Mindset Over Methods

A Mixed-Methods Study on Culturally Responsive Teaching and Teacher Efficacy

by

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ABSTRACT

Disparities in schooling in the United States have been well-documented and researched, along with pedagogies that strive to create equitable learning environments. One such inequity is the overrepresentation of novice teachers in low-income and culturally diverse schools. Novice teachers have been found to have lower self-efficacy and leave the profession at a higher rate than veteran teachers. High self-efficacy beliefs have been correlated with better student outcomes. Therefore, the overrepresentation of novice teachers in low-income schools is yet another inequity. This mixed-methods, phenomenological study answered the following research question: How does awareness of Culturally Responsive Teaching affect novice teachers' self-efficacy? There are two theories being used in this research project, Teacher Efficacy and Culturally Responsive Teaching. The results of the study showed that attending three mindset-focused professional developments on Culturally Responsive Teaching improved novice teachers' self-efficacy in student engagement, instructional strategies, and classroom management. Based on these promising outcomes, it is suggested that pre-service and novice teachers be provided with Culturally Responsive instruction opportunities and mentorship. Further research should be done with larger sample sizes and with classroom observations.

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This paper is dedicated to my students who inspire and challenge me daily to be a better teacher every day.

It is also dedicated to my little baby "Lentil." I have not had the pleasure of meeting you yet, but this is for you.

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As a student of ASU, I acknowledge that the Tempe campus sits on the ancestral homelands of those American Indian tribes that have inhabited this place for centuries, including the Akimel O'odham (Pima) and Pee Posh (Maricopa) peoples.

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CHAPTER 1

INTRODUCTION

It has been well documented that there are disparities in schooling between ethnically and culturally diverse students and white, Euro-centric students. These disparities are evident across socio-economic status, as well. Nationwide, Black, Latino/a, Pacific Islander and Indigenous students are over-represented in mid- to highpoverty levels (US Department of Education, 2019a). Schools in which >40% of its student body qualifies for free or reduced lunch are provided Title I funding (Sparks, S. D., 2020) and often referred to as "Title-I Schools." In Arizona, students in Title-I schools are more likely to have an inexperienced and emergency-certified teacher than their counterparts in non-Title I schools (Arizona Department of Education, 2022). As of 2016, students of color miss more class time than their white classmates due to disproportionate out-of-school suspensions (US Department of Education, 2019b). Black students, as well as students with low socioeconomic status, are more likely to attend a school with fewer resources resulting in negative effects on academic outcomes (American Psychological Association, 2017). Additionally, research has shown that non-Black teachers have lower academic expectations for their Black students (Cherng, 2017). These inequalities have been addressed by educators and researchers, resulting in numerous theories and pedagogies to remedy not only these symptoms, but the unjust social systems that created them.

One such pedagogy that was produced in the 1990s and continues to be practiced and built upon today is Geneva Gay's (2000) Culturally Responsive Teaching. Her pedagogy is based on the understanding that all students deserve the opportunity to construct new knowledge based on their lived experiences. However, due to the disproportionately high number of white, English speaking teachers, many students'

cultural frames of reference are neglected in the classroom. Therefore, their opportunities to construct their learning from their lived experiences is severely diminished. Geneva Gay developed this pedagogy as a mindset for teachers to be able to learn and implement so that every student, regardless of race, gender, ethnicity, langage, or SES status, would be able to connect to their learning. This pedagogy exists to create equitable classroom environments for all students.

Another factor that impacts the effectiveness of a teacher is their belief in their ability to educate their students. This belief in one's own abilities is referred to as selfefficacy. In education, a large body of research has been conducted on Teacher Efficacy. Teacher efficacy can be broken up into three domains: student engagement, instructional strategies, and classroom management. It has been found that teachers with high efficacy have better student engagement, are more likely to support failing students, and are more likely to persevere. The research discussed in this paper answers the question, "How does awareness of Culturally Responsive Teaching (CRT) affect novice teachers' self-efficacy?" The statistics show that ethnically diverse and low SES students are more likely to have novice teachers and that approximately 50% of novice teachers leave the profession within five years. Given this information, it is important to discover what might be done to support teachers in persevering and doing so in a way that best serves their students. This mixed-methods, phenomenological study provides promising evidence that receiving professional development in CRT has a positive effect on all three domains of Teacher Efficacy. The intention of this study is to increase the awareness of the all-around positive impact CRT has on the confidence of novice teachers in hopes that professional learning on CRT will become more widely available for pre-service and novice teachers.

CHAPTER 2

LITERATURE REVIEW

This paper seeks to answer the following research question: How does awareness of Culturally Responsive Teaching affect novice teachers' self-efficacy? There are two theories being used in this research project, Teacher Efficacy and Culturally Responsive Teaching. Both theories make up the theoretical framework. The theoretical framework will be explained before reviewing the relevant literature in order to define and contextualize both theories. This will provide clarity to the findings from the literature review.

Theoretical Framework

Two theories are being used in this study to answer the research question of how developing an awareness of CRT affects novice teachers' self-efficacy. The first theory is Teacher Efficacy based on Albert Bandura's (1977) theory of self-efficacy. The second theory is Culturally Responsive Teaching developed by Geneva Gay (2000). This study aims to uncover a reciprocal relationship between the two theories.

Teacher Efficacy

Albert Bandura (1977) theorized self-efficacy and outcome expectancy while continuing his work on predicting human behavior with his Social Cognitive Theory. Self-Efficacy is the belief one has in themselves to perform the task necessary to produce the desired outcome. Self-efficacy was theorized in tandem with outcome expectancy, which refers to one's belief that performing a particular task results in a particular outcome (Bandura, 1977). Bandura discovered that self-efficacy was a better predictor of human behavior than past experiences (successes or failures). According to the theory, an individual will first decide if they believe performing a given task will result in the

outcome they anticipate. If so, they subsequently gauge if they are capable of performing the task adequately enough to achieve the outcome (Bandura, 1977). Bandura discovered four sources of self-efficacy: performance accomplishments, verbal persuasion, vicarious experience, and physiological states. High self-efficacy is associated with exerting more effort, a willingness to try new things, and persistence when faced with challenges (Bandura, 1977). Teacher efficacy was built upon this theory as well as a second theory by Julian Rotter.

Rotter's (1966) theory of Internal Versus External Control Of Reinforcement, more commonly known now as Rotter's Locus of Control theory (LOC), was also realized under the umbrella of Bandura's Social Cognitive Theory. Rotter theorized that positive reinforcement only impacts human behavior when the individual believes the reinforcement was a direct result of their efforts and actions. This is referred to as internal control. When an individual believes in internal control, they repeat the behavior that yielded the desired outcome. However, if one believes that the reinforcement was not related to their efforts, it is external control and does not influence future decision-making. The reverse holds true, as well; if an individual believes their actions are the cause of a failure, they take responsibility. An individual who believes in an external LOC will attribute their successes to luck or fate and blame their failures on external factors (Rotter, 1966). Individuals who have a strong belief in their internal control had four commonalities: (1) heightened awareness of the resources available to them, (2) agentic in improving their environments, (3) placed more value on their skills and achievements and took their failures more seriously, (4) aware of and resisted negative influences (Rotter, 1966).

These theories were quickly adapted to the field of education as they continued to produce promising results. The theory of Teacher Efficacy (TE), developed and redefined

from the 1980s through the early 2000s, explains and predicts teacher behaviors based on the teachers' beliefs in their ability to successfully perform teaching tasks to achieve the desired outcomes (Tschannen-Moran et al., 1998). Outcome expectancy under the theory of TE serves the same function as it does in Self Efficacy. However, there is another sub-theory that will be discussed in this paper known as General Teacher Efficacy (GTE). General Teacher Efficacy is reminiscent of Rotter's LOC. It measures a teacher's belief that teachers in general can overcome external variables to be successful in educating their students (Gibson & Dembo, 1984; Tschannen-Moran et al., 1998). Essentially, it measures whether they believe their success and their students' success (or lack thereof) is a result of their teaching abilities, or if it is a result of their school environment, students' home lives, and other factors.

It is important to define these terms due to the nonlinear development of the concept of Teacher Efficacy (TE) itself. Around the same time that education researchers began interrogating Bandura's self-efficacy's role in teaching, a survey by the RAND organization was distributed to teachers to measure their effectiveness that contained two questions that were related to LOC (Gibson & Dembo, 1984). While Self-Efficacy and LOC are both sub-theories of Bandura's Social Cognitive Theory, making them very similar, they became conflated in TE research (Tschannen-Moran & Woolfolk Hoy, 1998). Researchers were measuring two distinct concepts under the same name. This began when Gibson and Dembo (1984) created the Teacher Efficacy Scale which became the predominant measurement tool for self-efficacy beliefs. They theorized a two-fold understanding of TE: Personal Teaching Efficacy (PTE), what we now refer to simply as teacher efficacy, and General Teacher Efficacy (GTE) as previously defined (Gibson & Dembo, 1984). While PTE is aligned with self-efficacy, GTE was assumed to be

measuring teachers' outcome expectancies but was actually measuring their internal vs. external control beliefs (Tschannen-Moran & Woolfolk Hoy, 1998).

Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) identified this misconception and produced their own scale, Teacher Sense of Efficacy (TSES), that has been widely accepted and used within Teacher Efficacy research (Tschannen-Moran & Woolfolk Hoy, 2001; Klassen, 2011). This scale became popular due to its level of specificity to three domains of teaching while still being generalizable. The three domains measured by the scale are instructional strategies, student engagement, and classroom management (Tschannen-Moran & Hoy, 2001). Since then, a significant body of research has been published under Teacher Efficacy using various methodologies and domain specificity. This study uses Teacher Efficacy as a framework for understanding how awareness of Culturally Responsive Teaching impacts novice teachers' beliefs in their teaching abilities, their perseverance, and their sense of responsibility for student outcomes.

Culturally Relevant, Responsive, and Sustaining Teaching

Geneva Gay's theory of Culturally Responsive Teaching was built upon the work of other pedagogues who sought to eradicate in the injustices in education through the critically educating vulnerable populations. Paulo Freire (1970) critiqued the educational methods of the time and developed the concept of liberatory education that recent CRT researchers have used as a base. Freire theorized liberatory education out of critiquing what he termed the "banking model" of education. In this model, students from low SES backgrounds are empty vessels into which teachers must deposit knowledge. Not only is learning decontextualized and ineffective through this method, it is also based on what is now called a deficit mindset (Hammond, 2021). To combat this model, he proposed liberatory education which relies on teachers "mining" for students' knowledge or lived experiences as reference points to understand the world around them (Freire, 1970). In

doing so, the students are able to identify the inequalities that have impacted their lives. This motivates the students to continue learning so that they can overcome these inequalities to liberate themselves, and ideally use this knowledge to participate in the liberation of others. Moving from a deficit perspective to an asset pedagogy (Gay, 2000) in which teachers value students' cultures and lived experiences as sources of knowledge, Freire set an example for new pedagogies that broaden students' scope past SES and towards race and language.

Culturally Responsive Teaching (CRT) is a pedagogy developed by Geneva Gay in 2000 (Gay, 2002). Gay defines CRT as "using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively" (2002, pp 106). Five elements that comprise this pedagogy: a) knowledge of cultural diversity, b) ethnic and cultural diversity in the curriculum, c) caring learning communities, d) communication with ethnically diverse students, and e) responding to ethnic diversity in instruction delivery. Diversifying the curriculum cannot be accomplished by adding a few books on race or social justice (Hammond, 2021). Teachers must evaluate their formal curriculum to assess its degree of cultural relevance and representation, and then enrich it by incorporating symbolic and societal curriculum. A formal curriculum is a standards-based sequence of instruction the teacher must follow based on school or district guidelines. Symbolic curriculum refers to what the students see in the classroom in terms of representation such as posters and bulletin boards. The societal curriculum is the real-world media and resources with which students interact. Together, these curricula provide ample opportunity to validate students' cultures through schooling while also challenging them to use what they have experienced to critique reality (Freire, 1985). CRT builds upon the work of Paulo Freire's Liberatory Education and Gloria Ladson-Billings' Culturally Relevant Pedagogy.

In the 1990s, teacher researchers in the United States produced numerous pedagogies based on asset pedagogy and incorporating home culture and communication styles into instruction to improve academic outcomes for historically marginalized populations. Ladson-Billings expanded upon these studies and theorized Culturally Relevant Pedagogy (CRP). In studying exemplary teachers of Black children, she discovered three pillars of their mindsets that led to their success: academic achievement, cultural competence, and critical consciousness. These teachers provided rigorous instruction and learning expectations for all students because the teacher believes in the educability of every student. This component is supported by Freire's call to be "patiently impatient" (Freire, 1985, pp 16) in that the teacher should be eager to assist students in achieving excellence, but pace their instruction to ensure students' success. Cultural competence is achieved through valuing and incorporating students' cultures and foreign cultures throughout teaching and learning. Doing this helps ensure that students can be academically successful without alienating themselves from their culture. This leads to critical consciousness; a student's education should include learning to reflect on their lived experiences and problematize the inequities that they have seen or experienced. In doing so, the teachers validate the students' experiences and knowledge, while preparing them to be successful in an unjust social system and to be prepared to challenge said systems. (Ladson-Billings, 1995).

Paris and Alim (2014) offered a "loving critique" to CRT and CRP to advance its effectiveness through their theory of Culturally Sustaining Pedagogy. Culturally Sustaining Pedagogy (CSP) is built upon CRP and CRT but pushes it forward with three critiques. Previously, teachers were encouraged to teach students to be fluent in the dominant culture to ensure their future success, however, that dominant culture is no longer the sole access point to power. Recently, multilingualism, being fluent in multiple

languages/communication styles across evolving cultures, has proven to be beneficial. The phrase "evolving cultures" is used in reference to their second critique. Many teachers and researchers have a static view of cultures and are not recognizing, and therefore not integrating, the ways communities have developed in new directions that build upon or even diverge from their traditional cultures. The authors coined the terms heritage practices and community practices to differentiate between sustaining both students' traditional heritage while also recognizing, incorporating, and thereby sustaining their ever-changing community practices. Finally, they invite academics and teachers to take a critical lens to youth culture, and not blindly praise it for its cultural value. This does not mean avoiding or dismissing youth culture, but to examine its role in challenging, reproducing, or creating social injustices.

CRT, CRP, and CSP share the same goal of creating equitable learning experiences for all students that honor their cultures and communities to end the reproduction of inequalities through schooling. This study focuses on CRT with attention to the critiques of CSP. While CRP is foundational in liberatory education, CRT delineates the skills and understandings teachers must attain to be culturally relevant. CST has offered valuable critiques for moving forward in Liberatory Education but is lacking in research and resources from which the participants can learn. For these reasons, CRT is being used in this study. When CRT is referenced, it is with the understanding that CSP has brought to the attention of Culturally Responsive Teachers. The language derived from CSP such as heritage practices and community practices will be used throughout this paper in addition to the terms more commonly associated with CRT. The three pedagogies are can be distinguished from one another in the following table:

Table 1Culturally Relevant, Culturally Responsive, and Culturally Sustaining Pedagogies

	Culturally Dolovont	Culturally	Culturally
	Culturally Relevant Pedagogy	Culturally Responsive	Culturally Sustaining
	redagogy	Pedagogy	Pedagogy
Author	Dr. Gloria Ladson-		
Author		Geneva Gay (2000)	Django Paris and
	Billings		H. Samy Alim
O T 1	(1995)	. 77 1 1	(2014)
Core Tenets	1. Academic Excellence	4. Knowledge of cultural	9. Foster multicultura
	2. Cultural	diversity	lism and
	Competency	5. Ethnic and	multilingual
	3. Critical	cultural	ism
	Consciousn	diversity in	10. Sustain
	ess	the	Heritage
	C	curriculum,	and
		6. Caring	Community
		learning	Practices
		communitie	11. Teach
		s,	Critical
		7. Communica	Reflexivity
		tion with	
		ethnically	
		diverse	
		students	
		8. Responding	
		to ethnic	
		diversity in	
		instruction	
Theorem	I adam Dillings	delivery	Davis and Aline
Theory Development	Ladson-Billings developed this	Gay developed Culturally	Paris and Alim developed this
Development	theory/pedagogy as	Responsive	theory/pedagogy to
	a result of a	Teaching to	improve upon the
	longitudinal study	improve the	previous work done
	on successful	academic outcomes	by Ladson-Billings
	teachers of African	of culturally diverse	and Gay. They
	American students.	students. The	discovered that as
	She discovered that	pedagogy was	these pedagogies
	while the teachers	created based on	were disseminated
	had varying	"research findings,	from higher
	teaching personas	theoretical claims,	education level to
	and instructional	practical	classroom teachers,
	methods, they	experiences, and	the pedagogies had
	shared the same	personal stories of	been simplified.
	pedagogical	educators These	Teachers were

choices. These	data were produced	operating from a
shared pedagogical	by individuals from	static
beliefs became the	a wide variety of	understanding of
three tenets of	disciplinary	culture, and
Culturally Relevant	backgrounds	thereby not being
Pedagogy.	including	relevant or
	anthropology,	responsive to
	sociology,	students' nuanced
	psychology,	cultures.
	sociolinguistics,	
	communications,	
	multicultural	
	education, K-	
	college classroom	
	teaching, and	
	teacher education"	
	(Gay, 2001).	

Culturally Responsive Teaching

In the wake of Ladson-Billings' Culturally Relevant Pedagogy and Gay's Cuturally Responsive Teaching, a significant amount of research has been done validating the successes of both theories in improving academic achievement amongst ethnically and culturally diverse students. CRT was proven to be effective in academic achievement (Byrd, 2016; Cholewa et al., 2014; Wah & Nasri, 2019; Wiggan & Watson, 2016), social and cultural consciousness (Byrd, 2016; Wiggan & Watson, 2016), and emotional well-being of students of color (Cholewa et al., 2014). Cholewa et al. (2014) found that students who learn from a Culturally Responsive teacher "demonstrated behaviors depicting a number of [Relational Cultural Theory]'s five good things, including zest, empowerment, connection, clarity, and self-worth" (Cholewa et al., 2014, pp 1). In addition to the successes, the theory has struggled with an oversimplification of CRT in practice, a lack of wide-scale studies directly linking CRT with student learning outcomes (though the few that have conducted such studies have shown its effectiveness), and political backlash (Sleeter, 2012). Paris and Alim (2014) offered a "loving critique" to

CRP and CRT to advance its effectiveness through their theory *Culturally Sustaining*Pedagogy.

Culturally Sustaining Pedagogy (CSP) is built upon CRP and CRT but advances them with three critiques. Previously, teachers were encouraged to teach students to be fluent in the dominant culture to ensure their future success, however, that dominant culture is no longer the sole access point to power. Recently, *multilingualism*, being fluent in multiple languages/communication styles across evolving cultures, has proven to be beneficial. The phrase "evolving cultures" is used in reference to their second critique. Many teachers and researchers have a static view of cultures and are not recognizing, and therefore not integrating, the ways communities have developed in new directions that build upon or even diverge from their traditional cultures. The authors coined the terms *heritage practices* and *community practices* to differentiate between sustaining both students' traditional heritage while also recognizing, incorporating, and thereby sustaining their ever-changing community practices. Finally, they invite academics and teachers to take a critical lens to youth culture, and not blindly praise it for its cultural value. This does not mean to avoid or dismiss youth culture, but to examine its role in challenging, reproducing, or creating social injustices.

CRP, CRT, and CSP share the same goal of creating equitable learning experiences for all students that honor their cultures and communities to end the reproduction of inequalities through schooling. This study focuses on CRT with attention to the critiques of CSP. While CRP is foundational in liberatory education, CRT delineates the skills and understandings teachers must attain in order to be culturally relevant. CRT also has more research, resources and therefore recognition among practicing teachers than CSP. For these reasons, I decided CRT would be the most accessible and useful for the novice teachers participating in the study. When CRT is

referenced, it is with the understandings that CSP brought to the attention of Culturally Responsive Teachers. I will use the language derived from CSP such as heritage practices and community practices in addition to the terms more commonly associated with CRT.

Cultural scaffolding to increase equity in schooling

CRT aims to create equitable and just learning experiences for all students, not just the students who are members of the dominant social group. To do this, Culturally Responsive teachers must understand and become fluent in their students' cultural and community norms before they can begin crafting their pedagogy (Freire, 1985).

Incorporating students' cultures into the curriculum to provide them with a frame of reference from which to construct new knowledge is called cultural scaffolding (Gay, 2002). Cultural scaffolding is linked with improved student achievement (Byrd, 2016). The author of "Culturally Responsive Teaching and the Brain," Zaretta Hammond (2021) explains the biological significance of cultural scaffolding:

... culture—how one makes meaning of the world based on shared beliefs, norms, cosmology, and so forth—is the software to the brain's hardware. Cultural mental models, understandings, and experiences create cognitive "hooks" or reference points that help to organize our schema into a knowledge network that facilitates our understanding of how things work (pp 7)

Cultural Scaffolding cannot be simplified into adding a few representational posters or books whilst using old instructional strategies. It requires the teacher to "craft cognitive hooks between their funds of knowledge and the standards-based content" (Hammond, 2021, pp 7). When a teacher is unfamiliar with their students' heritage and community practices, they cannot create that pedagogical bridge between lived experiences and the grade-level content (Villegas & Lucas, 2002).

Because cultural scaffolding along with other elements of CRT honors students' prior knowledge and their informal learning (Hammond, 2021), students are not forced to choose between academic success and maintaining cultural ties as they have previously (Ladson-Billings, 1995). In fact, CRT practices are known to assist students in developing positive ethniracial identities (Byrd, 2016) which has been shown to improve academic performance as well as persistence (RivasDrake et al., 2014 as cited in Byrd, 2016). Teachers must be familiar with their students' heritage and community practices such as with how respect is shown between a child and an adult, if they live and work communally or individually, the gender roles in their culture, and how they are motivated. When teachers are not familiar with their students' cultures, students become "intellectually silenced" since they are unable to communicate in the way that they are most fluent (Gay, 2002, pp 111). Hammond (2021) cites the concept of integration to defend the use of CRT practices. *Integration* explains that the brain, being housed within a cultural, physical, and emotional being, will not engage in meaningful learning unless the individual feels physically and emotionally safe. CRT has specifically been shown to increase academic achievement and emotional well-being in students of color who have experienced discrimination (Cholewa et al., 2014). Teachers who employ CRT provide that emotional safety so that students who have experienced intolerance have an equitable opportunity to learn.

Cultural scaffolding provides an equitable learning environment for ethnically and culturally diverse students by providing them the learning environment and opportunities that white, Euro-centric students have already had access to (Gay, 2002). However, assuming that incorporating students' culture into curriculum and instruction is the extent of cultural scaffolding would be false. To create sustainable equity, a student's education should include learning to reflect on their lived experiences and

problematize the inequities that they have seen or experienced (Freire, 1985). In doing so, the teachers validate the students' experiences and knowledge, while preparing to be successful in an unjust social system and to be prepared to challenge said systems (Ladson-Billings, 1995, Villegas & Lucas, 2002). Teachers must teach students how to operate within the dominant culture to ensure their success without upholding it as the "correct way." Instead, these tools should be accompanied by guidance on critical thinking and how to problematize the existence of a dominant culture (Gay, 2002; Ladson-Billings, 1995; Villegas & Lucas, 2002). Learning about social inequalities has been shown to have an adverse effect on sense of belonging (Byrd, 2016). Therefore teachers should heed Villegas & Lucas's advice to teach with the intent of motivation:

"... the challenge is to encourage critique and hope in equal measure" (Villegas & Lucas, 2002, pp 24).

Counteracting the deficit mindset through high academic expectations

Ladson-Billings (1995) Culturally Relevant Teaching holds academic achievement as one of its three core goals. By setting high expectations for student learning, the teacher is recognizing the value of students' diverse cultures and the knowledge they bring with them to school. Therefore, setting low expectations of students would be indicative of a deficit mindset (Villegas & Lucas, 2002). Clycq et al. (2014) define *deficit mindset* as "the general idea that the (supposedly) meritocratic educational system itself is not to blame and the denial that it (un)consciously hinders social mobility, as it is the individual (or specific subgroups) that does not succeed within the system" (pp 798). The deficit mindset is often used alongside socioeconomic, ethnic, and racial stereotypes to explain the disparities in achievement (Owens, 2020). It is with this thinking that the unjust social system is reproduced.

Deficit thinking is pervasive. It exists in both the school as a system of social reproduction and individual teachers' beliefs towards children of low SES and students whose cultural and ethnic backgrounds are different from the dominant social group (Clycq et al., 2014). The school system operates to reproduce injustices in the current social hierarchy through the guise of meritocracy:

Those deemed meritorious are promised access to the higher status positions, whereas those found lacking in merit are told they must be content with the lower status positions because that is all they have earned. This ideological formulation, which is deeply ingrained in the everyday consciousness of most people in this country, validates social inequality by portraying it as a necessary device for motivating talented individuals to achieve high-status positions. It also justifies the existing social order by giving it normative dignity— that is, treating it as the natural order within a meritocracy in which some "deserve" more benefits due to their greater talent and effort. In this process, the system of domination is perpetuated (Villegas & Lucas, 2002, pp 22).

Due to meritocracy and deficit mindset, when the statistics identify learning outcome disparities between students of the dominant group and students from historically marginalized groups, the conclusion they draw is to blame the victim rather than reflect on how schools have created these inequalities (Clycq et al., 2014). According to Hammond's (2021) research, adverse life experiences do not predict a person's cognitive capacity and do not stop their learning. Therefore, it is the teacher's responsibility to recognize the system, reject the deficit mindset, and apply CRT to provide equitable learning to their students.

CRT strives for equitable learning and maintains students' academic achievement is paramount. This is accomplished by employing the five elements of CRT; teachers

must validate students' experiences, incorporate their heritage and community practices to construct knowledge with them, and create *caring* learning communities. "Teachers have to care so much about ethnically diverse students and their achievement that they accept nothing less than high-level success from them and work diligently to accomplish it" (Gay, 2002, pp 109). Teachers, especially white teachers, must be reflexive to ensure that they are not holding any savior beliefs. The savior complex is built upon a deficit mindset, that culturally and ethnically diverse students are failing, lack support, and require someone from the dominant group to save them by teaching them the "right" way. This complex reinforces the dominant ideology (Freire, 1985) and results in the teacher having lower expectations, and therefore not motivating students to move beyond their current level (Ladson-Billings, 1995). Instead, by valuing students' knowledge and the knowledge they bring from their community, they refuse the deficit mindset and replace it with the sense of responsibility that they are responsible for students' success or lack thereof (Ladson-Billings, 1995).

Self Efficacy and Teacher Efficacy

While many teachers recognize CRT as best practice, that does not mean that it is utilized by said teachers. One of the factors contributing to this disconnect is teacher efficacy. *Teacher Efficacy* (TE) refers to a teacher's belief in their ability to perform teaching tasks adequately to result in the desired student outcomes (Tschannen-Moran & Woolfolk Hoy, 2001). The theory of TE is built upon the two related theories: Albert Bandura's (1977) Self- Efficacy and Julian Rotter's (1966) Internal versus External Control of Reinforcement theory, better known as Locus of Control theory.

Self efficacy and Locus of Control

Theorizing on self-efficacy began in the 1960s and 1970s with Albert Bandura with a related concept being theorized by Julian Rotter, Albert Bandura's (1977) continued research on his theory of Social Cognitive Theory resulted in his theory of selfefficacy and outcome expectancy. His work focused on theorizing how to change and predict human behavior. He defined Self-Efficacy as the "conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977, pp 193). His research resulted in the conclusion that self-efficacy is a better predictor of behavioral change than past performances: "Efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences" (Bandura, 1977, pp 194). Julian Rotter, also researching Social Cognitive Theory, developed his own theory in 1966, the theory of Locus of Control (LOC). His theory holds that humans do not change their behavior unless they believe that the resulting consequences of their actions were a direct result of their behavior, and not the result of an external factor. In the 1980s, Albert Bandura (1982) produced another report that showed that people with higher self-efficacy not only displayed better performance, but also lower stress levels. It was around this time that the theories of self-efficacy and LOC were being adopted into the field of education.

Rotter's findings when researching the effects of LOC are significant in how they connect to teachers' deficit mindsets towards students and communities as well as the positive mindset required to be a culturally responsive teacher. His research found that the individuals who have a strong belief in their internal control had four commonalities; they had a heightened awareness of the resources available to them, they were agentic in improving their environments, they placed more value on their own skill and achievements and took their failures more seriously, and finally they were aware of and resisted negative influences (Rotter, 1966). Some examples of how these results are

related to CRT are as follows. Culturally responsive teachers must evaluate their curricula for its cultural relevance and supplement it (seeking out resources). Schools are structured to serve the dominant group creating what can be a hostile environment for students who are not members of the dominant group. Therefore, it is the teacher's responsibility to create a safe place for learning within their classroom community (agentic in improving environment). Culturally responsive teachers do not rationalize student failure with a deficit mindset, but reflect on how to improve their instructional strategies to better meet the needs of the students (take responsibility for success and failure). Finally, culturally responsive teachers must take a critical lens to their schools, their formal curriculum, as well as the messages they receive from their teaching community about their students such as stereotypes and biases (resisting negative influences). Due to this, this study will refer to Bandura's teacher efficacy and outcome expectancy as well as Gibson & Dembo's General Teacher Efficacy that was built on LOC.

Teacher efficacy

Teacher efficacy was born out of the research on Bandura's self-efficacy theory as well as Rotter's LOC. Around the same time that education researchers began interrogating self-efficacy's role in teaching, a survey by the RAND organization was distributed to teachers to measure their effectiveness that contained two questions that were related to LOC (Gibson & Dembo, 1984). Self-Efficacy and LOC are both subtheories of Bandura's Social Cognitive Theory making them related, though distinct concepts. In 1984, Gibson and Dembo Teacher Efficacy published a paper on Teacher Efficacy that identified traits of high-efficacy teachers. A significant finding from this paper was that teachers with high self-efficacy beliefs will persist in failure situations. They observed that high-efficacy teachers will assume responsibility when a student is failing and persist in developing strategies to support the student. (Gibson & Dembo,

1984). It was in this paper that they offered their Teacher Efficacy Scale as a measurement tool for TE research. This scale was widely used in the following decade of Teacher Efficacy research until Tschannen-Moran & Woolfolk Hoy (1998) recognized a misconception within their research and identified how it had obscured the definition of Teacher Efficacy.

In 2001, Tschannen-Moran & Woolfolk Hoy produced their own scale, the Teacher Sense of Efficacy Scale (TSES), that has since been widely accepted and used within Teacher Efficacy research (Tschannen-Moran & Woolfolk Hoy, 2001; Klassen, 2011). Hoy & Spero (2005) conducted a study using the TSES to follow novice teachers' sense of efficacy levels from pre-service teaching through their first year. They found the sense of efficacy increased during student teaching but decreased during their first year of teaching. They also discovered that novice teachers will lower their standards in order to protect their sense of accomplishment, and thereby their sense of efficacy. When considering that the ratio of novice to veteran teachers at Title I schools is inequitable with more novice teachers educating low-income students (Rivera Rodas, 2019), it increases the inequity that the novice teachers are more likely to lower their educational standards for their students. In another study on novice teachers in 2014, Meristo and Eisenschmidt reported that approximately half of novice teachers leave the profession within the first five years, and that low self-efficacy is frequently listed as a reason for leaving the profession. Their study showed that novice teachers displayed low levels of student engagement. A positive finding from this study was that the novice teachers did have high efficacy beliefs in their abilities to form trusting relationships with their students.

A significant body of research has been published under Teacher Efficacy using various methodologies and domain specificity. One relevant example of a domain

specific sub-category of TE that has emerged related to this study is Culturally Responsive Teaching (CRT). Authors such as Siwatu (2007), Oyerinde (2008), Cruz (2020) and others began to measure teachers' efficacy beliefs based upon their ability to be a culturally responsive teacher. Siwatu (2007) researched pre-service teachers and their TE. Siwatu found that the teachers in the study needed to be both efficacious and believe in the outcomes in order for them to implement CRT and be successful. Exposure to CRT resulted in the pre-service teachers increasing their efficacy in building relationships, but it did not extend to supporting English Language Learners. In the same paper, Siwatu promoted the Culturally Responsive Teaching Self Efficacy scale (CRTSE) which became the standard for studying this domain of TE. While this scale has proven its effectiveness in accurately measuring TE in the Culturally Responsive Teaching Competencies (Cruz, 2020; Siwatu, 2011), it only gives the researcher insight into the teachers efficacy beliefs about those specific teaching techniques. Therefore, while this scale has provided the field with important data on developing efficacy in CRT, that is not the purpose of this study. The aim of this study is to gain an understanding of how learning about CRT and the associated instructional strategies can affect novice teachers' overall sense of efficacy.

In studying the implementation of Culturally Responsive Teaching (CRT) techniques, Oyerinde (2008) found that Teacher Efficacy (TE) and CRT are positively correlated; the teachers who applied CRT techniques had increased TE. The conclusion was teachers will experience more success when they are meeting the needs of all of their students, which is accomplished by employing the CRT techniques. As the teacher experiences more success, their TE will increase. The findings were so significant that Oyerinde suggested that the three Teacher Efficacy dimensions should be expanded to include CRT techniques as the fourth dimension. Siwatu conducted another study in

teachers' experience with CRT was limited to class discussions. Though there is a scarcity of mentor teachers in the field who regularly implement CRT, Siwatu suggests that another efficacy building experience is to observe models of CRT. Siwatu's research confirmed that observing CRT increased the pre-service teachers' TE in CRT. Siwatu recommended that future research be a mixed-methods study. In 2017, Callaway published a paper on novice teachers and Culturally Relevant Pedagogy (CRP). Callaway found a positive correlation between CRP and personal teacher efficacy. She found that implementing CRP resulted in novice teachers experiencing increased levels of student engagement. Considering Meristo and Eisenschmidts' observation that novice teachers tended to have low levels of student engagement, it is promising that the implementation of CRP had a positive effect on that aspect of their teaching. Callaway recommended future research take a mixed-methods approach.

The literature on Teacher Efficacy and Culturally Responsive Teaching shows promising results that learning about and implementing CRT has a positive effect on TE. A significant portion of the literature reviewed was limited to quantitative analysis of the correlation between TE and CRT and called for more mixed-methods studies.

Additionally, the body of research on CRT's effect on TE is heavily focused on Siwatu's Culturally Responsive Teaching Self Efficacy. This implies that the majority of what has been studied is how efficacious teachers are in their ability to be culturally responsive. The aim of this research is to discover how learning about CRT and CRT techniques affect a teacher's general teacher efficacy. The purpose is to produce data that may influence the extent to which novice teachers are being exposed to CRT and CRT techniques in their pre-service teaching as well as their early years.

CHAPTER 3

METHODOLOGY

This research sought to answer the research question: how does awareness of Culturally Responsive Teaching affect novice teachers' self-efficacy? To answer this question, I used a phenomenological approach from an interpretivist philosophy. Data was collected using mixed methods. The mixed methods included a pre- and post-survey, written reflections, and semi-structured, follow-up interviews. The study took place over five months.

Phenomenology

This research study is underpinned by an interpretivist philosophy and utilizes the hermeneutic phenomenology research design as outlined by Max van Manen (1990). Interpretivism inquires into the lived experiences of both individuals and social groups to ascertain the meaning in these unique and shared experiences (Schwandt, 1998). In this philosophy, the researcher is not seeking out a single correct answer but seeking to understand how humans are affected by specific phenomena. This philosophy along with the research question led me to take a phenomenological approach. Phenomenology as a term had its beginnings in German philosophy though it became well-known by Edmund Husserl. His student, Martin Heidegger, introduced a new variation of the philosophy, hermeneutic (interpretative) phenomenology (Farrell, 2000). Phenomenology aims to understand people's conscious experiences of the outside world and, in the Heidegger hermeneutic vein, how they interpret and make meaning from that experience (Smith, 2018). Phenomenological research involves interviewing a small group of participants who share a common experience and reporting the findings through the participants' descriptions (Creswell & Creswell, 2018).

The interpretive philosophy and phenomenology were utilized in this study due to their alignment with Culturally Responsive Teaching. These commonalities include the importance of context (Ladson-Billings, 1995b; Smith, 2018), examining preconceptions (Allen et al., 2017; Farrell, 2000), and valuing people's lived experiences, as well as the meaning they make from said experiences (Ladson-Billings, 1995a; Farrell, 2000). In addition to phenomenology's alignment with CRT, it has been increasingly popular in education research, particularly in studying teachers' experiences (Hutton, 2022; Little, 2020; Meihami & Rashidi, 2022; Pramono & Amalia, 2020; Warren, 2014). Phenomenology is a useful tool for interviewing educators due to its focus on individual experiences. While the act of teaching is a shared experience among many, the experience of teaching is unique to each teacher since every teaching context is so nuanced. While phenomenology is not useful in studies with large sample sizes, it is well adept at capturing and explaining how different variables affect each teachers' individual experiences.

Setting and Participants

This study took place both virtually and in person in Tempe, Arizona. The professional developments took place on Zoom while the interview locations were decided by each participant. Participants were recruited from the areas surrounding Arizona State University. The specific setting was important to phenomenology to increase the similarity in the teachers' experiences such as student demographics at their schools and Arizona State Education policies and politics. The study received IRB approval before recruiting efforts began. Participants' emails were collected via an interest survey on Qualtrics that was distributed through Arizona State University's Herberger Institute for Design and the Arts, Tempe Elementary School District's Fine Arts Department, Fees College Preparatory Middle School's New Teacher Induction

Program, and shared through Instagram. Per the research question, novice, in-service teachers with three or less years of experience were recruited. Additionally, teachers employed at Title I schools were given priority due to the pressing educational disparities that would benefit from CRT. With small sample sizes, phenomenology relies on the participants having shared experiences so that the nuances of each experience can be captured with more clarity. This is the reason for limiting novice teachers to a three year span and prioritizing employees of Title I schools. Therefore, Teachers with 4+ years of experience, pre-service and retired teachers were excluded. Teachers from K-12 grade levels were eligible.

For this study, an optimal number of participants was between 2-8 participants. Recruitment for this study included a post on social media sites including Instagram and Facebook and a digital flier distributed by email. The email was sent through Arizona State University's Herberger Institute for Design and the Arts email list as well as Tempe Elementary School District's fine arts email list and their novice teacher induction program. As a result, five individuals responded to the outreach, and three committed to and completed the study. Each participant completed an interest survey, a consent form, and a demographics questionnaire before beginning the study in April. The participants included a female, a male, and a gender-fluid individual. Two of the participants identify as white and one participant identifies as Black. Their ages ranged from 23-26. All participants teach in the same school district and at Title I schools. All of the participants signed the consent form which guaranteed their confidentiality. One of the methods I used to ensure their confidentiality was using pseudonyms. Lee Jackson and Seymour Field opted to create their own pseudonym, while Riley Wood requested that I create a pseudonym for her. The participants' experience is shown below in table 2:

Table 2

Participant Information

Participants	Grades Taught	Subject Taught	Years of Experience
Lee Jackson	6-8th Grade	Dance	1 Year
Seymour Field	8th Grade	Social Studies	2 Years
Riley Wood	6-8th Grade	Orchestra	2 Years

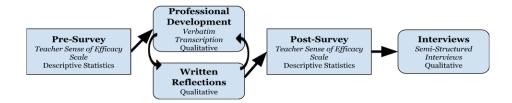
Data Collection

This study took a mixed methods approach to gathering data. While there have been a number of studies on teacher efficacy and CRT, primarily quantitative in nature (Siwatu, 2007; Oyerinde, 2008; Siwatu, 2011; Callaway; 2017), many of these authors called for more mixed-methods research to be conducted on the topic (Siwatu, 2007; Callaway, 2017). While the popular method for studying Teacher Efficacy is through administering surveys and utilizing quantitative data analysis to draw conclusions, numerical data would not have been sufficient in answering the research question. While numerical data can show trends, it falls short at accounting for the cause of the statistical changes as well as capturing the participants' experiences (Creamer, 2018). The questions in Teacher Efficacy scales are based on teachers' emotions, self-esteem, and reflections on their successes and failures. Therefore, it was necessary to take a mixed methods approach to achieve a thorough understanding of the phenomenon.

This study used a modified sequential mixed methods approach. Sequential mixed methods typically involves collecting quantitative data before collecting qualitative data so that the qualitative data collection can be informed by the quantitative (Almeida, 2018). This process allows the various types of data to interact with each throughout collection, analysis, and drawing conclusions. The data in this study was collected sequentially with one extra step of numerical data collection. Figure 1 illustrates the order of data collection:

Figure 1

Figure 1: Sequence of Data Collection



As shown in Figure 1, Descriptive statistics were gathered at the beginning and end of the professional development series as a pre- and post - survey. The field of self-efficacy and teacher efficacy has relied largely on scales developed to measure levels of self-efficacy. Using a reliable scale was a necessary component of the research in order to answer how the novice teachers' sense of efficacy was affected by the professional development sessions. Qualitative data was collected via transcriptions of professional developments, written reflections, and follow-up interviews. The mindset of CRT is based largely on individuals' life experiences and how they construct meaning from the world based on their world views. Qualitative data was collected to grasp the participants' understanding of their experience and how their perception impacted their efficacy beliefs. The pre- and post-survey scales provided a clear picture of the change in efficacy beliefs, while the qualitative thematic analysis of written reflections and interviews gave insight into how and why those beliefs changed.

Descriptive Statistics.

The descriptive statistics were collected through the short version of Tschannen-Moran & Woolfolk Hoys' Teacher Sense of Efficacy Scale (2001). This scale was developed following the discovery that the previously popular scales were not reliable (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998; Klassen, 2001). Tschannen-Moran and Woolfolk Hoy developed this scale to cover three categories of teacher efficacy: instructional strategies, classroom management, and student engagement (Tschannen-

Moran & Woolfolk Hoy, 2001). The scales' incorporation of three categories of teacher efficacy originated from Bandura's recommendation that self-efficacy scales must be specific to be accurate, but cannot be so specific that the data is not generalizable (Klassen, 2011). The short scale contains questions from each of the categories and has been proven to be as accurate in surveying teachers' sense of efficacy as their long scale (Tschannen-Moran & Woolfolk Hoy, 2001). It is 16 questions utilizing a likert scale ranging from "not at all" to "a great deal." The participants completed the pre-survey in April before the first professional development session, and completed the post-survey in May following the final professional development session.

Professional Development and Reflections.

The study consisted of three professional development (PD) sessions with Dr.

Tara Nkrumah of Arizona State University that were reflective and discussion heavy. The participants gave permission to be recorded and were encouraged by the facilitator to share personal experiences within their classrooms both as students and as teachers that related to the content being taught. Dr. Nkrumah was selected due to her mindset-approach to CRT as well as her use of culturally responsive teaching techniques in leading the PDs. Her mindset-approach to CRT means that she does not provide a set of teaching strategies or checklist for becoming a culturally responsive teacher. Instead, she models how to be a culturally responsive teacher in her delivery of the PD by building relationships with each participant and narrating her thought process in how she will use these relationships and her knowledge of them to inform her teaching practices. By modeling rather than lecturing, the participants would be provided with an experience. This mutual experience the participants lived through together is a significant element in the phenomenology of this study.

The PD was broken into three, 50 minute Zoom sessions spanning over six weeks. The first session was a demonstration and discussion of culturally responsive relationship-building and perceptions of students. Rather than lecture, Dr. Nkrumah created a culturally responsive experience with which the participants could identify with as they construct their understanding of CRT. The second session covered what is not and what is CRT, once again modeling how to build upon learners' prior knowledge and create accessible participation opportunities for all learners. The second session primarily focused on the responsiveness element of the pedagogy. The third session centered on teaching and pedagogy. Dr. Nkrumah modeled how to discover and apply learners' preferred delivery of instruction and communication styles.

During the PDs, I was an observer rather than a participant. I had previously taken a graduate course with Dr. Nkrumah, and therefore was familiar with the content and some of the activities she was leading. I felt that this would negatively impact their ability to have this shared, new experience with each other if I participated already having had this experience. When they shared the stories of their names in the first PD I shared as well to build rapport with the participants, but was strictly an observer after that activity. I had my camera on throughout all three sessions but remained muted and did not participate in the chat feature.

The PDs were transcribed verbatim and shared with the participants two months after the final session. Additional data was collected via written reflections following each session. Participants were given the last five minutes of each session to answer the following reflection questions:

- 12. Tell me about how you felt during this professional development.
- 13. Describe an experience you have had in the classroom that you might have handled differently given this new information.

- 14. Describe how you will integrate what you learned into your classroom/teaching.
- 15. How do you feel about implementing the Culturally Responsive ideas into your classroom?

These questions were piloted on four in-service, veteran teachers for clarity.

Individual Interviews.

Participants were offered a follow-up interview to express their experience and give their insights on the data from their perspective. Based on phenomenological interviewing practices, these interviews were semi-structured and utilized the thinkaloud interview technique (Lauterbach, 2018). The semi-structured interviews included two warm-up questions, three core questions, and two wrap-up questions listed in Appendix D. The think-aloud technique was used as a probing strategy to have a participant explain their thought process in how they responded to a situation they had been explaining. This technique provided insight into how the PD had impacted their mindsets. Each interview was a maximum of 60 minutes each. Participants were given access only to the data pertaining to them. The interview began with an introduction: In this interview I will be asking about your experience teaching since our professional development sessions. I want to hear stories about how you have been thinking through your classroom, teaching, and student interactions. Feel free to bring up anything that you think might be relevant to your experience. If at any point you want a break or do not want to answer a question, just let me know.

The interview questions were divided into three sections, warm-up questions, core questions, and a wrap-up question. The warm-up questions were unique to each participant based on their teaching experience. All of the questions were piloted on three in-service, veteran teachers for clarity. The interview questions can be found in the appendix.

The interviews were recorded transcribed using Otter AI along with manual editing. Two interviews were conducted in person, one was conducted by video call using Zoom. I interviewed three participants for a total of three hours that resulted in 70 pages of transcription, double spaced. The transcriptions were inductively coded using the coding software NVivo. The codes were analyzed on NVivo and arranged into themes by the researcher. The codes and themes were subsequently analyzed within the Teacher Efficacy framework using the three domains outlined by Tschannen-Moran and Woolfolk Hoy (2001) in their scale: student engagement, instructional strategies, and classroom management.

Data Analysis

This study resulted in a variety of data including both numerical data and qualitative data that was analyzed in tandem. The numerical data was analyzed using a mean average rather than a full quantitative data analysis. Due to the small sample size, the mean average was sufficient for describing the meaning and impact of the numerical data. As explained by Creamer (2018), mixed methods can not be simplified into the collection quantitative and qualitative in the same study, but rather the interaction of data collected through a variety of methods. The mean of each question was calculated followed by the mean of each category of Teacher Efficacy for both pre- and post-surveys. The difference between pre- and post-surveys' mean scores provided insight into which areas of Teacher Efficacy had been the most affected by the professional development. While the descriptive analysis did not speak directly to phenomenology in that it did not provide insight into their thoughts, feelings, and overall experience, it provided a lens through which the reflections and interviews could be contextualized. It also provided an additional element to the research question of how the participants' sense of efficacy had been affected.

Each set of qualitative data was uniquely incorporated into the data analysis process. The verbatim transcriptions of the professional developments (PD) and their written reflections were not subjected to the thematic analysis, but were shared with the participants for their interpretations. In my phenomenological interviews, both semistructured and think-aloud strategies were used (Lauterbach, 2018). In order for the participants to feel confident in recalling their thought processes as well as their emotional responses in the PD, it was important for them to read in their own words how they participated in the PD and how they felt after each session. The transcript were sent to the participants two months after the final PD, and one month before their interviews. They were given the ability to comment on the documents and encouraged to expand upon their thoughts they had shared in the PD or to comment on other participants' quotes with new thoughts. While these data sets were not analyzed for themes, they were also valuable for evaluating their growth throughout the process, and comparing their attitudes from the beginning of the process to their interviews five months later. This comparison provided me insight into not only how they described their experience of the phenomenon, but verbal evidence of their described experiences.

In analyzing the individual interview data, a hybrid approach of both deductive reasoning and inductive thematic analysis was used. Utilizing both inductive and deductive analysis allowed me to understand the phenomena by discovering themes that emerged from the data and apply the two existing themes from the research question: Teacher Efficacy and Culturally Responsive Teaching practices. In analyzing the data, I began with a thematic analysis and finished with the application of the preconceived themes derived from the framework. While interpretivism and phenomenology are often used in tandem through Interpretive Phenomenological Analysis (IPA), it was not appropriate given the research question. The purpose of IPA is to discern meaning free

from researcher objectives (Charlick et al., 2016). Given that the theoretical framework lends itself towards an inductive and deductive hybrid approach, IPA was not ideal in analyzing the data for this study.

While IPA was not utilized, phenomenology was essential to the analysis process. The semi-structured interviews were the most obviously aligned data set with traditional approaches to phenomenology. However, each data collection method provided valuable insights into the participants' lived experiences. The descriptive statistics supported the participants' reflections of their growth. Also, sharing the statistics with the participants proved to be a productive tool. Each participant responded to the statistics with new emotional descriptions and think-aloud reflections that had not been mentioned yet in the interviews. The written reflections and transcriptions of the PD provided context and evidence for the participants' stories of their experiences learning about CRT. Each method was essential in comprehending the full picture of each participants' experience which is the goal of phenomenology.

CHAPTER 4

RESULTS

The results of this study showed that participating in professional development on CRT had a positive impact on novice teachers' self efficacy. The change from the preto post- survey showed an increase in every area and in every question. The qualitative data showed an evolving mindset, especially towards students, classroom management, and classroom culture. This section will first provide an overview of the descriptive statistics followed by a phenomenological description of the effect of the PD on the participants. The description is organized by emerging themes nested within the larger themes derived from the Teacher Efficacy Framework, followed by unexpected results.

Descriptive Statistics

As a mixed-methods study, the results include the mean scores from the pre- and post- surveys as well as themes from the written reflections and follow-up interviews. The descriptive statistics from the Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001) were analyzed using the mean score of the three participants for each question. The difference between the mean pre-survey score and the mean post-survey score was calculated for each question, as well as for each domain of teacher efficacy. The three domains included student engagement, instructional strategies, and classroom management. For each question, the lowest possible response was 1 ("nothing") and the highest possible response was 9 ("a great deal"). The reflections and interviews were inductively coded revealing two emergent themes within student engagement, one emergent theme within instructional strategies and one emergent theme within classroom management. There were three unexpected themes related to Culturally Responsive Teaching and Teacher Efficacy that were categorized under "Teaching Persona."

The descriptive statistics from the surveys were analyzed using the mean average and showed an overall increase in every domain. Student Engagement had a mean pre- score of 6.33 and a mean post- score of 7.55, giving it a 1.22 increase on average. The question with the highest post-score of 9 points "How much can you do to get through to the most difficult students?" This question also resulted in the greatest increase from pre- to post-with an increase of 2 points. The second highest increase from pre- to post-was "How much can you do to motivate students who show low interest in school work?" with a difference of +1.67 points. The lowest scoring question with a post-average of 6.33 was "How much can you assist families in helping their children do well in school?" This question showed a .83 increase from pre- to post-. Another question with an identical increase of .83 was "How much can you get students to believe they can do well in school?" The Student Engagement domain saw a total increase of 7.33 points across all questions.

The difference in average between the pre- and post- scores in the Instructional Strategies domain showed an overall increase, as well. The average pre-score across questions was 6.15 with an average post-score of 7.868. This results in a +1.718 change on average from pre- to post-. The question with the highest post-average score was "How well can you respond to difficult questions from your students?" This question had the second highest increase from pre- to post- with a difference of +1.92. The question with the most significant increase was "To what extent can you provide an alternate explanation or example when students are confused?" The question with the lowest post-score also had the least significant increase from pre- to post-. This question was "To what extent can you craft good questions for your students?" The total increase for Instructional Strategies was the highest among the three domains at 8.59 points.

As in the previous two domains, the third domain, Classroom Management, achieved an overall increase for all questions. The average pre-survey score was 6 points and the average post-survey score was 7.66 points, representing an increase of 1.66 points on average. The question that had both the highest post-score of 8.33 and the greatest increase, +2.58, was "How much can you do to calm a student who is disruptive or noisy?" This question was also among the lowest pre-survey scores. The question that had the lowest pre-survey score of 5.25 and the lowest post-survey score of 7 was "How much can you do to control disruptive behavior in the classroom?" However, this question received the second greatest increase from pre- to post- with a difference of +1.75. The question with the least significant increase from pre- to post- was "How well can you establish a classroom management system with each group of students?" This question only increased by 1.25, however it also had the second highest post-survey score. The total increase for this domain was 8.33 points, the second highest across the domains. See Table 3 for questions and averages.

Table 3

Pre- and Post- Survey Questions with Mean Scores

		Pre Survey	Post Survey	Ì
Q#	Question	(Mean)	(Mean)	Difference
Student Engagement				
	How much can you do to get through to the most			
1	difficult students?	7	9	2
	How much can you help your students think	,		
2	critically?	7	8	1
	How much can you do to motivate students who			
4	show low interest in school work?	6	7.67	1.67
	How much can you get students to believe they can			
6	do well in school work?	6.5	7.33	0.83
	How much can you do to help your students value			
9	learning?	6	7	1
	How much can you assist families in helping their			
22	children do well in school?	5.5	6.33	0.83
	Mean Score	6.333333333	7.555	
Difference for Student Engagement:				7.33
	Instructional Strateg	ies		
	How well can you respond to difficult questions from			
7	your students?	6.75	8.67	1.92
	To what extent can you craft good questions for your			
11	students?	5.5	6.67	1.17
	How much can you use a variety of assessment			
18	strategies?	6	7.67	1.67
	To what extent can you provide an alternate			
20	explanation or example when students are confused?	6.25	8.33	2.08
	How well can you implement alternative strategies in			
23	your classroom?	6.25	8	1.75
	Mean Score	6.15	7.868	
Difference for Instructional Strategies:				8.59
	Classroom Manageme	ent		
	How much can you do to control disruptive behavior			
3	in the classroom?	5.25	7	1.75
	How much can you do to get students to follow the			
13	classroom rules?	6.25	7.67	1.42
	How much can you do to calm a student who is			
15	disruptive or noisy?	5.75	8.33	2.58
	How well can you establish a classroom management			
16	system with each group of students?	6.75	8	1.25
21	How well can you respond to a defiant student?	6	7.33	1.33
Mean Score 6 7.666				
Difference for Classroom Management:				8.33

The interviews and reflections were coded inductively using the NVivo coding software. The results were 105 codes and 785 references to codes. Student Engagement and the related emergent themes had a total of 257 references. The emergent themes under this domain included *classroom community* and *off-topic conversations*. The prominent codes within this domain included "community" with 178 references,

"engagement" with 28 references, "student interests" with 24 references, "relationships" with 23 references, and "trust" with 13 references. Instructional Strategies had a total of 134 references. The emergent theme within this domain was understanding of culture and connecting with students. The significant codes that constituted this domain were "connections" with 41 references, "student abilities" with 23 references, "independence" with 17 references, and "experiment" with 14 references. Classroom Management received 123 references. The emergent themes for this domain were responding to student behaviors and open communication with students. The noteworthy codes that comprise this domain and theme were "structure" with 18 references, "behavior" with 18 references, and "putting out fires" with 14 references. There was an unexpected theme from the interviews concerning the participants' teaching personas.

Phenomenological Description of Results

The teachers interviewed in this study all demonstrated increased efficacy beliefs in their survey results as well as in their interviews and reflections. The research question, "How does awareness of Culturally Responsive Teaching affect novice teachers' self-efficacy," looks at how the participants' general teacher efficacy changes after exposure to Culturally Responsive Teaching professional developments (PD). The results show that attending the professional developments had a positive impact on the teachers' self-efficacy beliefs. The surveys revealed an increase in efficacy beliefs in all domains. During the interviews, participants described increased confidence in making connections with and between students, utilizing those connections to improve students' academic performance and behavior, and improved confidence in creating a classroom environment that aligns with their educational beliefs.

Dr. Nkrumah, the facilitator of the three professional development sessions, focused her instruction on modeling, application through discussion, and reflection. She structured

the professional development to develop a mindset that breaks away from authoritarian and Euro-centric teaching towards one that allows for Culturally Responsive Teaching practices. In order to accomplish this in just three sessions, she opened each session with a Culturally Responsive question that required the participants to share their lived experiences and how they relate to the world. She would then model how to connect each person's story with the content learning of the day. She would follow this with activities that are Culturally Responsive in nature, inviting the participants to develop critical consciousness, and again model how to connect the activity to the content. Finally, she would dedicate the remainder of the session to reflecting on both the opening question and the activity, allowing the participants to process how they felt as the learner and how they could apply this in their own teaching. In doing so, she illustrated the necessity of approaching instruction from a Culturally Responsive mindset. Due to the time limitations, the professional developments did not directly address issues of race or privilege, though those topics were often discussed organically. They could not think critically about the role their race plays in their teaching, if they did not first recognize the authoritarian and Euro-centric tendencies of schools and classrooms. Therefore, Dr. Nkrumah prioritized their CRT mindset as a precursor, knowing that developing their cultural competency and critical consciousness lays the foundation to eventually explore the effect of their positionality in their classrooms.

Student Engagement

At the start of the first PD, the participants were listening patiently with their mics muted and their cameras to Dr. Nkrumah's introduction. Each participant seemed comfortable with remaining in this arrangement: Dr. Nkrumah talking while they sat and listened. Her introduction, however, was relatively short and she quickly moved into

an introductory activity. She explained the parameters, what each participant would share, and then she modeled it herself. She shared about her last name from her husband and its significance in Ghana, she shared her childhood nickname and what it says about her personality, she shared some cherished memories of that nickname, and finished with the meaning of her first name. She instructed the participants to popcorn, or call on the next person rather than wait for volunteers. Lee Jackson was the second to share and appeared excited to be able to share. The participants enthusiastically explained their own nickname and how its meaning is often misconstrued, as well as the actual intent of the nickname. Seymour Field shared next and kept his statement brief. He skipped through the first few prompts, but then took time to tell a story about a project he did in elementary school about his name and how that experience helped shape who he is today. In his conclusion, he shared more about his personality by reflecting that he is a succinct person and that's all he felt he needed to share. Riley Wood was the last participant to share. She started off by expressing her excitement for the PD and then went into the prompts. While sharing about her name, she would pause after finishing a thought, seeming to debate whether she should continue or stop there. Each time she continued on until she reached her concluding thoughts and looked satisfied with what she had shared.

This activity was an opportunity for Dr. Nkrumah to model building relationships with students, creating classroom community, and after she narrated how she used this as an opportunity to determine the optimal way to engage each of them as students. The participants' reflections following this PD described how they felt nervous at first about participating in the PD as well as implementing CRT in their classrooms. However, after just that first PD they already felt more confident in how to engage their students in a

safe learning environment. This feeling of increased confidence was mirrored in their survey data.

The survey data on student engagement showed an increase from 6.33 average in the pre-survey to 7.55 average in the post survey. The participants made frequent references to their improved experiences with their students since learning about a more expansive definition of culture and examples of how students' cultures can be used as a tool for engagement. The two themes that emerged from this domain, off-topic conversations and classroom community illustrate how investing class time in learning about each other's cultures resulted in increased student engagement. The two themes are heavily interconnected. They are being explained as different themes to distinguish the new actions being taken by the participants (allowing time for off-topic conversations) and the result of this change (a cohesive classroom community). Meanwhile, the question with the least movement was "How much can you assist families in helping their children do well in school?" as well as "How much can you get students to believe they can do well in school?" The participants did not make any mention of family involvement in their interviews or their reflections. This reflects the same findings as Siwatu (2007), that novice teachers practicing CRT show increased TE for student engagement but not for supporting students beyond engagement.

"Off-Topic" Conversations. Dr. Nkrumah took time in each PD to model how to engage students by first building relationships with them and learning about who they are as individuals and as learners. She modeled this by having what appeared to be "off-topic" conversations such as the origin of their names or who taught them how to drive. Each participant reported that this had an impactful shift in their thinking about having a productive classroom. Riley Wood's reflections from the early PDs to her interview five months later show a significant change in her mindset on this aspect of CRT. In the

beginning, she was very concerned about the time commitment of getting to know each of her students:

I appreciated the importance of the check in question. I know that if I see a student who is acting differently compared to normal, I will ask them how they are doing and go from there, but it absolutely would be beneficial to do this in class with all students in case some are really good at hiding it. However, my largest class right now is 49 students and I'm still struggling understanding how to best incorporate this without losing valuable learning time. Checking in with students is obviously really important, but it is easy to lose middle schoolers' attention if we don't do something engaging. (Riley Wood, personal communication, 2022)

And to another question responded:

I think keeping the door open to allowing more time for us to discuss things going on in our lives could be helpful to maintain a positive classroom culture and community. But, similarly to what I said before, it is hard to find the time to do EVERYTHING. :((Riley Wood, personal communication, 2022)

The lack of time was a frequent concern in her written reflections from April and May. However, in her interview in September she noted that had seen an improvement in her students' engagement since more class time had been dedicated to these off-topic conversations. In the following quotes, she describes how she is providing opportunities for her students to create traditions outside of their content area and allowing herself time to let her students get to know her outside of being their teacher.

... those sixth graders in my seventh hour were like this, "we got to do a fit check!" And so then they made me, like, do a fit check where all my stuff was from. And then they were like, "wait. . . I want to do it!" So now every single day I

have three of them do a fit check and they just like, share what they're wearing. And it's so silly and they're like, all so weird about it. And they're like, "Oh, I got the hair from my mama and I got the shoes from Goodwill because I'm broke, and I got the pants from Walmart and the shirt from Walmart because I'm broke." and like everyone's laughing about it. And like it's definitely building good community. But it's so interesting because that's like their culture, but it's not like culture in the way that I grew up knowing what the word culture was. So it's like just really fun to see them engage and like let them engage in the way that they want to. So I think out of the PD, that's probably the one of the biggest things I got. (Riley Wood, personal communication, 2022)

In this story, it is evident that she has made a caring learning community for her students (Gay, 2002) and has applied her new understanding of culture (Paris & Alim, 2014). Her description of the moment was positive both about the students' reactions and the tradition that she created with her students. She explained how she addressed her time concern by recognizing her responsibility to teach students how to redirect themselves when it is time to work again.

I'll be like, Okay, let's refocus now because I think especially the sixth graders can't necessarily handle it yet, but I don't think they'll be able to handle it unless we do it more. So I'm like, I'm willing to sacrifice learning a couple songs, if it means that they get to, like, have conversations and learn about each other and learn about their own experiences and talk about and process. (Riley Wood, personal communication, 2022)

This quote displays a significant perspective change for Seymour Field. Not only had she begun to prioritize opportunities for students to build community through off-topic conversations, she expressed confidence in her ability to teach the students how to flow

between community building and content learning within the available class time. This change in efficacy was evident in the statistics, too. While these conversations were not strictly content related, it showed increased motivation to participate that students were actively engaged in the classroom culture. The survey question focused on student motivation showed a significant increase of 1.67 points.

During the interview Wood reflected on these moments in which the students felt comfortable sharing as an indicator of her success as a teacher. One story in particular confirmed her belief in her new-found ability to create a caring learning community in which students feel safe to be vulnerable:

... they were learning about slavery in one of their other classes. And the students telling me this are Black, and they're telling me that when they were talking about slavery in that class, all the other kids in the room stared at them, and it made them like really uncomfortable, but like the some of the other black kids are laughing because they were like, "Yep, been there, like, same for me, like, know how it goes"... obviously, I'm not going to shut that kind of conversation down... then they just started to get on this whole conversation about how they've had, like, racist interactions with teachers and stuff... And like, you know, they felt safe enough to have that conversation while they were supposed to be working silently in the classroom. And I am not going to sit there and try to silence them (Riley Wood, personal communication, 2022).

This story illustrated both her success in creating a safe environment and her improved confidence as an educator. In response to the off-topic conversation, she distinguished this from a distraction and recognized her role in creating the environment where students could be supported in saying "they felt safe" and "I'm not going to . . . silence them." While this conversation was not a planned conversation, Riley was successful in

creating a community in which students can think critically about their lived experiences. The statistics show that helping students think critically had an increase of 1 point, with a resulting post-survey average of 8 points out of 9 points. Since the PD, she has begun prioritizing opportunities for students to engage in their learning as their authentic, whole selves, as opposed to their student-selves.

Jackson expressed that they had wanted to be culturally responsive in their first year, but did not understand what it was or how it could be implemented. After being exposed to CRT through the first PD, they gained confidence realizing they had already implemented some components of CRT and they now felt competent in doing it intentionally.

I always have wanted to do this but haven't understood the best way or what it really means. I feel better that even just after our first meeting I'm doing some of these things already and also have a better idea of how to continue growing this process in my classroom. (Lee Jackson, personal communication, 2022)

Jackson's interview in September provided insight into how their newfound knowledge of CRT impacted the beginning of this school year. The interview illustrated Jackson's improved sense of confidence in their teaching since they began allowing time for students to express their individuality and culture. They reflected on the necessity for students to feel comfortable with their classmates as they needed to dance together:

Maybe we're talking about, maybe we're talking about Bakugon, even though Bakugon is not really talked about nowadays, but maybe we were talking about Bakugon right now. And we talked about that for five minutes in class. That five minutes of just talking about that, gives kids much more of a release than just saying, Okay, talk with your friends. Kind of thing, because they're realizing "oh, I'm not the only one who likes Bakugon in this class. Billy and Bob like Bakugon

in this class as well. I just got Paul, like, kind of interested. And so we want to talk to him" and it's creating that culture group and it's growing that culture group as well as growing those friendships within the class (Lee Jackson, personal communication, 2022)

They continued on to describe how allowing these conversations during class time positively impacted their motivation to teach and improved their students' engagement in the dance program:

It's like all these different connecting points that I never saw within my first year. [I] thought [our class discussions] must just pertain to dance, when it doesn't [have to] pertain to dance. Some students come and tell me about cultural things, some people just want to talk to me about gaming, some people literally talk to me about shows. And there's still that connection that really causes the students to like, "I want to come back cause this is a connection that I see that is actually genuine and I want to talk with them more about." And that really made my second year seem like a flame in my heart to want to come back and I'm like, I'm getting it strong. We're 'bout to do all these amazing things and get things done. (Lee Jackson, personal communication, 2022)

In these quotes, Jackson demonstrated an understanding of culture as described by Paris & Alim (2014) in Culturally Sustaining Pedagogy. Rather than exclusively defining culture in terms of ethnicity, Jackson recognized the students' ever-evolving cultures. In doing so, they were able to build a knowledge of cultural diversity and create a caring learning community (Gay, 2002). Jackson described how making connections amongst students had decreased the possibility of isolating any student from the learning community. Their increased confidence in reaching every student is evident in the statistics. The question regarding reaching the most difficult students showed the

greatest change in the student engagement category with an increase of 2 points. This in turn led to Jackson's statement of wanting to return to teaching, feeling stronger as a teacher, and having increased confidence in his ability to "do . . . amazing things." Seymour Field, an eighth grade social studies teacher, described the rabbit-hole discussions which often engages his students:

So, specifically, we were talking about well, actually, I don't remember what we were talking about, or how it came up. We're talking about George Washington's teeth. Yeah, and someone made the comment, "weren't they made out of wood?" And I made the comment that they were actually slave teeth. And then that led into something of, like, the kids be like, "Hmm, but mister who else? Like, did anyone else do that? Or was it just him?" And it's like, well, where do you think he got the idea? And so it just, it became a rabbit hole discussion. And we've had a bunch of those this year related to other things (Seymour Field, personal communication, 2022).

While Jackson and Wood's off-topic conversations were centered around building community, Field utilized these discussions as an opportunity to immerse students in the content learning. This anecdote provides context for how CRT helped students think critically, encouraged students value learning, and motivated students to be interested in the content. Each of these topics increased from the pre- to post-survey with a 1 point increase for the first two topics and a 1.67 increase for the second topic. The expression that it became a rabbit hole discussion implies that the conversation continued via student inquiry which seemed to demonstrate a significant level of student engagement.

Classroom Community. Classroom community was a highly discussed topic following the professional developments. Jackson and Wood are both fine arts teachers who valued classroom community since their classes perform together as a team or

ensemble. Field placed less value on his students' bonding with each other as a community, and more importance on his relationship with students as a means to educate them more effectively. All of the participants communicated increased confidence in their ability to form relationships with students and build trust among classmates. They also noted their increased ability to mediate conflict whether with one student or between students. This correlates with the finding from the pre- and post-survey that a highly rated competency was the ability to get through to difficult students. Jackson described their struggle to connect with their class community last year and how it negatively impacted their sense of belonging in the teaching profession:

Because I felt like in complete honesty I wasn't making that connection with all my classes like I wanted to, as well as I felt like a lot of things were, [it was] very hard for me to actually get to know the kids and the kids to actually get to know me. So I really felt like that disconnect with teaching. (Lee Jackson, personal communication, 2022).

They described how their feeling of being lost and disconnected from teaching last year had evolved into feeling at ease and passionate for teaching this year since the PD.

I feel like I was very well prepared for the school year. I would say that in, like, the biggest sense last year . . . I felt so lost in my teaching. I didn't know I guess the best way to approach your students, how to make [it so] we're comfortable in my class, [and how to build] a team . . . if there's no team within dance, it kind of makes it much . . . harder to really reach everybody at the same level. So this year, I felt like it was so easy to bring everyone in. . . . coming into, to this year I felt such a big passion for teaching. I felt like I was getting to have connect[ions] with the students. (Lee Jackson, personal communication, 2022).

A major concern for Jackson from the previous year was conflicts between students and not being able to handle them. Since the PD, they described the increased capability they feel in being able to mediate conflict between students. They described an instance where they were able to be proactive in preventing a conflict by utilizing the skills they learned at the PD.

... I had one student, she was very, I guess the best word is 'blunt' with her words when it came in the classroom. . . it was causing a lot of friction within my class the first few weeks because some people were like, "Woah you're saying that in a rude way" and I had to have that conversation with everyone and I was like, "let me be real with you guys, some people approach things in different ways and say things in different ways. It doesn't mean that they're mad at you. . . we all have different ways of saying things . . . And it doesn't mean that our, either meanings are wrong. It means that they just express it in a different way and we have to accept that and understand that. Now if we feel like it is coming as an aggressive tone or something, talk with them. Let's have a conversation and be able to discuss it and why you feel that way as well as why they felt that way. And let's see we could come to like a. . . A middle ground on it. And a lot of my students then started discussing with each other about, "oh this is how I want to be talked to, this is where I kind of find, really kind of disrespectful" and it really made us more closer to each other than allow that one thing to be very a crack in the foundation in that type of way, which was very beautiful to see when last year, I don't think I had that knowledge to be able to fill in that crack or to bring that together in the best way of how I did it then (Lee Jackson, personal communication, 2022)

In this story, Jackson used his knowledge of his student's speech patterns as well as their other students' code of respect to anticipate the conflict. They reflected that in taking a culturally responsive approach, they not only avoided conflict but brought the students closer together through a discussion about their differences. This anecdote exemplifies the increase in efficacy for reaching the most difficult students, which had a 2 point increase. Jackson expressed in his interview that before the PD this situation would have been stressful, and they would not have known how to assist both sides of the conflict effectively.

Wood offered a similar sentiment to Jackson of feeling negatively about her teaching last year due to the lack of student engagement and classroom community.

Last year, they just didn't really do, like anything I kind of felt like, especially in orchestra there were a lot of students who were like this is not my jam. This is not [the] elective I want to be in, this is not the space I want to be doing any of this. . . They didn't want to be doing anything and it was hard to watch and then that made me feel like a failure as a teacher because I'm like, I can't make this a good environment for you to even want to try something even if it wasn't my fault. (Riley Wood, personal communication, 2022)

This year, however, she spoke positively about the classroom environment she has created. She referenced students having the opportunity and feeling safe to share, which increased her confidence in her teaching abilities.

... there's a lot more participation in general and there's a lot more buy in and it feels like there's a lot more general just willingness to, to be in the space together. . . I'm also having this, like, really good moment where I'm like, I love that they're willing to share these things and I love that they feel that they can be

themselves in this space and they don't feel like they have to, like, hide themselves. (Riley Wood, personal communication, 2022)

She also referenced a call-back that uses a student's instrument playing ability that she made with her students that has become a class favorite: "it's like a fun, like, kind of, like, inside joke almost kind of thing that only our class knows. So it's cool" (Riley Wood, personal communication, 2022). She described how not every student was initially able to play the short call-back melody she had made, but because of their enthusiasm to do it the students who were struggling asked their peers for help. She said that within a few days everyone was able to play the melody and the class had a sense of pride in their achievement. This innovation is evidence of her improved ability to get students to believe they are capable of performing at the expected level. This topic in this survey showed a .83 point increase. In these quotes, Wood demonstrated growth from feeling like a failure to recognizing her role in creating a space where students feel safe and invested in their classroom community.

Seymour Field was not as concerned with building a classroom community amongst the students as he was with deepening his relationships with the students. From the professional development, he found skills related to CRT that could improve the relationship skills he already had. The first skill was related to developing a more well-rounded understanding of the students. He said that "Often when asking what kids are doing, I forgot to lead with 'how are you' which is important" (Seymour Field, personal communication, 2022). The second was modeling for students that he, as a teacher, is also learning:

There have been several [situations I would have handled differently], it's part of growing. And, becoming a better teacher is recognizing that you won't make one

mistake but several [and] that you have to show students [it is] possible to fix (Seymour Field, personal communication, 2022)

This provides a classroom community where students can feel safe to make mistakes. It also shows an intuitive method for creating a classroom environment in which every student feels they can succeed even if they make mistakes. The survey topic closely related to this mentality of helping students believe they can do well showed a .83 increase on average.

The next domain, Instructional Strategies, builds upon the data from the Student Engagement domain. In their interviews, the teachers spoke about student engagement and instructional strategies fluidly. The teachers made many connections between instructional strategies and student engagement as they discovered that engaging students whole selves in the learning process often resulted in the best outcomes. The off-topic discussions provided the teachers with background information on the students that could be used as a basis for understanding new content.

Instructional Strategies

In the second professional development, Dr. Nkrumah focused on defining culture and how to make teaching relevant and responsive to students' cultures. As this PD started, the participants looked alert and excited. While they were slow to unmute in the first PD, in this PD the participants unmuted frequently to add on to each others' thoughts, to amend a previous comment, or to invite each other to consider a new idea that had just come to mind but was not yet fully formed. This PD started with a check-in of how each participant was feeling, followed by a slideshow of pictures. Each slide had a person on the left and a person on the right. One of the pictures was of a famous white person, and the other a famous Black person. She had the participants share if they knew either

person. For both slides, the participants only knew the white person. The conversation, led by Field, quickly erupted into the Euro-centrism of the education system in the United States.

Later in the PD, the participants were given a task. They had to share an image that was relevant to their culture and explain why. The participants struggled with this task at first. They described that while brainstorming what to share, they ran into the thought that they don't have a culture. They described how they understood having culture as being different from what is considered "normal" in the United States. They alluded to thinking of culture as eating foods from different countries, having traditions that are not Euro-centric, or speaking a language other than traditional English. The remainder of the PD was dedicated to discussing the understanding of culture as expansive and ever-evolving rather than a static view of culture that is based on ethnicity or language. The conversation was lively with each participant sharing repeatedly and frequently jumping in to add on to or compliment another participant's thoughts. These two activities, identifying which famous individual they knew and reframing their definitions of culture allowed Dr. Nkrumah to model CRT. The first activity exemplified the importance of diversifying the curricula in every content area (the two individuals from the slides were all scientists) so that all students can see themselves being successful in that class. The second activity was an opportunity to illustrate how knowing students' many cultures and subcultures allows the teacher to use those frames of reference and build on students' prior knowledge. These activities, particularly the conversation of culture, proved to be one of the most impactful moments of the PD for affecting their efficacy beliefs.

Instructional Strategies is the domain that showed the most overall growth from pre-survey to post-survey. The question with the most significant increase was "To what

extent can you provide an alternate explanation or example when students are confused?" Within this domain, the emergent theme was *understanding of culture and connecting with students*. The professional development on CRT was an introduction that helped reframe teachers' mindsets to approach teaching from a culturally responsive perspective. It did not provide a curriculum or a set of activities like some PDs do since CRT will look different in every classroom, as it is responsive to the students in that room. Due to this, the participants' learning in this area is strongly connected to their new understanding of culture and how learning about students' culture and background and applying it to instructional methods produces better results.

Jackson described the effect their new understanding of culture had on their and their confidence in their teaching:

I think what stuck with me the most with the professional development was the definition of culture. All my life, I have thought culture only being considered your ethnicity, that is culture. If it doesn't, if anything, ethnicity is your culture . . . When it's defined that there's so many different things as culture, there's technology, there's toys, there's games, there's systems, anything could be culture, even hair could be a different culture. There's so many different things that can define as culture and that made my understanding into going into teaching way more, I guess expansive. More big than what I originally thought that it was gonna do. So, it truly, it boosted my confidence to a whole 'nother realm. I can't even define how much it has boosted me and made me feel, one, more comfortable in teaching, two, more secure and sure of myself in my teaching, three, to know that I have these students' backs as much as possible (Lee Jackson, personal communication, 2022).

In the next quote, they went on to describe how they have approached teaching since the PD. They expressed a new willingness to experiment with different ways of explaining a concept, rather than blaming the students when the first explanation did not work.

So let me try to see what things I could throw at them for them to actually be able to connect or what things could I use in class to see if they connect with that kind of thing. I would have been able to more, experiment more with things that I know that [are] within this student's culture. . . than trying to go throughout the year and be like "you guys. I don't get why you guys don't get this. I'm putting this in a more simplest of terms." kind of thing, because obviously that wasn't working (Lee Jackson, personal communication, 2022).

Jackson continued to describe this new strategy of relating the content back to students' interests:

now we're able to connect with them and be able to reference things that they actually know and be able to break things down to things that they actually know. Like, for example, I went referencing makeup . . . we all know we have to first put on our concealer, we need to put on our eyelashes, all that little good stuff. But before we can do that we need to wash our face, right? It's like well, that's the same thing with dance. (Lee Jackson, personal communication, 2022).

Since applying this teaching technique, they have seen the resulting successes: "it's makes [more of] my favorite moment: Aha moment with the kids! And it's very beautiful because you can have multiple ways of connecting." In this description of his new practices, Jackson describes their willingness to try new modes of explaining and successful teaching moments. These anecdotes speak to the statistics related to the Teacher Efficacy topic "To what extent can you provide an alternate explanation or

example when students are confused?" This topic had the highest increase in the Instructional Strategies category with an average increase of 2.08 points.

Wood found that maintaining the perspective of each student as an individual has helped her feel secure in her teaching this year. She repeatedly referenced the importance of remembering that the students are individuals with personal lives outside of the classroom: "So I think something [helpful] from our PD was that, like, they all have these individual experiences that they're bringing to class every day" (Riley Wood, personal communication, 2022). She continued on to describe how her new understanding of culture has helped her understand what students are experiencing as they are trying to learn in the classroom:

... they have different things going on with the ways that they experienced life at home... like the different ways they like, not just like the, eating the food, practicing religion ... but the way that they, like, participate with their families and the way that they like engage with family. The ways that we all engage with our family members is so different than the ways like from, from each other... they're having to code switch when they come into the room (Riley Wood, personal communication, 2022).

Recognizing that her students are constantly code switching allowed Wood to identify the root issue and help her students in their learning process. In recognizing students' diverse communication styles as well as acknowledging the effort they put forth when they come into the classroom, she has taken ownership as the teacher of her responsibility to respond to these learning differences. This awareness plays into the topic of implementing alternative strategies to meet students' needs. Wood's testimony demonstrated her increased efficacy in this area, and the statistics mirror this increase. The pre-score for this topic was 6.25 points while the post-score was 8 points.

Following the professional developments, Seymour Field wrote in his reflections two goals for the following year based on his learning on CRT. The goals were as follows: (1) "It's important to seek understanding prior to instruction. I will work to reach my students on personal levels prior to content," and (2) "I will work to get to know my students better on a more 'over-time' level, meaning that I will try and learn how they perceive themselves over time and at home." (Seymour Field, personal communication, 2022). In his interview, Field explained that the professional development did not present him with any new information. He explained that it did not change his teaching methods, but rather his mindset around his instruction.

... not because it wasn't important or ineffective, but more just because, with all due respect, a lot of it was things I've merely agreed with, as I was already incorporating most of them. I will say though, since the professional development my thought process is a lot more conscious. I'm more cognizant of my cultural relevancy, so to speak (Seymour Field, personal communication, 2022).

In his interview, he explained a situation in which he applied his culturally relevant mindset as well as the goals he had set within his reflections:

... we have this one kid who is really good at math. And he's really smart in other classes, but he doesn't care as much as he cares for Math, because he's just, he's really good at math. And so he likes to kind of show off and, you know, strut his stuff in math class, whereas the other ones he doesn't have as many opportunities. . . And so, knowing this, when discussing, discussing with his math teacher, like oh, this is how he is in your math class. But then knowing his background . . . We can start to understand how his background influences those characteristics. He did actually comes from a family that . . . is math oriented, you know, and so that's where a lot of the feedback comes from in his house is

from like, you know, production of numbers or evaluation of numbers, because, because that's what his father does type thing. You know, so . . . he wants that approval in that context, because that's what he knows, versus the other ones . . . And so I have to do a lot more work to keep him actively engaged, kind of keep him on our side of the learning, so that I don't lose him and so I can show him there's opportunities to, you know, excel like he does in his math class. (Seymour Field, personal communication, 2022).

This story exemplified the mindset of CRT. Field had an understanding of the student beyond the classroom as evidenced in his knowledge of student's father's career and how the student receives praise at home. While this passage does not make explicit mention of culture, Field recognized the communication style of the student based on his home life. He also referenced his intentions to create opportunities for the student to engage in social studies using the communication pattern that is comfortable and familiar. Similarly to Wood, this story demonstrated his responsiveness to individual students and their need for alternate strategies. Due to his newfound "consciousness" in his instruction, his efficacy beliefs increased which is shown in the statistics of the alternate strategies topic as explained previously in Wood's story. Field's efficacy beliefs were high here based on his willingness to try new things and to put the locus of control within his role as the teacher rather than placing blame on the student.

Finally, the understanding of culture and connecting to the students was also seen in how they valued the importance of representing students in the curriculum. Wood talked about her how her understanding of representation has evolved:

[I want to] make sure minorities are not considered like [a] minority in, in the sense like in our classrooms and what's represented, what we're doing and. . . how we approach everything. But it's also more than just like the countries they

come from [and] the languages they speak in those kinds of things. And I think those are the conversations we had about like, well, what other what other cultures do you have? (Riley Wood, personal communication, 2022).

She also described how her ability to do this has grown since the PD:

I was nervous to talk about [culture and diversity], especially being like a white person. Like, I don't want, I don't know how to talk about diversity and culture, being a white person because I do feel like the point of having these conversations is to help minorities be more represented and be more like, to help white people not be the dominant thing. And so I've never known how to like, talk about it correctly, but to be in a space where we can talk about it safely and realize that [culture is] more than just [race and ethnicity]. (Riley Wood, personal communication, 2022).

Similarly, Jackson found that they feel less pressure to know or predict students' culture to incorporate it into the curriculum now that he learned a more expansive understanding of culture. Now, they feel more confident in having conversations with students where they can advocate for their own interests to be represented in their dances.

I was able to really bring in that culture and like, "oh you guys watch this anime? How did you like the music there? Okay, well, we may have some of that music in the class so be prepared for that." . . . But, "who likes Kpop? okay, you need to send me some kpop songs so we can listen to some kpop songs while we're doing our workout," kind of thing. I was able to really plug in a lot of their cultural things that I know was still relevant at the time. And if it wasn't, kids would always correct me and they would say, "sir, no one's listening to that anymore." Oh, then what you listening to? I know that I was able to more confidently talk to

the kids and not feel like, oh, are they really enjoying my class? Do they really care for it? Am I really striking a connection with them? I didn't always have these what ifs in my head. I was able to be like, "Hey, this is what we're doing here. I'm looking for someone who could give me some good music. So I need you to give me some music because I'm not gonna lie. . . I listen to some like 80s music, So if you want something modern, you need to tell me because I don't know. (Lee Jackson, personal communication, 2022).

Field noted that the PDs made him more intentional in his instructional methods, including his curriculum.

the say in what we learned. So I made sure to include a more, I made sure to include a more inclusive perspective of early American history. So not only focusing on Native Americans, but also focusing on like Mexican populations and Inuit, indigenous Alaskan population, like that, trying to focus on the total continent. . . We're just now discussing the political aspect of the government, the civics, the, the economics, that's what eighth grade is. So by shifting the curriculum slightly and adding these additional perspectives, it makes it more it makes it a more rounded out conversation that kind of the students kind of finally realize they're getting what they missed, you know? (Seymour Field, personal communication, 2022).

He noticed that the students are more engaged because of this new curriculum. The school that he teaches at serves a large Mexican and Indigenous population, so by incorporating these perspectives specifically he was able to connect with the students' interests.

In the professional development, the participants spent considerable time discussing and observing how a teachers' knowledge of students, their cultures, and their preferred learning styles can make a safe learning environment. As mentioned thus far, the participants have been able to use the knowledge of students and their cultures to build caring learning communities. They have used knowledge of students, their cultures, and their communication patterns to adapt their instructional strategies. The next domain, Classroom Management, continues to build upon the previous two domains.

Classroom Management

In the final PD, Dr. Nkrumah and Seymour Field had a lively discussion about teaching and pedagogy. Riley Wood and Lee Jackson were unable to attend, but were still able to participate by watching the video of the PD and completing their reflections. When the PD began, Dr. Nkrumah prompted Field to describe what he considers to *not* be the ideal way to teach by choosing an image. Field shared a picture of the order of operations used in math classes. When Dr. Nkrumah asked him to describe his choice, he had a sly smile. He explained that he wants his students to think critically and challenge what they are told, not follow steps blindly.

This conversation snowballed into the culture of the classroom. None of the participants or Dr. Nkrumah mentioned classroom management during the PD or in their reflections. Yet, all of their reflections were about the culture they want to create in their classroom, and their aversion to having a culture of control. As each participant described their ideal classroom culture, what they were alluding to was behavior expectations, classroom norms, and how they want to respond to students who are struggling, elements of classroom management. Field described striving for a culture in

which every student can speak their mind freely without fear of ostracization or punishment from the teacher. Wood echoed Seymour in her dislike of utilizing control over students in the classroom, and described her ideal classroom culture; she envisioned a "... space and to honor each individuals' feelings, needs, and experiences. It was a very peaceful and healing space to be a part of and I want my classroom to feel similarly" (personal communication, 2022). Jackson described wanting a classroom that was united by the acceptance and respect of each others' differences.

Classroom management is an important skill for teachers to have in order to provide a safe learning environment. The participants in this study spoke about many aspects of their classroom management including structure, routines, and rewards. The two themes that emerged from data from within the framework of Teacher Efficacy and Culturally Responsive Teaching are responding to student behaviors and open communication with students. These themes do not describe their classroom management systems, but rather how their classroom management has evolved since the professional development.

Responding to student behaviors. The participants described feeling more capable in handling crisis situations in their classrooms now that they have learned to utilize their knowledge of their students and their relationship with the student. Lee Jackson described how knowing the students' cultures has provided multiple possible responses that they can choose from to best respond to the situation:

And just having those multiple connections you have multiple pathways of how to deal with a situation or how you can handle a situation with a class and that kind of . . . gives you infinite ways to handle a student no matter how different the student may react. You can have a student that's yelling at you, cussing you out you can still find a way to be able to say, "hey, let's have a conversation about this

and be able to pull their attention, and get their head off of what's causing the, not get their head off on what's causing it but be able to lower their head down a little and be able to come back into what's happening now kind of thing that's very important when having all these pathways (Lee Jackson, personal communication, 2022).

They feel that last year they did not have this degree of confidence to respond to an escalated student. The statistics show that the average pre-survey score for de-escalating disruptive students was 5.75 points, and increased by 2.58 points to the highest post-survey score in classroom management of 8.33 points. They described how last year may have been different had he received the PD earlier in the year:

[If I had received this PD earlier last year], I feel like it'll still be a little bit chaotic but it would have been more tamed . . . when something's happening, I could be able to take that and then handle this situation. . .chronologically, be able to put out one fire and be like okay, how can I assist this one? Okay, now how can I assist this one? . . . So I really feel like it would have been a big change within my whole first year. That confident level would have been way more higher (Lee Jackson, personal communication, 2022).

Wood also described being open to different responses when students display various behaviors. She often mentioned that learning how to respect the students' individuality and life outside of school gave her permission not to take their behaviors personally (Riley Wood, personal communication, 2022). Rather than becoming escalated herself, she found herself experimenting with reactions that built upon her classroom culture:

so I started having them do playback music to me instead of clapping back because if they have their instruments in their hand, they can't clap back to me. . . I told them I was like, 'we're gonna try something and I was like, whenever I do

that, instead of clapping, if you have your instrument in your hand, I want you to play back "A A A C D" . . . and it sounded so good. . . . that's been really functional because they enjoy playing their instrument and they want to show off that they know what they are doing. But then also they're refocusing; they're not able to talk while they're doing it. And then everyone's quiet ready to go once I'm done with the pattern. And I'm like, This is amazing. Why did I not think of this sooner? So like that was kind of a cool thing. As far as like, trying to make sure I get their attention in a way that's not mean or angry or controlling (Riley Wood, personal communication, 2022)

In being confident enough to experiment with a new classroom management technique in order to avoid being "mean" or "controlling," she created a tool that strengthened her classroom community. Her increased efficacy in refocusing disruptive behavior in the classroom is shown in the statistics, this topic had a 1.75 point increase from the pre- to the post- survey. She included other stories where she chose to respond with grace and humor to build the community rather than shame the student who was misbehaving. The following quote depicts an instance in which she sings a tune that was popular on Tik Tok at the time:

There was a kid sleeping in the back of my class. . . I was like "Keisha wake up, I don't like this, Keisha wake up, hey hello" And so many of them, like a couple joined in and then the others got like, beet red and you're like, that was the most cringy thing you've ever done. And I was like, I'm not embarrassed, like, that's your problem, not mine. Like I was trying to be the Cool Teacher bringing in like tik tok stuff or whatever. It's like, I'm not trying to be cool. I'm just trying to get him to sit up in his chair (Riley Wood, personal communication, 2022).

When asked about how she became open to experimenting with new ways to respond to student behavior, she explained:

I think doing it and failing made me realize okay now and what not to do and so now I know the things not to do and I can pull other ideas out of my bag and see if those work and usually the knowing what not to do pretty much anything else will work, like let's not scream let's not yell at the kids. Let's not be horrible to them (Riley Wood, personal communication, 2022).

Later in her interview, Field was asked why she believed the scores increased for the "calming a noisy or difficult student" competency. Her response speaks to the theme of responding to student behaviors:

... they are human beings outside of our classrooms and they have other things going on all the time before they see us. And it's not like their life just exists for the 15 minutes, 50 minutes that they're in our room, and having more conversations about like what those things look like outside and . . . what makes all of them diverse from each other and how we can actually be in like a classroom together and make sure that they're feeling comfortable and supported and confident (Riley Wood, personal communication, 2022).

In this response, she did not cite a specific teaching method that increased her confidence in responding to a disruptive student. Rather, she acknowledged a shift in her mindset. In place of a punitive mindset towards student behaviors, she humanized the students and prioritized their feelings of comfort, support, and confidence. While this is not explicitly a classroom management system, her descriptions of her new mindset exemplify the classroom culture she has created this year. The surveys showed that the participants' confidence in creating a classroom management system increased by 1.25 points from 6.75 to 8 points.

Seymour Field described how he has adjusted his response to students talking during instruction:

I find myself pausing more. Whereas like, I used to be, I used to try and be louder than the students. The only reason I paused more is because with this group, it seems to work more. Like other classes, I'll make loud noises because that's what they need. . . Because I realized that I kept, I kept repeating myself, and it wasn't even that I had to get louder than them. I guess I'll always get louder. That's not a problem. But it was the fact that I could say the same thing 50 different ways. But they're still just hearing "Be quiet." Like they're hearing the same command. So eventually, they're going to get numb to it (Seymour Field, personal communication, 2022).

In this reflection, Field demonstrated his willingness to experiment with new methods to respond to the students' needs. This is supported by the results from the surveys, that the participants' self-efficacy for calming disruptive behaviors increased from 5.25 to 7 points. When he recognized that his message was not being communicated effectively, he placed the locus of control within his role as the teacher rather than blaming the students. In doing so, he found a more effective way to communicate with the students so that they can be successful.

Open communication with students. The participants have described having more success with whole classroom management through open communication. This also includes sharing their personal emotional state with the class and capitalizing on the empathy within their class community. Jackson describes how their communication has changed since attending the professional development. They explain how last year they were unable to have the open communication and how it affected their ability to help their students:

... I feel like last year I was very that person of, "Just talk to me. Just talk to me, talk to me." But I didn't, I guess I missed that disconnect of understanding that, "well we want to talk to you but we don't know how to because we don't know who you are as a person." So like that. I felt like [I] kind of made a disconnect with a lot of the students (Lee Jackson, personal communication, 2022).

This year, as shown previously, Jackson described having a better understanding of how to build a classroom community and stronger teacher-student relationships. They found that this made their communication with students more effective.

... they're just gonna know that you want... them to succeed and it makes that conversation way more easier for the kid as well as makes it easier for the teacher to bring up, "hey, you're not doing good in my class. Is there something going on? It's not just like ... "Oh, you're a troublemaker, get out my face," kind of thing. And they really see that we're caring (Lee Jackson, personal communication, 2022)

The change from last year to this year shows movement in his perceived locus of control. Last year, they perceived the locus of control as being with the students when they would expect the students to begin the conversation. This year, they have been more successful in their communication because they have been recognizing that the locus of control is with the teacher. In other words, they have taken the responsibility to build trust with the students and approach their struggles from a supportive angle. Their new confidence in responding to students who are often labeled as "trouble-makers" is supported by the survey data. The topic about responding to a defiant student increased by 1.33 points. Wood and Field shared stories in which they, too, took the supportive angle described by Jackson. Wood found that she was able to stay calm in a crisis situation when a student fell and broke an instrument.

... the other kid who just broke the cello comes up and he's sitting there like standing just looking at me. And I'm like . . . "do you need something, are you just processing?" And, like I'm so much more calm than I thought I would be because I was very frustrated, but I knew like accidents happen. It is what it is and no one's doing any of this on purpose. So I was . . . keeping a lot of internal peace. . . . And he's like, "no, no, I'm just processing" and I'm like, okay, accidents happen (Riley Wood, personal communication, 2022).

In this instance, Wood was able to calmly respond to a major accident in the classroom while simultaneously assisting the student in naming his emotions to be able to process them. Rather than allowing her frustration to shape her response, she created an open communication and upheld the safe classroom environment for all of her students. Field had a similar experience in which a colleague sent him an escalated student with whom he had a strong relationship in hopes that Field would be able to de-escalate the student for her:

I'm just like, yo, where's this coming from? Like, does that make sense?...At least in the moment, it seemed like a kid who didn't really care about himself, and so my approach is to try and kind of show him that he needs to care about himself. And not...be like, "Oh, I care about you, it's fine!" But more trying to just be like, "Yeah, this isn't going to help you. We need to do things that help us because you care about yourself more than you care about school, right?" You know, kind of thing like that show him that he does actually value, the, he does value the traits that he holds even if they don't fit in this school context (Seymour Field, personal communication, 2022).

In this scenario, Field exhibited an asset mindset of the student by encouraging the student to recognize and value traits within himself. Field was able to draw on the student's values outside of school in order to coach him to adopt reactions that improve his situation. He also modeled the openness necessary for effective communication by not saying empty words to placate the student. He identified the difference between saying "I care about you" and showing care to a student by responding to their needs. Wood and Field also recounted how being open with students about their feelings in the classroom had positive results. Wood described how she communicated with one of her classes the day the cello broke:

And I finally just tell them I'm like, 'okay guys I'm in a horrible mood today. I am going to try not to take it out on you but like I need you to work with me and be following the directions the entire time. So the last hour was really bad. We had a cello get super damaged. I am very overwhelmed right now. I needed to be quiet and I will get class started in five minutes.' And they were, like, really willing to work with it (Riley Wood, personal communication, 2022).

Wood reported that having that open communication successfully turned a classroom management struggle into a productive end to a class period. This approach allowed her students to be successful in following the classroom rules and maintain the classroom culture even though she was struggling. Her reflection on her ability to get her class to follow the rules this year is evident in the survey scores. The pre-survey score for getting students to follow classroom rules was a 6.25 followed a post-survey score of 7.67. Field described a similar instance where the class was being disruptive.

It really just kind of kept falling apart because I couldn't, I don't know, I couldn't manage them that day. And so I was trying to think about ways that I could do it and I just couldn't. And it was the end of a really long day and it kind of just defeated me. . . But I just remember feeling like I had no answer to this problem. I had no solution to what was happening. And so it just really felt tough because I

was trying to think about the kids and what I could draw from them to then relate back to them and there was nothing I could think of in the moment (Seymour Field, personal communication, 2022).

Like Wood, Field's response to feeling defeated and out of ideas was open communication:

And I kind of told them that. I was like yeah, I'm gonna be honest with you guys. I don't really want to keep teaching right now. Like I just kind of want to chill. You guys already know what to do. And they're smart enough, you can read the instructions. So I just want y'all to go ahead and work on. If you got a question walk up to my desk, let me know. And I don't know, to their credit, they did better and like, you know, some of them did still finish and did pretty well (Seymour Field, personal communication, 2022).

When asked if communicating his feelings to his class is something he does regularly he explained that it is. He had found that "... the open communication makes it more effective in working with each other" (Seymour Field, personal communication, 2022). Whether communicating with a single student displaying undesirable behaviors or with an entire class, the participants frequently expressed experiencing success when they were able to communicate openly, and authentically with the students. Within the classroom management domain on the surveys, the two questions that exhibited the most growth from pre- to post- were "How much can you do to control disruptive behavior in the classroom?" and "How much can you do to calm a student who is disruptive or noisy?" In the stories shared here, the participants illustrated their ability to go beyond calming or controlling the students. They were able to support the students in setting higher expectations of themselves, reframing their self-talk to process their emotions, and build empathy within the classroom community. While it could be argued

that the teachers' improved confidence in their classroom management was a result of experience, the commonality in the participants' stories was a shifted mindset. The mindset shift was one indicative of Culturally Responsive Teaching. When explaining their thought processes, they expressed concern for the student as a human outside of just being their student. They frequently cited using their knowledge of the students' interests, cultures, and communication styles to teach them more effectively. The participants' interviews showed an increased sense of efficacy as a result of their exposure to CRT.

Unexpected Results

In addition to the themes related to the theoretical framework, Teacher Efficacy and Culturally Responsive Teaching, there was an unexpected theme that emerged from the interview data. The theme was the development of their authentic teaching persona and how they show up in the classroom. This theme does not fall under the domains of Teacher Efficacy, however it provided a new perspective on how the teachers' sense of efficacy was impacted by the professional development. Some sub-themes included preconceived notions of teaching, judgment from other teachers, and authenticity. The participants described feeling excited at the prospect of being able to break away from their concept of a traditional teacher. One of the participants had mixed feelings about departing from what she considered traditional teaching methods due to how she anticipated other teachers would perceive her teaching persona. Finally, all of the participants found increased confidence due to being more authentic in their teaching this year.

Teaching Persona. The teachers in this study made multiple references to what seemed to be a universally accepted concept of what teaching looks like and sounds like. In their first year of teaching, Lee Jackson found themself feeling trapped in acting

how a teacher is *supposed* to act. They reflected on how they felt going into this year versus last year:

And I was able to be more of my, I guess, more myself with the kids [this year], than feeling like I have to be, I guess this typical TV teacher of "blah blah blah dance, blah blah dance," Like the Charlie Brown kind of thing where the [imitating the teacher in Charlie Brown] . . . I felt like that was the kind of crutch within my teaching last year (Lee Jackson, personal communication, 2022).

They described how their interactions with students have changed since they broke free from the notion of having to act like a typical teacher:

[This year] I wasn't so like, "Oh, this is dance, this is what I did as a dancer. This is what I am. Dance Dance Dance Dance" with the kids. I was able to be very more relaxed with the kids and be like, "yeah, I do dance and all but I watch anime, have you guys watch this anime?" Like, I was able to really bring in that culture (Lee Jackson, personal communication, 2022).

They went on to explain how their image of a teacher changed since the professional development: "now I realize teaching is not only about 'oh, hi I'm teaching, you are doing this, you are learning this, this is your homework' but no, it's actually listening to the kids" (Lee Jackson, personal communication, 2022). Wood also mentioned what she felt she was *supposed to* prioritize as a teacher. She described how she had begun moving away from that however to allow room for new priorities she gained since the professional development such as creating a caring learning community that values students' individual lived experiences.

So I think something from our PD was that, like, they all have these individual experiences that they're bringing to class every day and even though we're supposed to be focused, and we're supposed to be like learning, and my job as a

teacher is to make sure we stay on track. I always end up opening up a few minutes throughout the class period scattered here and there to let them just [talk] about random stuff (Riley Wood, personal communication, 2022).

This quote exemplifies her adoption of a culturally responsive mindset. However, Wood had also struggled with how she would be perceived by others who still value a traditional teaching persona.

I have, like, two very conflicting ideas about it and I, it feels good at the same time, that it feels bad. Because I, we, live in this educational system where there are a lot of teachers who I think could walk into my room and judge me for being a bad teacher because if they only saw that moment, they might think that we're not getting anything done in class ever, that I don't have any control, that I have no classroom management that the kids are in charge, that they walk all over me that you know all these other things about me just not being like a good teacher and just wanting to maybe be the fun teacher, be the teacher that the kids like, so that you know, like, I don't know, like yeah, there are a lot of these negative things I feel like that are associated with being a young new teacher, and building relationships with kids (Riley Wood, personal communication, 2022).

While this fear of judgment from fellow teachers had created a struggle for her, she still displayed pride in the classroom environment she has created and recognizes the benefits she has experienced from her new set of priorities.

So I'm like, I'm willing to sacrifice learning a couple songs, if it means that they get to like have conversations and learn about each other and learn about their own experiences and talk about and process. And that was something that I think, I feel guilty about a lot. But I think it's been helpful for us, for the students to know that they can exist as a human being in the classroom with all these other

things that they bring to the table. All the other experiences that lead them up to coming into my classroom and then it doesn't just have to be 'orchestra or don't talk' (Riley Wood, personal communication, 2022).

She concluded by identifying the standard educational system as a barrier in implementing a CRT mindset:

So I enjoy that they can have the conversations, but I have the standard educational system like hovering over my shoulder, like telling me how I'm supposed to be doing things and so that back and forth is really hard (Riley Wood, personal communication, 2022).

This was a common theme in Wood's interview. Jackson and Field did not express the same concern.

Finally, all three participants placed significant value on their ability to be authentic in their teaching persona. Jackson explained how trying to imitate the traditional teacher image created distrust within their class community last year. They said that their students did not know what to expect from them: "the students . . . be like, 'So how is this dude really? Like, is he more strict or is he more joking? Kind of thing?' And that's where that divide happened." This year, Jackson built trust between themself and the students by sharing about their cultures and their interests. They credited authenticity in their ability to support the students more effectively this year:

I would definitely say it's the culture. . . if they don't know my culture and what I'm into and what culture, I guess, groups that I fall into, they're not going to know who I am. And kids look for that. They want to know who you are. Maybe you're the only teacher that really talks with them. And they're just having a bad day they need an adult to talk to. They know that they're getting the authentic me and it's not just, "I'm here for a job, Let me go ahead and just do this teaching

blah blah" kind of thing. No, they're getting to know who I am. They're realizing, Oh, he's willing to work with me (Lee Jackson, personal communication, 2022).

Wood found that in being authentic herself, she created a self-sustaining classroom community. After her students discovered her love of hiking, she began to bring more stories of her personal hiking adventures into her classroom.

... it's cool that they were able to see me in my own way, out, as a human being outside of the classroom with, like, hobbies and things that I enjoy doing other than just being a teacher. And then they're starting to find interest in it too ... And so I feel like that's helped strengthen a lot of the relationships that we have and like it just opens more of the conversation because then they share things that they do in places they go and and it just, it continues. So that was really cool.

It was really cool. (Riley Wood, personal communication, 2022)

In her statement "then they share things . . . and it just . . . continues," she illustrated how investing time in developing a class culture creates a sense of trust and vulnerability in the learning environment. She gave another example of a time when being herself strengthened the relationship between her and her students. She explained how she felt that the definition of culture the participants learned in the PD gave her permission to be more authentic in her classroom and express her individuality:

I don't feel, like, self conscious and I'll just be like, well, just because it's my experience doesn't mean it has to be yours. And if you don't understand it, or you don't see it the same way because I thought it was hilarious. I thought that was so funny. And I didn't feel like any kind of way about it. And so I feel like that's helped me be more authentic. And I think they like the authenticity more than

like trying to do what you think they're doing is cool (Riley Wood, personal communication, 2022).

In this story, the students responded better to her when she showed her sense of humor than when she had previously tried to fit in with their culture. The lack of selfconsciousness indicates her increased confidence in her role in the classroom.

This unexpected theme, Teaching Persona, provided valuable insight into how these novice teachers' sense of efficacy was impacted by an introduction to Culturally Responsive Teaching. For Wood, while being more authentic had a positive impact on her classroom environment, she now faces an internal battle. She feels pressured by the "standard educational system" to maintain a traditional learning environment but is simultaneously experiencing success as she strays from a traditional teaching mindset. Jackson and Fields' reflections indicated that becoming aware of this mindset gave them permission to be themselves in the classroom. They found it provided validity for investing class time in community building. Field summarized his belief when it comes to his teaching persona, "I don't try to change who I am while I'm teaching because I feel like you can't fake the funk with the kids. They really pick up on it" (personal communication, 2022).

CHAPTER 5

DISCUSSION

The data from this study showed that receiving professional development on Culturally Responsive Teaching improves novice teachers' self-efficacy. The survey data showed increased self-efficacy beliefs in every area, supported by the qualitative data. The written reflections showed that the participants began the professional development enthusiastically but with concerns about time constraints and their ability to implement it. The follow-up interviews, however, showed that their newfound knowledge of and hands-on experience with CRT improved their confidence in building classroom culture, responding to student behaviors, and making learning accessible to all of their students. This means that their initial concerns were shaped by their experience of teaching thus far during which they had lower confidence in their abilities to perform teaching tasks adequately. With increased confidence, the time constraints and their abilities to implement were no longer a concern.

The results of this study mean that providing novice teachers with the opportunity to observe, participate in, and reflect on CRT can improve their experiences teaching in their early years. This is a significant finding due to the alarming rate of burnout within the teaching profession. A recent study by the National Education Association showed that 67% of educators indicated that feeling burnt out is a "very serious problem" and an additional 23% felt it was a "serious problem" (Jotkoff, 2022). In the literature review section of their study, Saloviita & Pakarinen (2021) cited studies showing that teachers who are devoted to strong student-teacher relationships, warm and supportive classroom cultures, and discovering multiple ways to relate to the students experienced lower burnout rates and improved academic performance by their students. After

receiving the PD, the participants reported higher efficacy beliefs in each of these areas which could improve their job satisfaction, thereby decreasing their risk of burnout. All three teachers in this study work in Title I schools and therefore serve vulnerable populations. The statistics from the introduction illustrated the disparities that exist between white, middle-class, eurocentric students and students of low-socioeconomic backgrounds and/or students of color, particularly the rates of suspension and lower academic outcomes (American Psychological Association, 2017; Arizona Department of Education, 2022; Cherng, 2017; Sparks, S. D., 2020; US Department of Education, 2019a; US Department of Education, 2019b). The participants' increased confidence in responding to disruptive and defiant students means they are less likely to rely on punitive measures such as suspensions. Their increased confidence in providing alternate explanations and strategies alludes to their PD in CRT. Culturally responsive teachers utilize students' cultural frames of reference to help students construct new knowledge (Gay, 2000), in other words, being responsive to individual students' cultures and learning styles. In doing so, the teachers create equitable learning environments for students of all cultural backgrounds and increase the potential for positive academic outcomes.

Based on these findings, I suggest that Culturally Responsive Teaching be embedded throughout teacher education programs as well as teacher induction programs for novice teachers. This would begin with requiring education professors and novice-teacher mentors to receive PD on CRT. This would create a similar effect to Dr Nkrumah's PD in that the pre-service teachers and novice teachers would be able to observe and experience culturally responsive mindsets and culturally responsive teaching techniques throughout their education and into their early years of teaching. Dr. Nkrumah was transparent with the participants that she was teaching them about CRT by modeling it.

The participants were able to experience a Culturally Responsive learning environment and feel its positive effects that they can then apply to their own classroom and teaching. Watching a training video or listening to a lecture on CRT would not have produced the same results since CRT is based on trusting relationships. Novice teachers need to experience it themselves to buy into the pedagogy and then apply it. Therefore, considering the effectiveness of the PD in improving the participants' self-efficacy scores in only three sessions, it is necessary that novice teachers receive the opportunity to observe and experience CRT as a learner, and have opportunities to reflect on their application of the pedagogy for continued growth.

It is important to note that the areas of Teacher Efficacy that received the least significant increases on the surveys were those that referred to specific skills such as creating a classroom management system and crafting questions for students. The PD taught the participants to reframe their mindset on how they approached students and teaching, and did not teach them specific skills. However, the list of attributes that led to lower rates of burnout were all related to the teachers mindset and not their teaching methods. Dr. Nkrumah stated repeatedly that she was modeling how to be culturally responsive for the participants, and through modeling and reflective discussions the teachers became more efficacious. Therefore, if pre-service and novice teachers were able to experience Culturally Responsive Teaching in each of their methods/art of teaching courses as well as their theory-based courses they would develop both a CRT mindset as well as a CRT skill set. This would theoretically mean fewer novice teachers experienced burnout and more of their students would experience academic success. Additionally For maximum effectiveness, teacher preparation programs should require a course dedicated to CRT to address the areas that have proven more difficult for novice teachers. Siwatu (2007, 2011) had similar results that adopting a CRT mindset was

beneficial to novice teachers' self-efficacy. However, she also found that the teachers scored lower on areas focused on CRT skills such as family involvement, speaking to students in their native language, and incorporating critical thinking towards curriculum. These findings were present in this study, as well, with family involvement being the lowest score on the post-survey. Therefore, to address the needs of the most vulnerable students a course dedicated to the implementation of CRT would be beneficial to novice teachers in helping them be well-rounded in their efficacy beliefs. As teachers leave their teacher preparation program and enter their careers they need continued support and guidance to navigate their early years of teaching. This study illustrates the necessity for providing novice teachers with mindset-based induction programs, as well as a mentor that can continue modeling CRT. While novice teachers face time constraints and the added stress of being a new teacher, school districts must prioritize building their novice teachers' self-efficacy as this study has shown quality training in CRT does. This PD showed promising results for increasing novice teachers' self-efficacy in only three sessions due to Dr. Nkrumah's method of modeling and allowing time for reflection for the participants' shifting mindsets. Woolfolk Hoy and Spero (2005) found that teacher efficacy increased during student teaching but decreased during their first year of teaching. Their hypothesis was that pre-service teachers "underestimate the complexity of the teaching task and their ability to manage many agendas simultaneously" (Woolfolk Hoy & Spero, 2005, pp 353).

While some districts already offer new teaching induction programs to assist new teachers, they are varying in quality. Results of a study of induction programs in Australia indicated that assigning mentors to novice teachers was far more beneficial than providing workshops (Abu-Alhija & Fresko, 2016). Seeing the effect of this three-session PD on the participants' self-efficacy compared to Abu-Alhija & Fresko's (2016)

results on the effectiveness of workshops emphasizes the importance of Dr. Nkrumah's approach to professional development. Therefore, it will not be sufficient to provide generic PD on CRT for novice teachers in the induction program. Districts will have to dedicate time and resources to identifying instructors who are committed to modeling mindset changes rather than supplying teachers with quick-fixes. Providing novice teachers with a mentor will provide continued modeling and opportunity for guided reflection. It will be necessary that the district provides the same training on CRT to the mentors and mentees to provide the novice teachers a consistent model of efficacious and Culturally Responsive teaching. The results of this study are promising for not only improving novice teachers' self-efficacy, but also reducing teacher burnout, reducing the overuse of punitive measures, and improving equity in classrooms.

CHAPTER 6

CONCLUSION

This study supports the findings of preceding research. The participants showed increased TE in all areas according to the pre- and post- survey. However, upon hearing their reflections, it is clear that the most significant impact was on relationship building, a common conclusion in Teacher Efficacy research on CRT (Callaway, 2017; Meristo & Eisenschmidt, 2014; Siwatu, 2007). The results of this study are also aligned with Bradshaw et al. (2018) in their conclusion that while professional development on CRT improves knowledge, attitude, and beliefs, it does not necessarily influence teacher and student behavior. However, based on the existing data that shows that teachers with higher efficacy are more likely to persist with failing students (Gibson and Dembo, 1984), to accept the locus of control in their role as the teacher and not on home environment (Callaway, 2017), to have a willingness to try new things (Bandura, 1977), and have a heightened awareness of the resources available to them (Rotter, 1966), it stands to reason that a shift in mindset is likely to have a significant impact as the teachers continue to gain experience and experiment with new instructional strategies.

As this study was limited in size and time, further research should be conducted to replicate the findings so that CRT may become integrated into teacher preparation programs and teacher induction programs. The limitations of this study precluded the opportunity to observe the teachers in their classrooms to confirm whether or not the PD had impacted teacher and student behaviors which would have provided insight into how the CRT mindset manifests in the classroom. Additionally, the participants of this study opted-in to the professional development, implying a pre-existing interest in Culturally Responsive Teaching. Their willingness to participate and learn about this topic may have impacted Dr. Nkrumah's ability to affect their self-efficacy through the

PD. It would be prudent to examine if Dr. Nkrumah's modeling style of professional development had the same effect on teachers who were mandated to receive this training. Finally, future research should build on these findings to uncover the impact CRT and TE have on novice teachers' burnout rates.

This opportunity for growth is evident in the participants' stories. As they experienced success with the CRT mindset in building community, they began creating more opportunities for students to be represented in their curricula via song selection for dances and learning local history. As they continue to collect vicarious experience, a key ingredient for TE (Bandura, 1977), the CRT mindset can begin producing new teacher and student behaviors to offset the inequities that exist in schools. The other studies on TE and CRT have produced valuable information on teachers' CRTSE. This study, however, looked at how CRT impacted overall TE. A teacher's overall TE can impact their motivation, their likelihood to explore new teaching methods, and their perseverance (Bandura, 1977) in a field plagued with burnout. It would be beneficial for teacher preparation programs to embed the Culturally Responsive Teaching mindset throughout their courses and provide ample opportunities for pre-service teachers to observe and practice Culturally Responsive Teaching techniques.

As this study shows that CRT has a positive effect on TE, a case could also be made to provide more PD opportunities to teachers on implementing CRT. While this study is supported by and in turn supports the findings of these studies, these results offer an important addition to the body of knowledge surrounding TE and CRT. Participating in professional development on CRT increased the participants' general teacher efficacy. The impact of the PD is not limited to their confidence in being culturally responsive. Rather, the PD increased their confidence in engaging students, applying and experimenting with instructional strategies, and creating caring learning

communities via strong classroom management. Gaining an awareness of Culturally Responsive Teaching had a positive effect on these novice teachers' sense of efficacy.

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APPENDIX A

SURVEYS AND FORMS

DATA COLLECTED MAY-AUGUST 2022

The following table displays the interest survey, the consent form, and the demographics survey. Each participant completed all three sections before beginning the study.

What is your name and preferred pronouns? Ex. Kelsey McAlarney, she/her
Do you currently teach in a K-12 school? And, are you in your first 3 years of teaching? If no, you may still qualify or be placed on a waitlist. Please continue filling out your interest form.
 Yes, I am currently teaching and I am in my first 3 years of teaching.
 Yes, I am currently teaching but I am not in my first 3 years of teaching.
No, I am not currently teaching by I am in my first 3 years of the teaching experience.
 No, I am not currently teaching and I am not in my first 3 years.
Do you teach at a Title I school?
○ Yes
○ No
How would you like to be contacted for participation in the professional development and research? Please include contact information (Ex. e-mail, myname@gmail.com) This research project is aiming to recruit 12 participants based on eligibility. Individuals who are not chosen to be included will be placed on a waitlist and contacted if someone drops out. I appreciate your interest and look forward to connecting with you.

Appendix A1: Interest survey for participating in the study

Research Consent Form

I am a graduate student under the direction of Professor Kimberly Scott in the Department of Social and Cultural Pedagogy at Arizona State University. I am conducting a research study to investigate how professional development on Culturally Responsive Teaching affects novice teachers sense of efficacy. I am inviting your participation, which will involve:

- 1. completing a 10 minute pre- and post- survey
- 2. attending three free professional development sessions on Culturally Responsive Teaching on April 11, April 28, and May 2. They will be one hour each on Zoom.
- 3. participating in a writing a reflection at the end of each session (this is included in the one hour professional development time-frame).
- 4. completing one, hour-long follow-up interview in August

You have the right not to answer any question, and to stop participation at any time. Your participation in this study is voluntary. If you choose not to participate or to

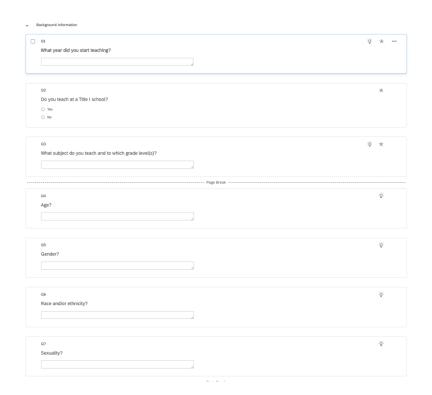
withdraw from the study at any time, there will be no penalty.

To be eligible, you must be in your 1st, 2nd, or 3rd year of teaching. You must be 18 or older to participate in the study. By participating, you will receive three hours of professional development for free from an expert in the field of Culturally Responsive Pedagogy. These hours can count towards recertification, and some districts may accept these hours towards salary schedule movement. You will gain an understanding of culturally responsive practices and learn to apply culturally responsive techniques in your interpersonal interactions and planning. You will expand their professional network to include other teachers who are interested in culturally responsive teaching practices. Finally, your professional network will include other novice teachers that can provide you support through shared experiences.

There are no foreseeable risks or discomforts to your participation. We will use pseudonyms to protect your anonymity, and the results will be analyzed as a group, not individuals. Your responses will be anonymous. The results of this study may be used in reports, presentations, or publications but your name will not be used. The results will only be shared in the aggregate form.

I would like to video and audio record the professional development sessions as well as the follow-up interview. The interview will not be recorded without your permission. Please let me know if you do not want the interview to be recorded; you also can change your mind after the interview starts, just let me know. If you have any questions concerning the research study, please contact the research team at: kmcalarn@asu.edu. The Principal Investigator can be contacted at kascott3@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788. By signing below you are agreeing to be part of the study.

Appendix 1b: Consent form for participating in the study



 $Appendix \ 1c: \ Demographics \ survey \ for \ participants$

APPENDIX B

RECRUITMENT MATERIALS

DATA COLLECTED MAY-AUGUST 2022

The following images are the recruitment materials used in this study to find participants. The first image, Appendix B1, was posted on Instagram weekly for the two months leading up to the first PD. The second image, Appendix B2 was the flier distributed by email.



Appendix B1: Instagram Recruitment Image



Appendix B2: Email Recruitment Flier

APPENDIX C

PRE- AND POST- SURVEY

DATA COLLECTED MAY-AUGUST 2022

Appendix C1 contains the Teacher Sense of Efficacy Survey short form by Tschannen-Moran & Woolfolk Hoys' Teacher Sense of Efficacy Scale (2001). This survey was used as a pre- and post- survey for each participant. Appendix B2 contains the survey scores for both the pre- and post- survey, as well as the averages for each question.

Teachers' Sense of Efficacy Scale¹ (short form)

	Teacher Beliefs		Но	w m	ucl	ı ca	n y	ou (do?	
	Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing		Very Little		Some		Quite A Bit		A Great Deal
1.	How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2.	How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4.	How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5.	To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.	How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8.	How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.	How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10.	To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12.	How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Appendix C1: Tschannen-Moran & Woolfolk Hoys' Teacher Sense of Efficacy Scale (2001)

		Pre Survey	Post Survey	İ			
Q#	Question	(Mean)	(Mean)	Difference			
È	Student Engagement						
	How much can you do to get through to the most						
1	difficult students?	7	9	2			
1	How much can you help your students think	/	,	_			
2	critically?	7	8	1			
	How much can you do to motivate students who	,					
4	show low interest in school work?	6	7.67	1.67			
	How much can you get students to believe they can						
6	do well in school work?	6.5	7.33	0.83			
	How much can you do to help your students value						
9	learning?	6	7	1			
	How much can you assist families in helping their						
22	children do well in school?	5.5	6.33	0.83			
	Mean Score	6.333333333	7.555				
Diffe	erence for Student Engagement:			7.33			
	Instructional Strateg	ies					
	How well can you respond to difficult questions from						
7	your students?	6.75	8.67	1.92			
	To what extent can you craft good questions for your						
11	students?	5.5	6.67	1.17			
	How much can you use a variety of assessment		_				
18	strategies?	6	7.67	1.67			
	To what extent can you provide an alternate		0	0			
20	explanation or example when students are confused?	6.25	8.33	2.08			
	How well can you implement alternative strategies in	6.05	0				
23	your classroom?	6.25	8	1.75			
D:00	Mean Score	6.15	7.868	0			
Diffe	erence for Instructional Strategies:			8.59			
	Classroom Manageme	ent					
	How much can you do to control disruptive behavior						
3	in the classroom?	5.25	7	1.75			
	How much can you do to get students to follow the classroom rules?	6.0-					
13	How much can you do to calm a student who is	6.25	7.67	1.42			
15	disruptive or noisy?		8 00	2.58			
15	How well can you establish a classroom management	5.75	8.33	2.50			
16	system with each group of students?	6.75	8	1.25			
21	How well can you respond to a defiant student?	6	7.33	1.33			
21	Mean Score	6	7.666	1.33			
Diff	erence for Classroom Management:	0	7.000	8 22			
DIIIC	rence for Classroom Management.	1		8.33			

Appendix C2: Pre- and post- survey responses from participants

APPENDIX D

INTERVIEW QUESTIONS

DATA COLLECTED MAY-AUGUST 2022

The following table contains the interview questions for each participant. The warm-up questions were unique to each participant, while the core questions and the wrap-up question were standard.

Warm-Up Questions You completed your first year	You moved grade levels
	Vou moved grade levels
of teaching. Tell me about how you, your teaching, or your thoughts about teaching, changed over the course of the year.	within your first few years. How have you felt about the different grade levels? Can you give me examples of how teaching the grade levels has been different?
last spring. What has it been like going into the school year with this new knowledge?	You had three PDs on CRP last spring. What has it been like going into the school year with this new knowledge?
h y tl Y la	ow you, your teaching, or our thoughts about teaching, hanged over the course of he year. You had three PDs on CRP ast spring. What has it been ke going into the school ear with this new

Tell me about a scenario where you felt like a successful teacher this year. What happened? Describe your thought process as you handled the situation. (teacher efficacy)

Can you tell me about a situation from this school year that was challenging? (teacher efficacy)

I want to hear about your confidence in teaching this school year since your PD on CRP. Can you tell me about any experiences you have had this year that you handled differently than you might have last year? (how efficacy has changed since CRP)

Wrap-Up Question

Show interviewee the descriptive statistics. What do you think about the changes from the presurvey to the post-survey?

Is there anything else you want to add that we did not get a chance to discuss?

Appendix D: Table of interview questions by participants

APPENDIX E

IRB LETTER OF APPROVAL

DATA COLLECTED MAY-AUGUST 2022



EXEMPTION GRANTED

Kimberly Scott

CLAS-SS: Social Transformation, School of (SST)

480/965-5380

Kimberly.A.Scott@asu.edu

Dear Kimberly Scott:

On 3/2/2022 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Mindset Over Method: A Mixed-Methods
	Phenomenological Investigation into the Development
	of Culturally Responsive Mindsets and Novice
	Teachers' Sense of Efficacy
	-
Investigator:	Kimberly Scott
IRB ID:	STUDY00015480
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	Kelsey McAlarney IRB Social/Behavioral Protocol,
	Category: IRB Protocol;
	KLM Consent Form, Category: Consent Form;
	KLM Interest Survey, Category: Screening forms;
	 KLM Pre/Post Survey, Category: Measures (Survey)
	questions/Interview questions /interview guides/focus
	group questions);
	KLM Recruitment Flyer, Category: Recruitment
	Materials;
	KLM Recruitment Instagram, Category: Recruitment
	Materials;
	KLM Recruitment Scripts, Category: Recruitment
	Materials;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 3/2/2022.

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

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

REMINDER - Effective January 12, 2022, in-person interactions with human subjects require adherence to all current policies for ASU faculty, staff, students and visitors. Upto-date information regarding ASU's COVID-19 Management Strategy can be found here. IRB approval is related to the research activity involving human subjects, all other protocols related to COVID-19 management including face coverings, health checks, facility access, etc. are governed by current ASU policy.

Sincerely,

IRB Administrator

cc: Kelsey Mcalarney Kelsey Mcalarney