no penalties, and you will not lose any benefits to which you would otherwise be entitled.

7. Will it cost you anything to be in this study?

No.

8. Will you be paid if you join this study?

No.

9. Can you leave the study early?

- You can agree to be in the study now and change your mind later, without any penalty or loss of benefits.
- If you wish to stop, please tell us right away.
- If you want to withdraw from the study, please email Violet Ford at vford@jhu.edu.

10. Why might we take you out of the study early?

You may be taken out of the study if:

- The study is cancelled.
- There may be other reasons to take you out of the study that we do not know at this time.

If you are taken out of the study early, Johns Hopkins may use or give out your information that it has already collected if the information is needed for this study or any follow-up activities.

11. How will the confidentiality of your biospecimens and/or data be protected?

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the National Institutes of Health and the Office for Human Research Protections. (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

Surveys and interview notes for the study will be anonymized using participant ID codes in a disaggregated database that will be maintained by the researcher. A file that references the actual names of individuals and their participant IDs will be maintained by the researcher on a password-protected laptop and will be housed separate from survey responses and interview notes. Participant ID codes will be generated by randomly assigning a 2-digit code to each participant. Codes will be numerical (e.g., 01, 02, 09, 12). Video recording data from the interviews will be de-identified through transcription

and destroyed after the study.

All research data will be kept in a secured location. Electronic data will be stored on the researcher's computer, which is password protected. Paper documents will be stored in a locked cabinet at the student investigator's work office or home. All data will be backed up bi-monthly on an external hard drive that will be kept in the student investigator's home.

12. What other things should you know about this research study?

What is the Institutional Review Board (IRB) and how does it protect you?

This study has been reviewed by an Institutional Review Board (IRB), a group of people ~~that~~ who reviews human research studies. The IRB can help you if you have questions about your rights as a research participant or if you have other questions, concerns or complaints about this research study. You may contact the IRB at 410-516-6580 or hirb@jhu.edu.

What should you do if you have questions about the study?

Call the principal investigator, Yolanda Abel, EdD at (410) 516-6002. If you wish, you may contact the principal investigator by letter. The address is on page one of this consent form. If you cannot reach the principal investigator or wish to talk to someone else, call the IRB office at 410-516-5680.

You can ask questions about this research study now or at any time during the study, by talking to the researcher working with you, Violet Ford, student researcher, at (405) 306-6092. If you have questions about your rights as a research participant or feel

that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

Future Contact

We would like your permission for our research team to contact you in the future. Please note that your decision does not prevent other researchers at Johns Hopkins University from contacting you about other research.

Student Researcher/Principal Investigator: Indicate the participant's decision below by checking the appropriate statement:

_____ I **agree** to allow the research team to contact me in the future and understand that my decision does not prevent other researchers at Johns Hopkins University from contacting me about other research.

_____ I **do not agree** to allow the research team to contact me in the future and understand that my decision does not prevent other researchers at Johns Hopkins University from contacting me about other research.

13. What does your electronic consent mean?

Your electronic consent means that: You understand the information read to you, you accept the provisions that were stated, and you agree to join the study. You will not give up any legal rights by verbally consenting to join this study.

**WE WILL PROVIDE YOU WITH AN ELECTRONIC COPY OF THIS
INFORMED CONSENT SCRIPT**

Student Researcher/Principal Investigator: Indicate the participant's decision

below by checking the appropriate statement:

_____ I **agree** to participate in this research study.

_____ I **do not agree** to participate in this research study.

Date of electronic consent: _____

Content Expert Open-Ended Questionnaire

Online Course Open-Ended Questionnaire			
Module Number	Module Objectives	Corresponding Teaching and Learning Activities (pre- reflection, learning resource content, summary, post reflection). In what ways do the learning activities provide opportunity for the learner to master the learning outcomes?	Assessment Tasks – Is the assessment task fair, time efficient, and conducive to learning?
		Activities may be active or passive but should be interesting or challenging; please provide feedback if the activity is interesting or challenging. Does the content fully explain the concept presented in the module? In what ways do the learning activities	

Online Course
Open-Ended
Questionnaire

provide opportunity for
the learner to master the
learning outcomes?
(Content Expert)

In what ways are the
activities in the module
interesting or
challenging? (Content
Expert)

In what ways does the
module explain the
concept? Please
explain. (Content
Expert)

Appendix D

Procurer Consent Template and Open-Ended Online Questionnaire

4. Research Summary (Key Information):

The information in this section is intended to be an introduction to the study only.

Complete details of the study are listed in the sections below. If you are considering participation in the study, the entire document should be discussed with you before you make your final decision. You can ask questions about the study now and at any time in the future.

This is a student research project that is part of Violet Ford's Ed.D dissertation at Johns Hopkins University, School of Education. The purpose of the study is to explore professional learning factors for an online professional learning course that may influence educator knowledge and perceived efficacy in cultural relational pedagogy. The study aims to shed light on how an online professional learning module plays a role in the participants' knowledge and perceived efficacy in cultural relational pedagogy. We anticipate that approximately nine participants will participate in the study: one Content Expert, two potential Procurers, and five End-Users.

5. Why is this research being done?

This research is being done to highlight classroom instructional factors that may impede students of color from being prepared for college and careers and investigate professional learning factors that may influence educators' efficacy around implementing cultural relational pedagogy in the classroom.

6. What will happen if you join this study?

If you agree to be in this study, we will ask you to do the following things:

- Complete an electronic demographic survey prior to participating in the initial interview. This electronic demographic survey will take 5 minutes to complete.
- Procurer participant: Review online professional learning course with four modules. Each module will range from 10 to 20 minutes. While reviewing each module, you will complete an online survey. You will review one module per week and complete the online survey after review completion. Online professional learning course review will take place for four consecutive weeks between February and March 2021.

Photographs/Video recordings:

We are not requesting permission to create and use video recordings for your part of the research as a Procurer participant.

How long will you be in the study?

You will be in this study for four weeks (February to March 2021)

14. What are the risks or discomforts of the study?

You may get tired or bored when we are asking you questions, or you are completing online open-ended questionnaires. You do not have to answer any question you do not want to answer.

The risks associated with participation in this study are no greater than those encountered in daily life.

15. Are there benefits to being in the study?

You may or may not benefit from being in this study. This study may benefit society if the results lead to a better understanding of how to prepare an online professional learning course to help prepare teachers instructing students of color for college and careers.

16. What are your options if you do not want to be in the study?

Your participation in this study is entirely voluntary. You choose whether to participate. If you decide not to participate, there are no penalties, and you will not lose any benefits to which you would otherwise be entitled.

17. Will it cost you anything to be in this study?

No.

18. Will you be paid if you join this study?

No.

19. Can you leave the study early?

- You can agree to be in the study now and change your mind later, without any penalty or loss of benefits.
- If you wish to stop, please tell us right away.
- If you want to withdraw from the study, please email Violet Ford at vford@jhu.edu.

20. Why might we take you out of the study early?

You may be taken out of the study if:

- The study is cancelled.
- There may be other reasons to take you out of the study that we do not know at this time.

If you are taken out of the study early, Johns Hopkins may use or give out your information that it has already collected if the information is needed for this study or any follow-up activities.

21. How will the confidentiality of your biospecimens and/or data be protected?

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the National Institutes of Health and the Office for Human Research Protections. (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

Surveys and interview notes for the study will be anonymized using participant ID codes in a disaggregated database that will be maintained by the researcher. A file that references the actual names of individuals and their participant IDs will be maintained by the researcher on a password-protected laptop and will be housed separate from survey responses and interview notes. Participant ID codes will be generated by randomly assigning a 2-digit code to each participant. Codes will be numerical (e.g. 01, 02, 09, 12). Video recording data from the interviews will be de-identified through transcription

and destroyed after the study.

All research data will be kept in a secured location. Electronic data will be stored on the researcher's computer, which is password protected. Paper documents will be stored in a locked cabinet at the student investigator's work office or home. All data will be backed up bi-monthly on an external hard drive that will be kept in the student investigator's home.

22. What other things should you know about this research study?

What is the Institutional Review Board (IRB) and how does it protect you?

This study has been reviewed by an Institutional Review Board (IRB), a group of people who reviews human research studies. The IRB can help you if you have questions about your rights as a research participant or if you have other questions, concerns or complaints about this research study. You may contact the IRB at 410-516-6580 or hirb@jhu.edu.

What should you do if you have questions about the study?

Call the principal investigator, Yolanda Abel, EdD at (410) 516-6002. If you wish, you may contact the principal investigator by letter. The address is on page one of this consent form. If you cannot reach the principal investigator or wish to talk to someone else, call the IRB office at 410-516-5680.

You can ask questions about this research study now or at any time during the study, by talking to the researcher working with you, Violet Ford, student researcher, at (405) 306-6092. If you have questions about your rights as a research participant or feel

that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

Future Contact

We would like your permission for our research team to contact you in the future. Please note that your decision does not prevent other researchers at Johns Hopkins University from contacting you about other research.

Student Researcher/Principal Investigator: Indicate the participant's decision below by checking the appropriate statement:

_____ I **agree** to allow the research team to contact me in the future and understand that my decision does not prevent other researchers at Johns Hopkins University from contacting me about other research.

_____ I **do not agree** to allow the research team to contact me in the future and understand that my decision does not prevent other researchers at Johns Hopkins University from contacting me about other research.

23. What does your electronic consent mean?

Your electronic consent means that: You understand the information read to you, you accept the provisions that were stated, and you agree to join the study. You will not give up any legal rights by verbally consenting to join this study.

WE WILL PROVIDE YOU WITH AN ELECTRONIC COPY OF THIS

INFORMED CONSENT SCRIPT

Student Researcher/Principal Investigator: Indicate the participant's decision below by checking the appropriate statement:

_____ I **agree** to participate in this research study.

_____ I **do not agree** to participate in this research study.

Date of electronic consent: _____

Procurer Online Questionnaire Questions:

Please answer the following questions after reviewing each module.

- What role do you believe the module might be used to train teachers?
- Which component(s) (i.e., practice exercises, videos, text, etc.) of the module do you believe will be most beneficial to assist teachers develop their cultural relational pedagogy practices?
- In what ways do you believe the module might influence teachers' efficacy in cultural relational pedagogy?
- How do you believe the module might be implemented within your educational organization?
- What is your overall perception of the module?
- How do you believe the module might be improved?

Appendix E

End-User Focus Group Consent Template and Open-Ended Online Questionnaire

You are being asked to join a research study. Participation in this study is voluntary. Even if you decide to join now, you can change your mind later.

1. Research Summary (Key Information):

The information in this section is intended to be an introduction to the study only. Complete details of the study are listed in the sections below. If you are considering participation in the study, the entire document should be discussed with you before you make your final decision.

You can ask questions about the study now and at any time in the future.

This is a student research project that is part of Violet Ford's Ed.D dissertation at Johns Hopkins University, School of Education. The purpose of the study is to explore professional learning factors for an online professional learning course that may influence educator knowledge and perceived efficacy in cultural relational pedagogy. The study aims to shed light on how an online

professional learning module plays a role in the participants' knowledge and perceived efficacy in cultural relational pedagogy. We anticipate that approximately eight participants will participate in the study: one Content Expert, two potential Procurers, and five End-Users.

2. Why is this research being done?

This research is being done to highlight classroom instructional factors that may impede students of color from being prepared for college and careers and investigate professional learning factors that may influence educators' efficacy around implementing cultural relational pedagogy in the classroom.

3. What will happen if you join this study?

If you agree to be in this study, we will ask you to do the following things:

- Complete an electronic demographic survey prior to participating in the initial interview. This electronic demographic survey will take 5 minutes to complete.
- Content Expert participant: Review online professional learning course with four modules. Each module will range from 10 to 20 minutes. While reviewing each module, you will complete an online open-ended questionnaire. You will review one module per week. At the end of each week, you will participate in an open discussion with the student researcher to discuss the recently reviewed module. The online open-ended questionnaire will help guide the discussion. Module discussions will last 60 minutes. The discussions will take place between December 2020 and January 2021 utilizing the zoom platform.

●Procurer participant: Review online professional learning course with four modules. Each module will range from 10 to 20 minutes. While reviewing each module, you will complete an online survey. You will review one module per week and complete the online survey after review completion. Online professional learning course review will take place for four consecutive weeks between February and March 2021.

●End-User participant: Use online professional learning course with four modules. Each module will range from 10 to 20 minutes. For each module, you will participate by reading text, watching videos, taking quizzes, and/or completing practice tasks. You will complete one module per week and will complete a feedback after completion of each module. Course use will take place for four consecutive weeks between February and March 2021. You will participate in a focus group discussion utilizing the zoom platform after using all four modules.

●By signing this consent form, you are giving permission to be video recorded during the virtual interviews.

Photographs/Video recordings:

As part of this research, we are requesting your permission to create and use video recordings. Any video recordings will not be used for advertising or non-study related purposes.

You should know that:

●You may request that the video recordings be stopped at any time.

●If you agree to allow the video recordings and then change your mind, you may ask us to destroy that imaging/recording. If the imaging/recording has had all identifiers removed, we may not be able to do this.

●We will only use these video recordings for the purposes of this research.

●The video recordings will be transcribed by an outside company that has agreed to keep all data confidential.

How long will you be in the study?

You will be in this study for four weeks (Content Expert: December to January; Procurer: February to March; End-User: February to March)

4.What are the risks or discomforts of the study?

You may get tired or bored when we are asking you questions, or you are completing open-ended questionnaires. You do not have to answer any question you do not want to answer.

The risks associated with participation in this study are no greater than those encountered in daily life.

5.Are there benefits to being in the study?

You may or may not benefit from being in this study. This study may benefit society if the results lead to a better understanding of how to prepare an online professional learning course to help prepare teachers instructing students of color for college and careers.

6.What are your options if you do not want to be in the study?

Your participation in this study is entirely voluntary. You choose whether to participate. If you decide not to participate, there are no penalties, and you will not lose any benefits to which you would otherwise be entitled.

7.Will it cost you anything to be in this study?

No.

8. Will you be paid if you join this study?

No.

9. Can you leave the study early?

- You can agree to be in the study now and change your mind later, without any penalty or loss of benefits.
- If you wish to stop, please tell us right away.
- If you want to withdraw from the study, please email Violet Ford at vford@jhu.edu.

10. Why might we take you out of the study early?

You may be taken out of the study if:

- The study is cancelled.
- There may be other reasons to take you out of the study that we do not know at this time.

If you are taken out of the study early, Johns Hopkins may use or give out your information that it has already collected if the information is needed for this study or any follow-up activities.

11. How will the confidentiality of your biospecimens and/or data be protected?

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the National

Institutes of Health and the Office for Human Research Protections. (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

Surveys and interview notes for the study will be anonymized using participant ID codes in a disaggregated database that will be maintained by the researcher. A file that references the actual names of individuals and their participant IDs will be maintained by the researcher on a password-protected laptop and will be housed separate from survey responses and interview notes. Participant ID codes will be generated by randomly assigning a 2-digit code to each participant. Codes will be numerical (e.g. 01, 02, 09, 12). Video recording data from the interviews will be de-identified through transcription and destroyed after the study.

All research data will be kept in a secured location. Electronic data will be stored on the researcher's computer, which is password protected. Paper documents will be stored in a locked cabinet at the student investigator's work office or home. All data will be backed up bi-monthly on an external hard drive that will be kept in the student investigator's home.

12.What other things should you know about this research study?

What is the Institutional Review Board (IRB) and how does it protect you?

This study has been reviewed by an Institutional Review Board (IRB), a group of people ~~that~~ who reviews human research studies. The IRB can help you if you have questions about your rights as a research participant or if you have other questions, concerns or complaints about this research study. You may contact the IRB at 410-516-6580 or hirb@jhu.edu.

What should you do if you have questions about the study?

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You can ask questions about this research study now or at any time during the study, by talking to the researcher working with you, Violet Ford, student researcher, at (405) 306-6092. If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

Future Contact

We would like your permission for our research team to contact you in the future. Please note that your decision does not prevent other researchers at Johns Hopkins University from contacting you about other research.

Student Researcher/Principal Investigator: Indicate the participant's decision below by checking the appropriate statement:

_____ I agree to allow the research team to contact me in the future and understand that my decision does not prevent other researchers at Johns Hopkins University from contacting me about other research.

_____ I do not agree to allow the research team to contact me in the future and understand that my decision does not prevent other researchers at Johns Hopkins University from contacting me about other research.

13. What does your verbal consent mean?

Your verbal consent means that: You understand the information read to you, you accept the provisions that were stated, and you agree to join the study. You will not give up any legal rights by verbally consenting to join this study.

WE WILL PROVIDE YOU WITH AN ELECTRONIC COPY OF THIS
INFORMED CONSENT SCRIPT

Student Researcher/Principal Investigator: Indicate the participant's decision below by checking the appropriate statement:

_____ I agree to participate in this research study.

_____ I do not agree to participate in this research study.

Date of verbal consent: _____

Phase Three End-User Open-Ended Questionnaire

Module	Please answer the following questions after reviewing each course module.
Module One: Reflection	<p>Which component of the learning module (i.e text, video, practice exercises) did you find most helpful to implement cultural relational pedagogy in your classroom?</p> <p>In what ways did the learning module influence your belief that you can accomplish use of cultural relational pedagogy in your classroom?</p> <p>Rate your degree of confidence or self-efficacy about your perceived ability to use cultural relational pedagogy using the choices listed below, then provide a rationale for your choice:</p> <p>Cannot do at all Moderately can do Highly certain can do</p>
Module Two: Social and Emotional Relationships	<p>Which component of the learning module (i.e., text, video, practice exercises) did you find most helpful to implement cultural relational pedagogy in your classroom?</p> <p>In what ways did the learning module influence your belief that you can accomplish use of cultural relational pedagogy in your classroom?</p> <p>How would you rate your level of efficacy (belief that you can accomplish) use of cultural relational pedagogy? Options: Not confident at all, somewhat confident, fully confident</p>
Module Three: Collaboration	<p>Which component of the learning module (i.e., text, video, practice exercises) did you find most helpful to implement cultural relational pedagogy in your classroom?</p> <p>In what ways did the learning module influence your belief that you can accomplish use of cultural relational pedagogy in your classroom?</p>

Module	<p>Please answer the following questions after reviewing each course module.</p> <hr/> <p>How would you rate your level of efficacy (belief that you can accomplish) use of cultural relational pedagogy? Options: Not confident at all, somewhat confident, fully confident</p>
Module Four: Engagement with the Community	<p>Which component of the learning module (i.e., text, video, practice exercises) did you find most helpful to implement cultural relational pedagogy in your classroom?</p> <p>In what ways did the learning module influence your belief that you can accomplish use of cultural relational pedagogy in your classroom?</p> <p>How would you rate your level of efficacy (belief that you can accomplish) use of cultural relational pedagogy? Options: Not confident at all, somewhat confident, fully confident</p> <hr/>

Appendix F

Focus Group Interview Protocol

I. Introduction - establish rapport, welcome, thank teachers for participating, share personal background information.

To facilitate our notetaking, we would like to video tape our conversations today. You have already signed the release form so we will proceed accordingly. For your information: Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the National Institutes of Health and the Office for Human Research Protections. (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

I have planned this focus group to last no longer than one hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning.

II. Interviewee Background - their names, subject teach, how long they have been teaching

III. Prepared qualitative questions

- What aspects of the professional learning course were you most excited about?
- In what ways did the online course influence your knowledge of cultural relational pedagogy?
- In what ways do you believe the online course could be used as a resource within your educational organization?
- Which component(s) of the learning module were most helpful in developing cultural relational pedagogy?
- What aspects of the learning course were not helpful to you?
- Do you have any recommendations for items that should be added to the learning course?

Appendix G

Exploratory Case Study Demographic Checklist

Demographic Checklist	Participant A	Participant B	Participant C	Participant D	Participant E	Participant F
Age						
Gender						
Ethnicity						
Highest education attained						
Employment role/position						
Geographic Location						
Participant Role						

Appendix H

Exploratory Case Study Design Data Collection Matrix

Research Questions	Construct	Data Source(s)	Data Collection Tool	Data Analysis
Phase One: What are the key professional learning factors that increases teachers' self-efficacy around equitable pedagogy?	Professional learning factors for equitable pedagogy efficacy	Previous studies	Meta-Analysis	
Phase Two: What is the role of the learning course in helping teacher educators or trainers conduct sessions designed to help teachers (pre and in service) implement equitable pedagogy?	Role of learning course to implement equitable pedagogy	Content Expert, Procurer	Open interviews; online open-ended questionnaire; interviews, zoom recording, Zoom transcription	Emergent coding and theme development
Phase Two: Which components of the learning modules were determined to be most helpful to teacher educators or trainers in implementing equitable pedagogical practices in	Most helpful component of learning course	Procurer, End-Users	Structured interviews, Focus Group, zoom recording and transcription	Emergent coding and theme development

Research Questions	Construct	Data Source(s)	Data Collection Tool	Data Analysis
<p>their perspective organizations.</p> <p>Phase Three: In what ways do participants believe completion of the learning course could influence their equitable pedagogy efficacy? (End-Users)</p>	<p>Learning course influence on equitable pedagogy efficacy</p>	<p>End-Users</p>	<p>Focus Group, zoom recording and transcription</p>	<p>Emergent coding and theme development</p>

Appendix I

All Phases Process Evaluation Form (conducted by the researcher)

Questions	Module One	Module Two	Module Three	Module Four
How has the program delivery adhered to or differed from the proposed implementation procedures?				

Appendix J

Procurer Participant Recruitment Email

My name is Violet Ford, and I am a fourth-year doctorate student from the School of Education at Johns Hopkins University. I am writing to invite you to participate as a Procurer participant in my research study about cultural relational pedagogy to support teachers. As a procurer participant you will be asked to review and provide input on the content of an online professional learning course. If you decide to participate in the study, you may be asked to do some or all the following: review an online course, complete four online open-ended questionnaires, and one interview.

Your participation in this research study is strictly voluntary, and you may choose not to participate without fear of penalty or any negative consequences. You will be able to withdraw from the survey at any time if you find the need to do so. There will be no individually identifiable information, remarks, comments, or other identification of you as an individual participant upon publication of the study. All results will be presented as aggregate, summary data.

Your participation will contribute to understanding how the study's online professional learning program might be used to provide support for educators around cultural relational pedagogy. No compensation will be offered for your participation. If you would like to know more information about this study, an information letter can be obtained by sending a request to vford7@jhu.edu.

If you decide to participate after reading this letter, you may respond to this email. If you have any questions, please contact me at vford7@jhu.edu. Thank you very much.

Sincerely,

Violet L. Ford

Johns Hopkins University
Ed.D. Entrepreneurial Leadership Student
2017 Cohort

Appendix K

End-User Participant Recruitment Email

My name is Violet Ford, and I am a fourth-year doctorate student from the School of Education at Johns Hopkins University. I am writing to invite you to participate as an End-User participant in my research study about cultural relational pedagogy to support teachers. As an End-User participant, you will be asked to review and provide input on the content of an online professional learning course. If you decide to participate in the study, you may be asked to do some or all of the following: review an online course, complete four online open-ended questionnaires, and participate in a focus group.

Your participation in this research study is strictly voluntary, and you may choose not to participate without fear of penalty or any negative consequences. You will be able to withdraw from the survey at any time if you find the need to do so. There will be no individually identifiable information, remarks, comments, or other identification of you as an individual participant upon publication of the study. All results will be presented as aggregate, summary data.

Your participation will contribute to understanding how the study's online professional learning program might be used to provide support for educators around cultural relational pedagogy. No compensation will be offered for your participation. If you would like to know more information about this study, an information letter can be obtained by sending a request to vford7@jhu.edu.

If you decide to participate after reading this letter, you may respond to this email. If you have any questions, please contact me at vford7@jhu.edu. Thank you very much.

Sincerely,

Violet L. Ford

Johns Hopkins University
Ed.D. Entrepreneurial Leadership Student
2017 Cohort

Appendices L

Phase One Cultural Relational Pedagogy Online Course Story Board

Script	Action
<p>Pre-Session Webinar</p> <p>Welcome to the Cultural Relational Pedagogy Online Course. In this course you will learn about the four factors of cultural relational pedagogy including reflection, social-emotional relationships, collaboration, and community involvement. There are four modules that will discuss each factor.</p>	<p>Video of Violet talking</p> <p>Four factors flash one at a time as she says them: Reflection</p> <p>Social-emotional relationships</p> <p>Collaboration</p> <p>Community involvement</p> <p>Factors stay on screen until end of sentence.</p>
<p>Each session will include a pre-reflection discussion, a learning resource lesson, a case study, summary, post reflection, and assessment.</p> <p>Before you begin the modules, let's unpack cultural relational pedagogy. Cultural relational pedagogy was developed after a meta-analysis was conducted to research previous experiments that had a goal of increasing teacher efficacy in equitable pedagogy. In short, out of the meta-analysis, there were seven professional learning practices that increased educator efficacy around equitable instruction. However, out of the seven emerging themes. The four factors: reflection, social-emotional relationships, collaboration, and community involvement set a framework for the development of cultural relational pedagogy.</p>	<p>Video of Violet talking</p>
<p>Let's discuss cultural relational pedagogy from a high level view. Looking at this model, we see the four factors. We also see that cultural relational pedagogy is centered on continuous improvement; meaning at any phase, the educator can adjust to the needs of students to more effectively engage students. Additionally, each phase is</p>	<p>Each part of the model will come together electronically like a Rubik's cube as it is discussed.</p>

<p>viewed from an aspect of the educator developing as she or he interacts with their team and also with students.</p> <p>In the reflection phase...</p> <p>In the social emotional relationships phase...</p> <p>In the collaboration phase...</p> <p>In the community involvement phase...</p> <p>Finally, and most critically, educators should note that reflection occurs at each phase of cultural relational pedagogy to ensure a continuous improvement process. See the link below for more information on continuous improvement provided by the Carnegie Foundation.</p> <p>Resource: Continuous improvement is important to providing equitable instructional practices. See link for additional resources for continuous improvement.</p>	<p>“resource” is shown on screen not read</p> <p>Link: https://www.carnegiefoundation.org/resources/publications/continuous-improvement-education/</p>
Lead in sentence to module 1	
<p>References:</p> <p>Carnegie Foundation website</p>	

End-User Recruitment Flyer



PARTICIPATE IN A RESEARCH STUDY

Understanding how to support teacher's
equitable pedagogy practices

OVERVIEW

- review an online course with four modules for usefulness and applicability as an end user
- provide feedback via four feedback forms and one 90 min. focus group interview

ELIGIBILITY

Participants must be teachers in training or teachers in service.

CONTACT:

Violet L. Ford (Doctoral Candidate)
Johns Hopkins University, School of Education
vford7@jhu.edu

Appendix N

Exploratory Case Study Phase One Document Review Template

Type of document (i.e., script, video, website)	Citation	Module Use (i.e., Module One – reflection)

Curriculum Vitae

Violet L. Ford

405.306.6092 | violetlynnford@gmail.com | www.linkedin.com/in/violet-ford

EDUCATION

Johns Hopkins University

EdD, Entrepreneurial Leadership

Baltimore, MD

Expected August 2021

Cumulative GPA 3.67

Dissertation Topic: “Supporting Teacher’s Equitable Pedagogy Practices: Developing an Online Professional Learning Course”

Langston University

Master of Education, Urban Education

Oklahoma City, OK

University of Central Oklahoma

Bachelor of Science, Community Health

Edmond, OK

PROFESSIONAL TRAINING

Diversity, Equity, and Inclusion in the Workplace Certificate

June 2021

Myers-Briggs Type Indicator Certification

June 2017

Lean Six Sigma Yellow Belt Certification

March 2017

PROFESSIONAL WORK EXPERIENCE

Strategic Partnership Development

- Built and maintained trusting relationships with stakeholders and partners through effective communication and interpersonal relationships; created collaborative work group of over 30 partners for after school initiatives
- Strategically developed and executed plans to meet agreed upon partnership outcomes, shared vision, and mission of organization to illustrate partnership alignment
- Exercised fiduciary discretion with partnership funded programs; worked collaboratively to maintain agreed programmatic outcomes with over \$3 million dollars in granted funds
- Pioneered annual STEM outreach; secured over 30 partners to provide hands-on learning opportunities and career/college information
- Developed solid partnerships through seamless leadership resulting in residual commitment from corporate partners and contractors, securing organization's mission statement
- Created and implemented new volunteer recruitment processes to increase volunteer engagement for special events, improved volunteer engagement by 40%

Organizational Leadership

- Managed team of 30, earned the Emerging Leaders Program Award and Employee of the Year
- Created and implemented COLLAB18 (collaboration 2018) campaign to increase internal and external collaborations, improved collaboration by 33% in the first quarter
- Conducted research using qualitative and quantitative analytical skills to develop comprehensive needs assessment to identify educational needs for targeted population, the cause and nature of the gap, and set priorities for future
- Designed organizational change through consulting, crafting unique agency practices including team collaboration, data driven culture climate assessment and leadership buy in; increased collaborative efforts by 33% in first quarter of the year
- Boosted workplace quality and productivity utilizing strategic methods like streamlining reporting procedures, cross training, and leadership development
- Oversaw departmental expenditures upwards of \$3 million dollars using forecasting techniques
- Researched and solicited new funding to support existing and new program initiatives
- Conducted staff performance and program evaluations using performance management principles and coaching techniques to create individual performance plans; evaluated employee needs to develop talent management programs for organizational growth

Program Management

- Developed program design materials including logic model, program road map, and timelines to implement new innovative education initiatives and employee instructional capacity; oversaw successful program outcomes for up to six initiatives annually
- Created start to finish process for program special event projects increasing engagement by 12%

- Performed process improvement and program evaluation using qualitative and quantitative data, following improvement science methods; PDSA Cycle: Plan, Do, Study, Act
- Fostered stakeholders' interest through efficient strategic planning and flexible communication
- Directed federal grant projects successfully for Boeing, Dell, National Urban League and OK State Department of Education, U.S. Department of Education, and Office of Juvenile Justice and Delinquency Prevention
- Managed program evaluation(s) matrix offering compliance tactics for desired reporting
- Analyzed and reported effectiveness, efficiency, and productivity of administrative and technical programs such as data systems, information management, and personnel as related to logistics support

Training & Development

- Designed and built effective, measurable instructional materials for online courses, in-person, and virtual instructor-led delivery with defined instructional, learning, or performance outcomes.
- Conducted detailed needs assessments to adapt instructional content, catered to adult learners
- Conceptualized and created storyboards for instructionally sound, interactive, engaging web-based course components.
- Conducted job task analysis to align job functions with instructional need and content
- Provided instructional design consultation to faculty of partners/clients and/or subject matter experts in the development of contextually rich, engaging, and objective-driven courses and learning experiences that focus on applicable real-world/workplace skills
- Conducted quality assurance reviews on courses and implemented revisions
- Aligned public media with educational needs of low performing, at risk targeted population
- Facilitated train the trainer Project Based Learning techniques and processes
- Developed the agencies first family resource guide in eBook format
- Designed and delivered professional development for community agencies including educational program subject matter, curriculum, and leadership development
- Developed new courses and analyzed current courses to identify needed instructional support such as lesson plan development, content accuracy, and graphic update design
- Managed mandated course updates to resolve issues, improve trainings, and correct deficiencies through the Learning Management System

EMPLOYMENT HISTORY

Management & Program Analyst, April 2019 to present

S & K Engineering & Research, Oklahoma City, OK

Education Consultant, December 2017 – March 2019

Oklahoma Education Television Authority, Oklahoma City, OK

Education Consultant, July 2017 to December 2018

Up World, Inc., Chicago, IL

Director of Education and Program Compliance, June 2012 - September 2018

Urban League of Greater Oklahoma City, Inc., Oklahoma City, OK

Director of Services, Sept 2011 to June 2012

Positive Solutions Youth & Family Services, Midwest City, OK

Instructor/Curriculum Developer, Dec 2011 - May 2012

Empower Oklahoma, Oklahoma City, OK

Technical Writing, Adjunct Instructor, Jan 2009 - May 2010

Oklahoma State University, Oklahoma City, OK

Instructional Designer, Oct 2008 - Jul 2010

Raytheon Professional Services, Oklahoma City, OK

PUBLICATIONS

Cultivating the Entrepreneurial Mindset in Today's Small Liberal Colleges and Universities (Green, Taylor & Ford, 2020)

TRAINING DEVELOPMENT/PRESENTATION EXPERIENCE

Developing Strategic Work Systems for Admin Support Teams

Crutch Public Schools, 2021

Unboxed: The Elephant in the Room – Supporting Teachers in Equitable Instruction and Social Emotional Classroom Environments

Thick Descriptions, 2021

Cultural Relational Pedagogy Online Professional Learning Course

Publication pending, 2021

Cultivating the Entrepreneurial Mindset in Today's Small Liberal Colleges & Universities

Research Presentation at Institute of Global Business Research Conference, 2019

Transformative Learning and Collaboration in the Workplace

LinkedIn SlideShare, 2019

Equitable Career Readiness Preparation for Poor, Ethnic Minorities

LinkedIn SlideShare, 2018

Intentional Leadership Planning for Team Growth

Intertwined Consulting Group, 2018

Intentional Work Life

Crutch Public Schools, 2018

Ramp Up for the New Year Team Building

Urban League of Greater Oklahoma City, Inc., 2018, 2017, 2016, 2015

Gear Up for Summer Team Building

Urban League of Greater Oklahoma City, Inc., 2018, 2017, 2016, 2015

Flip that Classroom!

Urban League of Greater Oklahoma City, Inc., 2017

Game of Life Team Building

Urban League of Greater Oklahoma City, Inc., 2017

In Career Project

Up World, Inc., 2017

Intentional Life Lab – Self Love Method

Intertwined Consulting Group, 2017

Intentional Planning for Intentional Communities

Urban League of Greater Oklahoma City, Inc., 2014

Solidarity with the Savior through His Word

Western Region Youth Conference, 2011

Solidarity through His Worship

Western Region Youth Conference, 2012

Solidarity through His Works

Western Region Youth Conference, 2013

COMMUNITY PROJECT DEVELOPMENT/IMPLEMENTATION**Service + Learning + Leadership**

Service-Learning Project

Infinite Possibilities, summer 2019

Think Like a Girl

STEM and Empowerment Initiative

Infinite Possibilities, summer 2015, 2016, 2017, 2018

ACHIEVEMENTS AND INVOLVEMENT

Jack and Jill of America, Inc.

Member

Strategic Planning Committee Chair
2019 to present

Employee of the Year

Urban League of Greater OKC, Inc.
2014

University of Central Oklahoma Foundation

Board Member
2018 to present

Oklahoma's Top 40 Under 40

Oklahoma Magazine
2014

Johns Hopkins School of Education Merit Scholarship
2017, 2018, 2019, 2020

Rising Star Award

National Urban League
2014

Emerging Leaders Program

Duke Corporation & National Urban League
2016

Delta Sigma Theta Sorority, Inc.

Member
1996 to present

Eddie L. Moore Caring Adult of the Year

National Urban League
2016

Leadership OKC Class of XXXIII

Member
2015 to present

Dream Builder Award

Class Matters, Inc.
2015