

CHANGING THE LENS: BUILDING TEACHER CAPACITY TO UNDERSTAND THE  
EFFECTS OF TEACHER IMPLICIT BIAS ON EDUCATIONAL EXPERIENCES FOR  
STUDENTS LIVING IN POVERTY

A thesis presented to the faculty of the Graduate School of  
Western Carolina University in partial fulfillment of the  
requirements for the degree of Doctor of Education in Educational Leadership

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March 2022

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## ACKNOWLEDGEMENTS

I would like to extend my most sincere gratitude to the following people, without whom, attaining my Doctoral Degree in Educational Leadership and carrying out this research initiative would have been impossible. To my disquisition chair, Dr. Heidi Von Dohlen, I offer my endless thanks and admiration. Your honest guidance and feedback allowed me to continue to move forward, not only in this research project, but as a scholar-practitioner. Dr. Emily Virtue, I greatly appreciate timely responses to any question I presented to you about methodology or how to best represent my data analysis. I would also like to thank all of the members of my disquisition committee. I am grateful for all of the time you were willing to devote to this project, and the support you gave me as I progressed through it.

To the professors at Western Carolina University in the Ed.D. Program in Educational Leadership, thank you for sharing your expertise and passion for moving education forward for all students. Dr. Weiler, Dr. Stanley, Dr. Hinnant-Crawford, Dr. Lomotey, and Dr. Crow, I feel blessed to have you as part of my journey of professional growth.

A special thank you to the teachers of Robbinsville Elementary School. You are hardworking and tireless in your dedication to your students. Your drive and devotion made this research project a success.

And lastly, the biggest thanks of all goes to my husband, Jason Hooper. Thank you for always supporting me when things get tough, for never complaining about meals, laundry, or many of the other requirements you have shouldered for me to pursue this dream. You are my rock.

For my children, Alli, Will, Wess, and Logan, know if you can dream it you can do it too. Just go for it.

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## ABSTRACT

### CHANGING THE LENS: BUILDING TEACHER CAPACITY TO UNDERSTAND THE EFFECTS OF TEACHER IMPLICIT BIAS ON EDUCATIONAL EXPERIENCES FOR STUDENTS LIVING IN POVERTY

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Students living in poverty and/or experiencing childhood trauma consistently report suboptimal educational results nationwide. This research study examines the impact of building teachers' capacity in understanding their own implicit bias by addressing classism in the school environment, and assets-based ideology related to students and families living in poverty to increase educational experiences for students living in poverty. To increase teacher capacity to address poverty at one rural elementary school, a four-session professional learning module was delivered containing the following topics: National and local data demonstrating teacher implicit bias, teacher implicit bias and privilege, school discipline and exceptional children data demonstrating disproportionate representation of students living in poverty, assets versus deficit thinking, myths versus realities of poverty, dispelling the culture of poverty, ACEs and their impacts on education, and culturally responsive classroom practices to address poverty at school. A mixed methods model of data collection was used to evaluate the effectiveness of the research initiative. Pre and post survey data were collected measuring teacher beliefs, classroom practices, and implementation of new learning throughout the initiative. Participant written responses were analyzed to determine new learning viewed as important and aspects challenging to their current

perspective related to teacher implicit bias, privilege, and assets-based thinking related to students in poverty. Data results demonstrated a 92.86% participant implementation of classroom practices associated with assets-based thinking, and for students living in poverty, a 25% decline in referrals for exceptional children testing, and a 6.61% decline in out-of-class discipline. Addressing teacher implicit bias, privilege, assets-based thinking, the impacts of trauma, and culturally responsive teaching practices must be considered an essential part of teacher professional development to ensure equitable access to education for all students.

## **Introduction and Problem Statement**

Education is the great equalizer and the American dream is available to anyone who is willing to work hard and go after it. These are fundamental beliefs deeply embedded in American society. However, current research and educational outcomes of students in America's public schools do not support these claims. What is abundantly clear is fewer educational and/or employment opportunities exist for students living in poverty. This is a complex problem with multiple contributing causes. The primary cause addressed in this research study is that within America's public schools, there exists insufficient teacher capacity, because of teacher implicit bias, to support students experiencing classism or living in poverty, resulting in suboptimal educational performance (Ladson-Billings, 2007). Currently, as our educational system exists, it is tailored to white students in middle and upper socioeconomic classes (Bowles & Gintis, 2011). Any individual student, school or community that falls outside that category in race or class is set up for a harder road to success.

As the principal of Robbinsville ES and the researcher/scholar-practitioner of the change initiative outlined in this research study, issues related to students living in poverty is a problem of practice of which I am well aware. I understand this problem has historically affected students in Graham County Schools. Not only am I, myself, a product of Graham County Schools, I am also a child who lived in poverty. Therefore, I have a similar social identity to many students in Robbinsville ES. Personally experiencing poverty as a child and seeing how students living in poverty are continuing to have suboptimal educational experiences has prompted me to address the issue in greater depth.

Having become more immersed in social justice and equity professional learning, as a school leader, I have gained an awareness that I must address issues related to students living in

poverty and teacher implicit bias related to classism with the educational faculty of my school. I now understand that as a white, middle-class, female, I also have implicit biases of which I am now aware and how those biases, although unintentional, can have negative impacts on student educational experiences and overall performance. I must assist the educators at Robbinsville ES to see their own biases and gain a better understanding of the students that enter their classrooms every school day.

### **Definitions**

This research study and the terms used therein are directly related to teachers and their views and biases of students living in poverty. Terms used consistently in this research study are classism, teacher implicit bias, deficit ideology, teacher-student differential, and trauma. Because these terms can have various meanings and are used within multiple contexts, detailed definitions of each term and how it relates to this research study are provided.

For the purposes of this research study, when referring to *classism*, it is in reference to inequities experienced by individuals living in poverty. Classism is defined as “the systematic oppression of poor and working people by those who control resources (including jobs, wages, education, housing, food, services, medicine, and cultural definitions)” (Sensory & DiAngelo, 2017, p. 222). Looking at the system of school with resource allocations, academic tracking, and family engagement for students living in poverty, classism within the school must be addressed.

Classism, because of systemic oppression, can remain invisible to those who are a part of the system. Ladson-Billings (2007) demonstrated with this invisibility, individuals could hold classist views or myths without recognizing them and the hardships that result for vulnerable students and families for which these myths apply. For educators, this is referred to as *teacher implicit bias*. hooks (2014) defined implicit bias as being present but not recognized, as opposed

to explicit bias, which is fully revealed in meaning and intent. Unknowingly, teacher implicit bias can lead to deficit ideology. Gorski (2011) defined *deficit ideology* as a socializing process that conditions educators to buy into certain myths and stereotypes that inform educational philosophy and practice. Teacher implicit bias that leads to deficit-ideology toward students and families living in poverty can have profound impacts on student educational experiences. When educators expect less from students living in poverty and their families, hold conferences at times that are inconvenient for low-income parents to attend, and have classroom practices that do not allow low-income students to see themselves in the curriculum, students living in poverty do not perform as well in school (Gorski, 2018).

Teacher implicit bias and deficit-ideology are directly related to what I have defined as the teacher-student differential. For the purposes of this research study, *the teacher-student differential* refers to any difference that exists between the teacher and their student serves as a barrier to building a strong teacher-student relationship. Examples of differentials include but are not limited to class, race, gender, ability or disability, and exposure to trauma. Increasing teacher understanding of their own lived experiences and how these vary from those of the students they teach can assist educators in recognizing these differentials. This recognition gives teachers the ability to neutralize their own judgments and biases toward their students who have varying differentials from themselves. Therefore, the result is a decrease teacher implicit bias.

Because of oppression and lack of resources due to classism, individuals affected by it can suffer related trauma (Blodgett & Lanigan, 2018; Goodman, Miller, & West-Olatunji, 2012). Cohen, Manarino, & Deblinger (2016) defined childhood trauma as events the child directly experiences, witnesses, or learns about that involve actual or threatened death, serious injury, or sexual violence. They outlined some specific examples including, but not limited to, child

physical, emotional, sexual abuse or neglect, witnessing or being the direct victim of domestic violence, community violence, school violence, motor vehicle or other accidents, natural or man-made disasters, or death of a parent, sibling or attachment figure. Trauma due to food insecurity, domestic violence, housing insecurity, and family-relationship struggles is easier to identify than trauma experienced because of racism and classism. Individuals can identify issues such as hunger and homelessness and easily understand how trauma can result. However, as a result of socialization through a white dominant lens, seeing trauma that results from racism and classism is more difficult to identify and understand. Therefore, the trauma resulting from those societal systems can remain hidden (Sensoy & DiAngelo, 2017). Bowles and Gintis (2011) highlighted lower income communities tend to experience more violence, poor schools tend to have fewer resources and less qualified teachers, and students of color tend to live in poorer communities and attend poorer schools at a higher rate than their white peers.

Crenshaw (1998) demonstrated through the Theory of Intersectionality that students who have multiple variations from the dominant group, which is middle class and white, face issues related to race, class, and trauma. Additionally, minoritized students have layers of need and their struggles can be more magnified compared to students experiencing only one of these differentials from the dominant group. Therefore, because of racism and classism, students of color living in poverty are at a higher risk of experiencing childhood trauma than their white middle-class peers.

An example of using the lens of intersectionality to shine a light on a race and gender related problem that would otherwise remain invisible is high level of violence experienced by indigenous women. Statistically, indigenous women are 2.5 times more likely to experience violent crimes, 2 times more likely to experience rape/sexual assault, with 54% of those sexual

assaults occurring before age 12, and 84% of indigenous women reported experiencing violence in their lifetime (Issacs & Young 2019; Smith-Norris, 2020). This elevated level of violence for indigenous women demonstrates a higher risk for the possibility of childhood trauma compared to non-indigenous women.

In reference to the teacher-student differential, having multiple differences from a teacher, such as a different race, social class, and lived experiences of trauma may also magnify student need and affect school performance. However, for the purposes of school improvement and this research study, where, how, or why the student comes to school with childhood trauma is not the primary concern. The focus is to ensure educators are prepared to effectively educate the student as well as to ensure the school system is not re-traumatizing the student due to teacher implicit bias.

### **Outlining the Problem**

American meritocracy, the idea that success is determined by one's efforts, talents, and education is a deeply held belief in American society (Mijs, 2015). This ideology is based on a belief that America offers everyone an equal chance. However, the reality is that American meritocracy is a myth. In reality in this nation, African Americans are incarcerated at higher rates than their white peers for similar crimes. Families living in poverty must work many more hours to sustain basic needs compared to middle- and upper-class families, and job opportunities are regularly given to white applicants over minority applicants who have more qualifying credentials (Gorski, 2008, Sensoy & DiAngelo, 2017).

The reality in America's public schools is also one of inequity that dispels the myth of meritocracy when closely examined. The reality is that African American students are disciplined at a rate much higher than their white peers. America's poorest schools also house

America's lowest performing teachers. Students living in poverty are defined as having an educational disability at a rate 50% higher than their middle- and upper-class peers, and in classrooms across this country, students experiencing trauma are continually struggling with attendance, behavior, coursework and overall health issues (Chambers 2009; Ladson-Billings 2007; Larkin, Shields, & Anda, 2012; Souers & Hall, 2016).

The data is clear. Everyone does not have equal opportunity and regardless of effort or talent, individuals facing race and class differences from the white, middle-class dominant group face more struggle and adversity. The ideology of American meritocracy, although false, is harmful. If the belief is that the system is working, then the belief is also that those who fail do so by their own fault (Mijs, 2015). Therefore, this notion releases any one or any system from responsibility for the failure, leaving all fault for the failure with the individual. Educators must understand the realities of inequities and injustice that exist inside America's public schools. This myth must be dispelled and teacher professional learning about racism and classism must expose and address the implicit biases associated with the belief in American meritocracy.

Because of these societal disparities, leaders and educators that have large demographics of students in poverty must understand the elevated risk factors of their student population. Responsive interventions, like take-home food bags and clothes closets are easy steps to address physiological and safety needs of students. These are needed interventions that are easy to identify and equally as easy to implement. More difficult student needs to address are behaviors related to trauma, building strong student-teacher relationships, and ensuring the student feels connected to education and valued at school (Souers & Hall, 2016). School system issues that need to be addressed are funding disparities for schools in poor communities, recruiting and retaining high-quality educators in poor schools, and building teacher capacity to understand



their own implicit biases. If unaddressed, these areas have major effects on academic performance, such as consistent student suboptimal educational outcomes on standardized tests, inequitable student discipline, and academic tracking (Chambers, 2009).

Due to a lack of professional learning opportunities addressing classism and teacher implicit bias, many school districts struggle to find individuals comfortable and competent teaching teachers about classism and teacher implicit bias. A high-quality training curriculum in reading and math interventions is much easier to ascertain for teachers than training on classism and teacher implicit bias. According to the Teaching and Learning International Survey (TALIS, 2018), 7% of U.S. teachers reported a high need of professional development in approaches to individualized learning and only 6% reported a high need of professional learning in teaching in a multicultural or multilingual setting. Comparatively, the TALIS average among teachers from other nations was 15% and 16% respectively. With such low numbers of teachers understanding a high need for this type of professional learning, and school leaders lacking a social justice and equity understanding, school systems are not inclined to spend money on these areas. Therefore, as outlined by Bowles and Gintis (2011), a continuance of a need to build teacher capacity in understanding classism and their own implicit bias is a common occurrence across public schools in the United States.

Compounding this issue is school districts, administrators, and teachers are ill prepared to effectively address issues related to classism, and the possible childhood trauma that results. Monies and resources in rural districts are limited and often times used for other purposes (Sacks, Murphey, & Moore, 2014). Additionally, teacher preparatory programs foster limited teacher understanding in areas of diversity, focusing more on pedagogy. The result is students of color in rural school districts who live in a community with a low-socioeconomic status/high

poverty level and who may experience childhood trauma because of racism and classism continue to struggle in school with academic performance (Larkin, Shields, & Anda, 2012).

### **Historic & Current State of the Problem**

Children living in poverty and having suboptimal educational experiences is a complex issue with multiple contributing causes. To take an in-depth look at this issue, one must consider the external factors contributing to the struggle (societal and environmental), internal factors (issues within schools), and national teacher demographics (teacher demographics compared to the demographics of the students they teach). Examining these areas brings clarity to the complexity of this problem and how it continues to be reproduced in America's public schools.

#### **External Factors**

To begin to understand the problem, it must be made clear that trauma and poverty are prevalent among children in our society. Sacks, Murphey, and Moore (2014) reported 46% of children in the U.S. experience at least one ACE (Adverse Childhood Experience). These traumatic events are defined as prolonged exposure of children to traumatic childhood experiences that have immediate and lifelong impacts (Felitti, et al., 1998). Sacks, Murphey, and Moore (2014) also reported economic hardship is the most common ACE reported nationally. Souers and Hall (2016) reported "nearly 35 million children experience at least one ACE, and every 10 seconds a report of child abuse is made in the U.S." (p. 19). Therefore, this research demonstrates that poverty and trauma can go hand-in-hand.

Not only is social class an indicator for advanced risk of trauma, but so is race. National data shows children of color live in poverty at a much higher rate than white children. Poverty rates for black children were 39%, American Indian, 36%, Latinx 33%, Pacific Islander 25%, and multiracial 22%, while white children in poverty was reported at only 13% (Carey, Yee, &

DeMatthews, 2018, p. 114). In a review of ACEs literature performed by Larkin, Shields, and Anda (2012), several groups of at-risk youth were defined, including male sexual abuse survivors, children of teenage parents, and black adolescents exposed to community violence as being high risk for ACE exposure (p. 268). Understanding that in communities where “food insecurity, domestic violence, unemployment, inadequate educational systems, crime, and social justice issues are common, ACEs abound, social supports are scarce, and toxic stress results” (Ellis & Dietz, 2017, p. 87). Therefore, it is clear that an area code can determine education success and overall health and life expectancy for an individual based on impacts related to poverty and racism.

The ACE study, reported by the Center of Disease Control (CDC) and performed in cooperation with Kaiser Permanente, reported a positive correlation exists between the number of childhood traumatic experiences a person has to health risks and diseases in adults (Felitti, et al., 1998). Persons with more than four experiences and in multiple categories, like poverty and domestic violence exposure, have a four to twelvefold increase of health risk factors in adulthood compared to individuals not experiencing traumatic events in childhood (Felitti et al., 1998). Crosby, Howell, and Thomas (2018) highlighted how without understanding the effects of trauma in children, educators can unintentionally make judgments about the students and their families. They may place blame on them as the reason for an educational struggle, but never look at school system practices to ensure the child is not being re-traumatized at school. Gaffney (2019) highlighted this thinking releases the educator from self-evaluating teaching practices regarding students in poverty who may be experiencing trauma. This allows the educator to remain oblivious to implicit bias that is perpetuating suboptimal educational experiences for these vulnerable students.

## **Internal Factors**

The harm caused by racism and classism not only affects a child's overall health and safety, but can also have an adverse effect on a student's overall education experience and performance. Therefore, an education system that is culturally insensitive and unresponsive to vulnerable student needs can be a source of additional trauma, and reproduce a system of repetitive failure for students experiencing racism and classism. Blodgett and Lanigan (2018) reported in looking at elementary age children and comparing ACE exposure to academic performance in school, reported greater rates of academic failure, attendance problems, and school behavioral problems as ACE exposure increases. The researchers also found a correlation between ACEs and poverty, finding ACE incidents were reported at a higher level in Title I schools, (schools identified for federal monies based on the number of students qualifying for free/reduced lunch programs/number of students in poverty) compared to schools who did not qualify based on poverty (Blodgett & Lanigan, 2018). In comparing ACEs with poverty level in primary school students, Goodman, Miller, and West-Olatunji (2012) concluded, "the percentage of students who have trauma decreases as student socioeconomic status increases" (p. 255) meaning the higher the poverty level, the higher the incidents of trauma.

Additionally, in following federal IDEA law (Individuals with Disabilities in Education Act), school districts are funded at a rate of 12.75% of student enrollment to provide children with disabilities, or identified as exceptional, with needed services to ensure a free and appropriate public education for all students. According to a national longitudinal survey conducted by the National Center for Education Statistics (NCES), students experiencing trauma were given an Individualized Education Plan (I.E.P.) at a rate "more than double that of their peers not experiencing trauma" (Goodman, Miller, & West-Olatunji, 2012, p. 256). Students

experiencing trauma are 50% more likely to be labeled with an educational disability than students without trauma. Additionally, schools are identifying African-American students with educational disabilities at a rate much higher than they are identifying white students, and African-American out-of-school suspension rates far surpass white rates (Crosby, Howell, & Thomas, 2018).

The figure below demonstrates the correlation between the number of ACEs experienced by students and struggles with school and health. Souers and Hall (2016) reported the more ACEs a student experienced, serious school and health issues increased. As noted below in Table 1, Souers and Hall gathered data that demonstrated students with increased ACE exposures struggle at school with attendance, behavior, coursework, and overall health. Struggling in any one of these areas can cause an academic struggle, but struggles in all listed areas drastically increase the likelihood of suboptimal educational performance based on ACE experiences. Therefore, any student experiencing ACEs is more likely to be identified as having an educational disability (Goodman, Miller, & West-Olatunji, 2012).

**Table 1. ACEs Correlation to Overall School & Health Struggles**

ACES	Attendance	Behavior	Coursework	Health
3+ ACES	4.9	6.1	2.9	3.9
2 ACES	2.6	4.3	2.5	2.4
1 ACE	2.2	2.4	1.5	2.3
No known ACE	1.0	1.0	1.0	1.0

*Note.* This table demonstrates the percentage increase of student struggle in the areas of attendance, behavior, coursework and overall health as ACE exposure increases. With each exposure, the percentage of increase of overall struggle in any one area is greatly multiplied (Souers & Hall, 2016, p. 21).

This data clearly shows a student with 3+ ACEs is 4.9 times more likely to have school attendance problems, 6.1 times more likely to have behavioral issues, 2.9 times more likely to struggle with coursework and 3.9 times more likely to have health problems than students

reporting no known ACEs. Additionally, students reporting only one ACE had increased likelihood of struggle in all areas, demonstrating any exposure to adverse childhood experiences has a significant impact on school performance. This data highlights the ineffectiveness of public schools in addressing issues related to students experiencing trauma.

Even the most well-meaning educator can contribute to the organizational breakdown of public schools for students of color and/or students living in poverty (Gaffney, 2019). hooks (2014) noted teacher implicit bias toward these vulnerable students based on their race and class can negatively affect their education. Although unintentional and unrecognized by the individual teacher or school system, students of color and/or living in poverty are regularly discriminated against in their education. Chambers (2009) reported students of color are often ability tracked into the low-performing group, which is predominantly made up of students of color. Furthermore, students of color often attend schools with the most resource disparities, lack access to pre-school preparation, and are not taught by high quality teachers. Similarly, Gorski (2008) noted common myths about people living in poverty, which include they have a weak work ethic, are unmotivated, and have no value of education. Gorski also noted the reality is parents work multiple jobs and are away from home for more hours during the week because of work requirements. Therefore, parents and those in poverty in general have a strong work ethic, are motivated, and do value education, but are limited in the time and energy they can devote to other things because work monopolizes more of their time than middle-class workers. However, because of deficit ideology, “buying into certain myths and stereotypes that inform educational philosophy and practice,” students and their families experiencing racism and classism are often viewed as flawed by educators (Gorski, 2011, p. 158).

## **National Teacher Demographics**

National data can be used to explain why educators are culturally unresponsive to their students, and have implicit bias that negatively influences student educational experiences. The National Center for Educational Statistics (2020) reported as of 2018, 76% of educators were female, and 79% of all educators were white. Additionally, with a median range salary reported at \$57,900, the American teaching force is predominantly made up of white, female, middle-class teachers. hooks (2014) highlighted teachers were unprepared to be culturally sensitive and responsive to students who experience classism and racism. This means these educators cannot personally relate to and do not understand children living in poverty on a personal level. Additionally, hooks (2014) noted teacher preparatory programs and professional learning opportunities in schools are not tailored toward educating teachers on issues of racism, classism, or teacher implicit bias. Teacher learning opportunities are geared more toward pedagogy and incorporating technology into instruction (NCES, 2017). Therefore, in classrooms across our nation, educational inequities continue to be reproduced.

## **The Theoretical Framework**

Crenshaw (1998) outlined the theory of intersectionality which illuminated how easily marginalized groups and individuals are overlooked when a lens to see their issues is not provided. One must understand the lens with which we are provided by society is a racialized, normative lens. Success and acceptance are determined by what is considered normal or preferred. Therefore, the lens with which we view appropriateness is white, male, able-bodied, heterosexual, and cis-gendered. When any one person has one characteristic from the dominant group that characteristic is easier to recognize, for example just race or just class. However, when an individual has multiple variations from the defined dominant group, seeing the layering

or intersectional effect of the oppression faced becomes more difficult, or even invisible. Seeing one area of need is easier than effectively dissecting multiple layers of possible bias an individual may be facing.

Within America's public schools, there exists insufficient organizational capacity to support students experiencing classism, racism, and childhood trauma resulting in suboptimal educational performance. Students of color, students experiencing poverty, and students at the intersection of both are more likely to experience teacher implicit bias. They are not just dealing with racial biases or just dealing with socioeconomic biases; both categories intersect with the student resulting in multiple biases. Therefore, this exponentially affects student experiences in school.

In addition to intersectionality, trauma caused from external factors (those outside the school) and internal factors (those inside the school) must be effectively understood and addressed by educators to prevent further traumatization of these vulnerable students within school walls. The theory of intersectionality helps create a lens through which to view this problem. Harris and Leonardo (2018) defined intersectionality as a "lens to help focus on groups or individuals who have more than one identity, or social label, that would allow them to remain invisible or marginalized without seeing the complexity of their intersubjective experience" (p. 5). Intersectionality, within the context of this research study, was used to look at students not just of color, just in poverty, or just experiencing childhood trauma. The lens of intersectionality allows researchers to see the complexity of the experience for a student at intersection of multiple social labels, like classism, racism, and experiencing childhood trauma combined.

Within the current system, the deficits-based approach looks at a struggling student and blames the student, never looking at the system as a possible cause of the struggle. Therefore, the



system (teachers, administrators, policy makers) never takes responsibility for those outside of the “norm,” which the system supports. Placing blame on students and families serves to reinforce the belief that the student and family are the source of the problem, not the system/school (Chambers, 2009; Gorski, 2011; Ladson-Billings, 2006; & Lareau, 1987). However, when we embrace trauma-informed practices, we are recognizing our role as a system/institution in creating trauma and/or not having empathy for or helping those who experience it.

In considering the possible intersections for students in our public-school classrooms, race and racial biases must be considered for each individual student, but not in isolation. Using the lens of critical race theory, structural, institutional, and governing systems can be examined for possible discriminatory practices. Delgado and Stefancic (2017) defined the difference between Critical Race Theory and traditional civil rights movements. Traditional civil rights focus on incremental and step-by-step processes in racism, like marches against poll taxes, sitting in restaurants to show discrimination, and refusing to stand on buses to highlight inequities. Whereas, Critical Race Theory, however, looks at “the very foundations of liberal order, and questions economic, political, and legal structures that reproduce racism” (p. 3). Within the context of public education, the lens of Critical Race Theory was added to the Theory of Intersectionality to look at practices and data of the educational system to see discrimination and bias that would remain invisible otherwise.

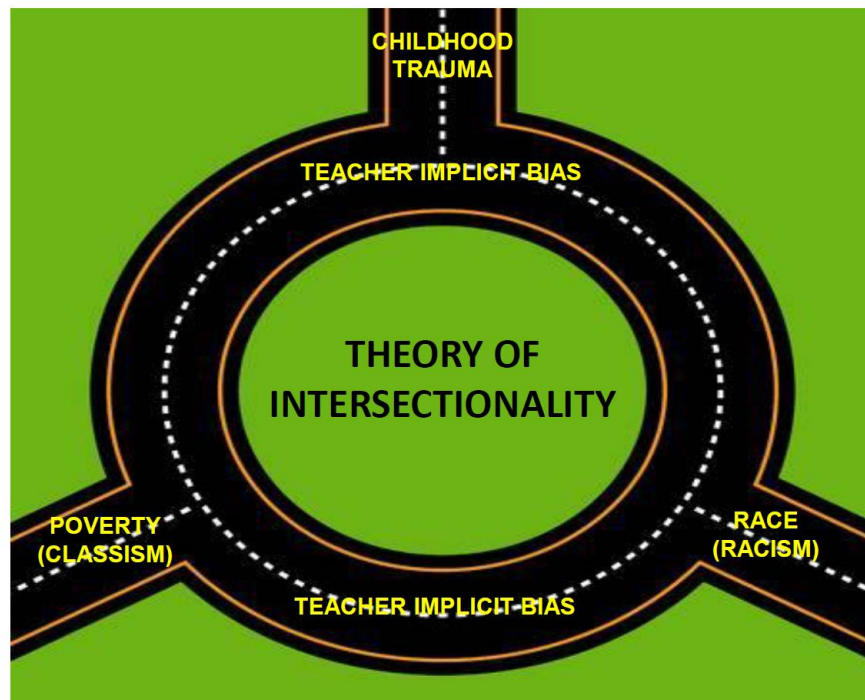
An abundance of national data demonstrates racial bias exists on a systematic level, and this is more detrimental to individuals and groups than the individual explicitly racist person is. In looking at the intersections of race, class, and the judicial system, data shows 14% of drug use in the nation was from the Black population and 64% from the white population, just African-

Americans are incarcerated for drug offenses at a rate of 10 times greater than that of whites despite similarity in charges (Lipsitz, 2018; Sensoy & DiAngelo, 2017). Additionally, illicit drug and alcohol use is higher among the wealthier class, but most drug arrests and prison sentences are given to those users from poor communities (Gorski, 2014).

In discussing race, indigenous groups of the American Indian population also experience higher levels of poverty than white Americans. As a subset of Critical Race Theory, Tribal Crit has emerged to help give a lens to view racism and classism experienced by these native groups. Brayboy (2005) highlighted how indigenous groups have experienced historic trauma because of colonization and governmental policies associated with the acquisition of land, and also rejects the call for assimilation of American Indian students. Tribal Crit supports the maintaining of a strong sense of individual indigenous identity as a distinctive source of pride (Brayboy, 2005). Bonilla-Silva (1997) noted although great variation exists among indigenous groups, all groups are collectively viewed as one race. Therefore, it is vital that schools with American Indian students go further with recognizing diversity than Native American History Month. To truly resist assimilation and convey a strong sense of pride in our American Indian students, the lens of Tribal Crit must be used in looking at culturally responsive curriculum and celebrating the uniqueness of the American Indian population in the area, highlighting differences with other Native American groups throughout the United States (Powell, Cantrell, Malo-Juvera, & Correll, 2016). Using intersectionality along with Tribal Crit allows educators to see the organizational insufficiencies that can discriminate against American Indian students with historic trauma. For the purposes of this research initiative, although Native Americans make up the largest minority population at Robbinsville ES, the focus will be on students finding themselves at the intersections of poverty, trauma, disabilities and out-of-class discipline inequities.

In thinking about intersectionality and the public-school classroom, Chambers (2019) highlighted students who struggle are too often categorized together, regardless of their many individual differences, as low performing. This makes it easier for educators to define that group, and to see those individual students as having the problem (Fenning & Jenkins, 2019). However, what is missed in this one label is the various other identities that could shed light on potential issues with the system as a whole (Bonilla-Silva, 1997; Bowels & Gintis, 2011; Carey, Yee, & DeMatthews, 2018; Chambers, 2009). Figure 1 below illustrates intersectionality and the multiple biases that can be placed on students of color, living in poverty, and experiencing childhood trauma. Contributing factors are both external societal factors and internal insufficient teacher capacity because of teacher implicit bias.

**Figure 1. Theory of Intersectionality**



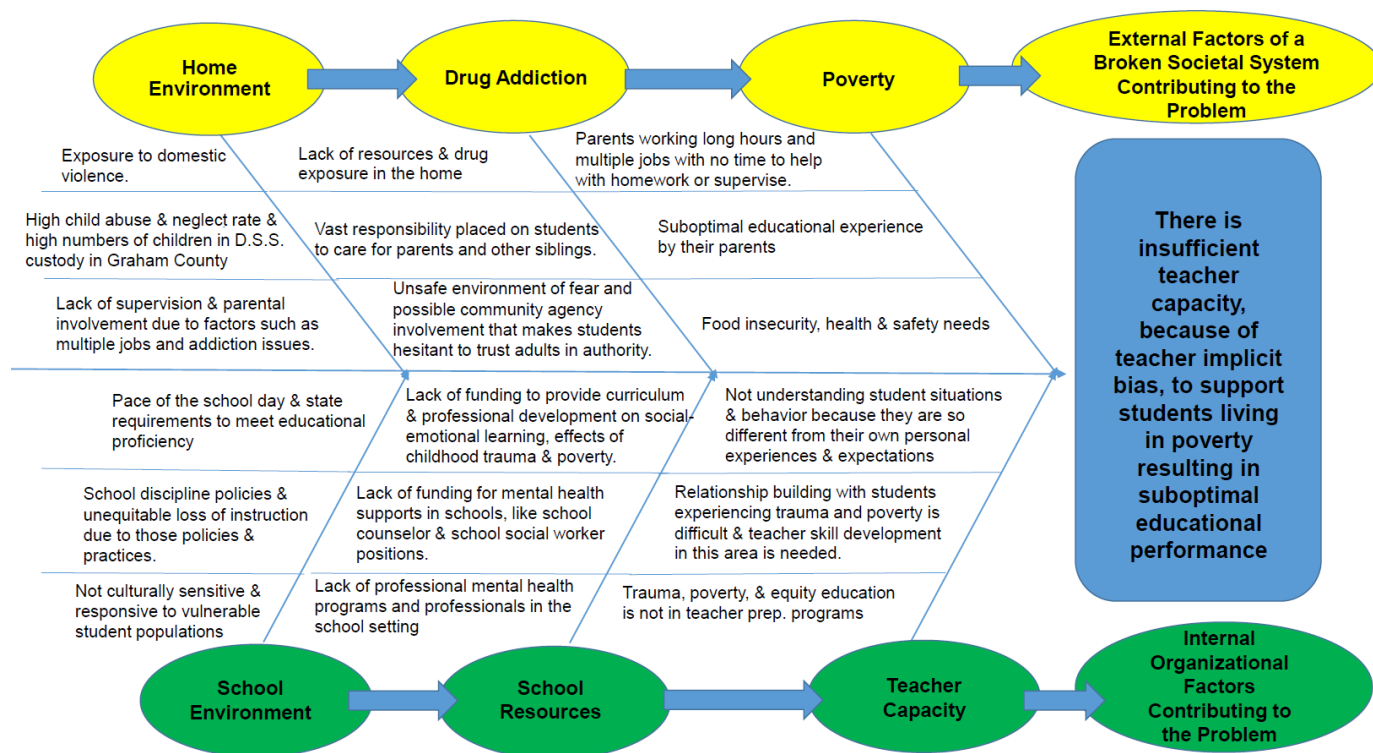
*Note.* This figure demonstrates that students with diversity from the white, middle class dominant group face teacher implicit bias that can negatively impact their educational experience and outcomes.

Students with race and class differences and those who have experienced childhood trauma have multiple differentials from their teacher. The more differentials a student has, the more likely they are to experience teacher implicit bias (Crenshaw, 1998).

### **A Causal Analysis of the Problem**

The complexity of the problem can be seen by using the lens of intersectionality. Applying the concepts of Critical Race Theory and Tribal Crit, taking an in-depth look at possible causes of suboptimal educational experiences for students of color, including indigenous students, living in poverty, and experiencing childhood trauma, clarity is given to the complexity of the problem and its causes. As noted in Figure 2 below, a fishbone diagram outlines possible causes linked to insufficient organizational capacity to support students with these intersecting social labels are outlined. The diagram highlights both external contributing factors that are the result of a broken societal system, as well as internal factors that are a result of an educational system that is biased to students experiencing racism and classism that could result in further trauma of vulnerable student populations.

**Figure 2. Fishbone Diagram**



**External Causal Factors**

External societal factors contributing to the problem of suboptimal educational experiences of students experiencing racism and classism outside of the school environment include home environment, drug addiction, and poverty. Students living in these environments clearly have a possible risk of exposure to childhood trauma that is greater than their white, middle-class peers. Too often, educators have been allowed to use deficit ideology about students living in poverty, students of color, and their families to justify student struggles. This deficit ideology projects students’ suboptimal performance onto the student and their family while taking no responsibility for the struggle themselves as the educator (Fenning & Jenkins, 2019). Ladson-Billings (2006) noted families of color are often excluded from being involved in educational decision-making regarding their children. This exclusion suggests educators do not

value the opinions of families living in poverty, and/or of color, while middle and upper-class families are highly involved in educational decision-making (Gorski, 2014).

Goodman, Miller, and West-Olatunji (2011) reported average reading and math scores for students experiencing trauma are significantly lower than students without trauma. If the school environment is a source of trauma because of a lack of cultural sensitivity and responsiveness, student educational outcomes will suffer (Powell, Cantrell, Malo-Juvera, & Correll, 2016). Therefore, the societal factors of racism and classism that exist outside of the school environment can still negatively affect students inside the school environment based on implicit bias of educators.

### **Internal Causal Factors**

Factors from within the educational system that result in insufficient organizational capacity to support students of color experiencing childhood trauma and poverty are the school environment itself, resource disparities, and a lack of teacher capacity in educating these vulnerable students. According to Bowles and Gintis (2011) the educational system produces rewards and labels of students that reinforces the fragmentation on which classism is based. Goodman, Miller, and West-Olantunji (2011) reported school absences are higher among students with trauma, as is low-ability tracking and student disengagement. Absenteeism, student disengagement, and unequitable student discipline are all factors within the school environment that foster a lack of educational opportunity for students of color and/or with class differentials.

Not only is the school environment causing potential harm to students based on race and class but the system of financial allocations to schools is also distributed along racial and class lines. Ladson-Billings (2006) noted schools with students of color or those located in poorer neighborhoods receive less funding in per-pupil allotments annually than white, middle- and

upper-class schools. Additionally, teacher quality is lower in schools with high poverty rates. Diamond (2013) noted in schools with “0-9% low-income students, only 5% of teachers were in the lowest teacher quality quartile, compared to schools with 90-100% low-income students, 84% of teachers were in the lowest quartile” (p. 101). Therefore, the poorest students from the poorest neighborhoods have less money and more low-quality teachers.

Access to resources can also affect the amount of teacher education and capacity building a district will have access to (Ladson-Billings, 2006). Additionally, teacher preparatory programs focus primarily on pedagogy, with little emphasis put on understanding diversity and being a culturally sensitive and responsive educator (Powell, Cantrell, Malo-Juvera, & Correll, 2016). This burden then falls on districts to provide training. If poorer schools receive less money, funding ongoing teacher development and education is difficult. Funds are often prioritized and spent in other areas, like curriculum and technology (NCES, 2017). In turn, this leaves educators with little capacity and support in effectively addressing issues of racism and classism in their classroom (Blitz, Yull, & Clauhs, 2020). This system of inequity opens the door to teacher implicit bias; although unintentional, it has a negative impact on student education. Fenning and Jenkins (2019) noted those who would not endorse outwardly racist beliefs are not immune to having implicit bias that is out of our conscious control. This bias can result in educators who are culturally insensitive and unresponsive to students living in poverty and of color. The system is reproducing educational hardships for students in these educational settings.

### **Problem of Practice Within the Local Context**

Graham County is a rural community located in the Appalachian Mountains of Western North Carolina. Due to the remote location of the community, as well as a lack of employment opportunities within the county, individuals often choose to live in Graham County due to having

been raised in the community, or relocate for the natural beauty and outdoor activities available in the area. As a result of the lack of employment opportunities and the rural nature of the community, Graham County has very little diversity among the population. The largest minority group is Native American. Graham County also has a high poverty rate that is historic for the area. In fact, Graham County Schools is the largest employer in the county currently employing 202 individuals (Graham County School System, 2020b).

In closely examining Graham County Schools, it is clear the school system is a picture of the community. Graham County has a population of 8,441 with 86.1% of the population reported as white, non-Hispanic (United States Census Bureau, 2019). Student demographics demonstrate minimal diversity with American Indians being the largest minority student group: 76.9% White, 15.6% American Indian/Alaskan Native, 3.4% Hispanic, < 1% Asian, < 1% African American, and < 1% Two or more ethnic groups. Graham County Schools is made up of three schools, one elementary school, one middle school, and one high school with a total district student enrollment of 1,194 students. Students qualifying for free/reduced lunch in the district is 60.97% (Graham County School System, 2020c).

Based on Road Map of Need (2013, 2019) data, poverty and possible exposure to trauma are consistent issues for Graham County since 2013. The poverty rate and families with Department of Social Services (DSS) involvement over the last 6 year period is an indicator that within this community the societal disparity of class is having an impact on children living in poverty within our system. See additional data from the 2013 and 2019 Road Map of Need in Appendix A and Appendix B, respectively.

The Road Map of Need (Public School Forum of North Carolina & the North Carolina Center for After School Programs, 2019) defined Graham County as a Tier III county, falling in



the third quartile, ranking 66 out of 100 counties, in areas of high need. The report shows Graham County ranking higher than state averages in teen pregnancy, child food insecurity, and child obesity. Most alarming, Graham County reports numbers of children in DSS custody at a rate 293% times higher than the North Carolina state average, and child abuse and neglect numbers reported for Graham County are 226% times higher than the state average. These statistics are a clear indicator that some students within the Graham County School system are experiencing childhood trauma at an alarming rate.

Graham County's economic indicators are also well below state averages. "Median household income is \$15,009 below the state average of \$52,757, with 28% of Graham County children reported to be living in poverty. Also, the unemployment rate is 6.80%, which is 2.3% higher than the state average" (Road Map of Need, 2019, p. 15). Therefore, it is necessary for any employee of Graham County Schools to understand the effects of poverty in order to understand some of our children and their families.

Historic data for Graham County clearly demonstrates that poverty is persistent within this community. According to the Road Map of Need (Public School Forum of North Carolina & the North Carolina Center for After School Programs, 2013), in the area of poverty/low socioeconomic status, Graham County "ranked 62 out of 100 counties with an unemployment rate of 12.10%, and children living in poverty reported at 35.40%, both much higher than the 2013 state average of 9.50% and 25.40% respectively. The number of Graham County children in DSS custody was 17.48 per 1000 and child abuse and neglect were reported at 22.78 per 1000, with 2013 state averages for DSS custody being 5.72 per 1000 and child abuse and neglect reporting at 10.96 per 1000" (Road Map of Need, 2013, p. 13). Clearly, our local educational system needs to effectively respond to this issue.

School data for Graham County Schools showed across all three schools, suboptimal educational experiences exist for some of our students. The North Carolina School Report Card (2019) showed all three schools received a letter grade score of C and met student growth expectations for the school year. Accountability data is as follows: In grades 3-8 in English-Language Arts, 57% of students were proficient, and in English II, 60% were proficient. In Mathematics, in grades 3-8, 53% were proficient, in Math I 55% were proficient, and in Math III 52% were proficient. Another trend that was evident from school report card data is across all tested subjects, Graham County School's students scored lower percentages than students did across the state in scoring a Level 5, which is the highest level of scoring. This means on average across all tested subject areas, only 55.4% of students are on grade-level proficient, scoring in the lowest quantiles of students in the state, while they are also behind in all tested subject areas in scoring in the Level 5 quantile, which is the highest quantile.

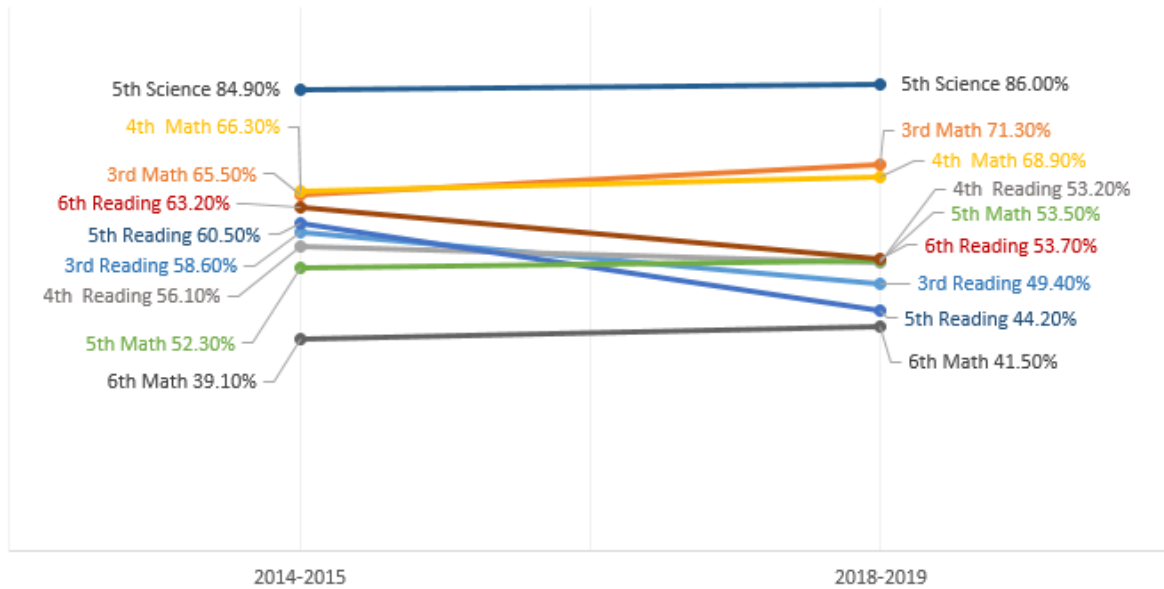
In reviewing past educational data for the district, it is evident that the trends of non-proficiency and lack of high performance are common. The North Carolina School Report Card (2014) showed all three schools having the same letter grade of C, with Robbinsville Elementary School and Robbinsville High School meeting growth measures for the year and Robbinsville Middle School not meeting growth. The data also reflected a lack of meeting state averages in scoring a Level 5, the highest performance quartile. While showing 46.3% of students scoring in the Level 1 and Level 2 categories of non-proficiency (the lowest performing quartiles) in all tested subject areas. See Graham County Schools testing data in Table 2 below.

**Table 2. EOG/EOC Testing Proficiency Percentages for Graham County School**

Grade	Subject	2014-15	2015-16	2016-17	2017-18	2018-19
3 <sup>rd</sup>	Reading	58.6%	63.6%	61.8%	58.3%	49.4%
3 <sup>rd</sup>	Math	65.5%	75.0%	80.9%	66.7%	71.3%
4 <sup>th</sup>	Reading	56.1%	60.7%	54.8%	58.0%	53.2%
4 <sup>th</sup>	Math	66.3%	54.8%	45.2%	51.1%	68.9%
5 <sup>th</sup>	Reading	60.5%	63.6%	59.0%	40.2%	44.2%
5 <sup>th</sup>	Math	52.3%	47.7%	33.7%	29.9%	53.5%
5 <sup>th</sup>	Science	84.9%	86.4%	69.9%	75.9%	86.0%
6 <sup>th</sup>	Reading	63.2%	66.3%	65.3%	59.1%	53.7%
6 <sup>th</sup>	Math	39.1%	60.5%	41.1%	40.9%	41.5%
7 <sup>th</sup>	Reading	57.8%	65.1%	65.3%	55.6%	58.3%
7 <sup>th</sup>	Math	41.2%	36.0%	54.1%	30.3%	44.0%
8 <sup>th</sup>	Reading	47.4%	54.1%	52.4%	52.1%	50.5%
8 <sup>th</sup>	Math	30.8%	44.9%	34.5%	51.0%	45.8%
8 <sup>th</sup>	Science	66.7%	72.4%	66.7%	69.8%	81.1%
9 <sup>th</sup>	Math I	32.4%	49.4%	63.3%	56.6%	54.9%
10 <sup>th</sup>	Biology	42.3%	55.9%	52.4%	63.6%	50.0%
10 <sup>th</sup>	English II	51.9%	61.0%	53.6%	56.7%	53.2%
10 <sup>th</sup>	Math III	NA	NA	NA	NA	52.0%

In analyzing the proficiency testing data for Robbinsville Elementary School (RES), which is a Pre-K through 6<sup>th</sup> grade school, from school year 2014-2015 to school year 2018-2019, EOG data in grades 3-6 showed very little improvement or change over time. While some tested areas showed a slight increase or decrease in proficiency over time, overall change is minimal. See the slope graph below in Figure 3 to note the EOG proficiency change over time.

**Figure 3. EOG Proficiency Rate Over Time from 2014-2015 to 2018-2019 School Year**



The lack of significant change over time in EOG proficiencies in reading and math in grades 3-6 demonstrated regardless of what new reading programs or math curriculum is adopted, or teacher professional learning that has occurred, very little real change in the educational experiences for Robbinsville Elementary students has resulted. This lack of change further demonstrates that until Graham County Schools offers professional learning for educators to address real issues of classism/poverty and childhood trauma that can result, impactful change is not likely. Teachers must understand their own implicit biases and deficit ideologies related to children living in poverty. Assisting educators in seeing these issues, of which they may be unaware, and giving tools to address them, can affect real change in educational experiences for Robbinsville ES students. Conversely, not addressing these underlying issues and biases will result in further stagnation/lack of real change in educational improvement for students.

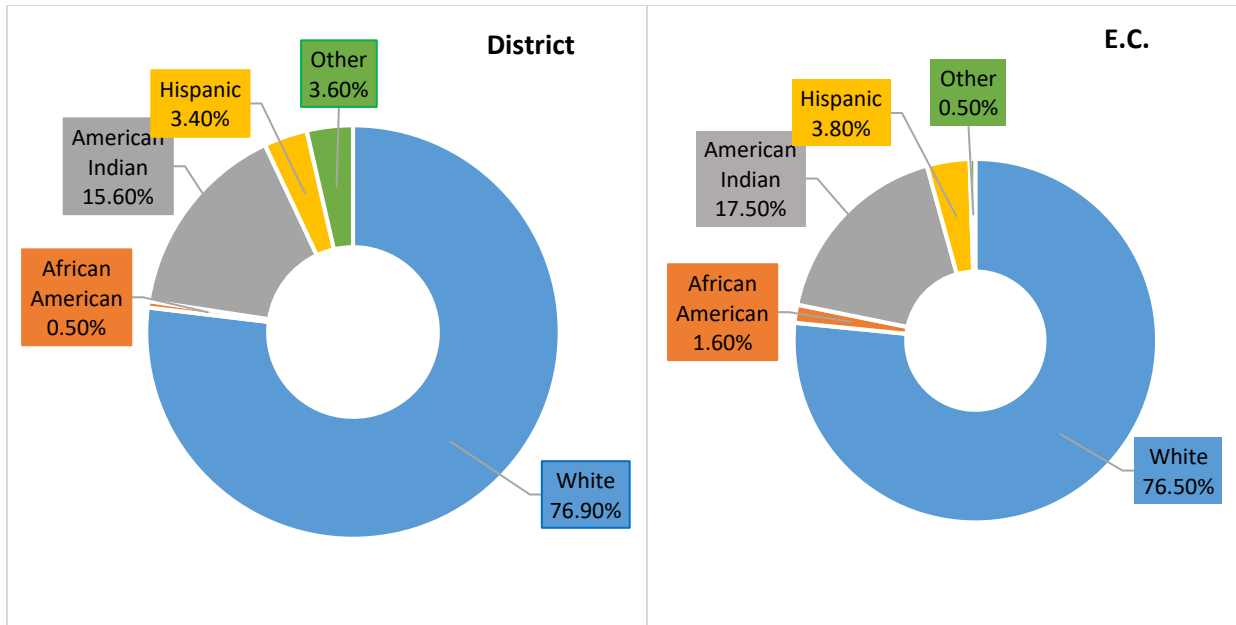
In an analysis of funding, the North Carolina School Report Card (2019) showed the use of funds for Graham County Schools is mainly prioritized in salaries and benefits, leaving very little for

professional capacity building for staff. Additionally, 85% of land in Graham County is owned by the U.S. Forest Service and the Tennessee Valley Authority. Therefore, the county has very little tax base leaving local contributions to the school budget small. A lack of funding to support initiatives to increase educator understanding of poverty/classism, along with the historic trauma associated with the largest minority group, students from the Eastern Band of the Cherokee Indian, has resulted in minimal educational progress being made for some of our most vulnerable students. Additionally, teachers continue to struggle with educating their students because they have never been presented with the educational opportunities to learn how to develop and maintain a culturally sensitive and responsive classroom. They have not been given the tools to see racism and classism, and identify how their own implicit bias can affect their interactions with students and student educational experiences.

In relation to students defined with educational disabilities who are referred to as exceptional children (E.C.) in Graham County Schools, current data demonstrates students are identified inequitably across areas of race and class. Most notably, white students are identified very closely to their overall school demographic numbers. With 76.9% of all GCS students reporting as white, similarly 76.5% of E.C. students are white. Numbers are also similar for Hispanic students. Hispanic students make up 3.4% of the GCS population and 3.8% of the E.C. population. Again, relatively similar. However, in looking at American Indian and African-American populations of students identified as having educational disabilities, numbers are more variant. American Indian students are the largest minority group in the school system making up 15.6% of the student population, but encompassing 17.5% of the E.C. population. Therefore, American Indian students are being over identified as having educational disabilities in GCS by almost 2%. More drastic variation is shown in the African-American student population.

African-American students only make up 0.5% of the entire population of GCS, but 1.6% of the E.C. population. African-American students in GCS, therefore, are identified as having an educational disability at a rate more than three times greater than their representation within the student population. See Figure 4 below.

**Figure 4. Student Demographics Comparing District Population to E.C. Based on Race**

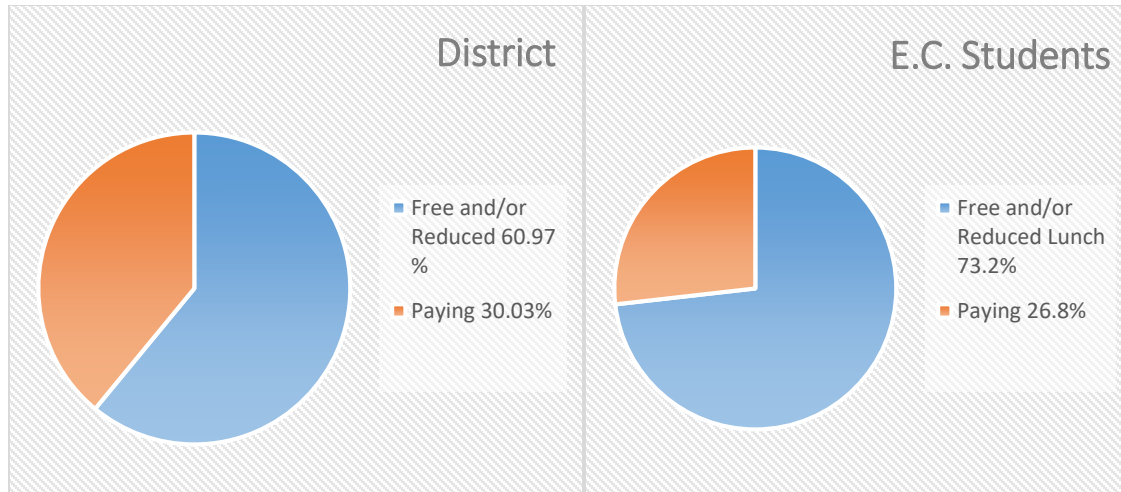


*Note.* Figure 4 demonstrates the over-identification of American Indian and African American students as having an educational disability within GCS.

An analysis of E.C. students and classism in Graham County Schools, show a drastic inequity between the number of all students in GCS who qualify for free and/or reduced lunch prices based on family income/poverty level, and the number of students identified with an educational disability that qualify for free and/or reduced lunch. As a district, GCS students qualify for free/reduced lunch prices at a rate of 60.97%. E.C. students, making up only 15.3% of the total population, qualify for free/reduced lunch prices at a rate of 73.2%, which is 12.3% higher than the district (Graham County Schools, 2020a). Although GCS has a high number of students qualifying for free/reduced lunch because of the high poverty level in our community,

students with educational disabilities qualify at an even higher rate than the already high district rate. The high number of students living in poverty in the E.C. program shows students are being over-identified as having an educational disability, when in fact they are being discriminated against based on their social class. See Figure 5 below.

**Figure 5. District & E.C. Free/Reduced Lunch Percentages**



In looking at district data in reference to race and class and comparing those guidelines to district E.C. data, it is clear students living in poverty and of color are being identified at a higher rate as having an educational disability than their white, middle-class peers in GCS. Additionally, schools are funded at a rate of 12.75% annually to provide children with disabilities, or identified as exceptional, with needed services to ensure a free and appropriate public education for all students (Individuals with Disabilities in Education Act of 1990). Graham County Schools E.C. rate is currently 15.3% (Graham County School System, 2020a). This demonstrates the district is over-identifying students with disabilities compared to the national average, and this over-identification is higher for students in the district who are living in poverty and/or Native American or Black. Clearly, racism and classism are playing a role

inside the school system and leading to inequity for Native American and Black students who are living in poverty.

In addition to over-identifying E.C. students along the lines of race and class, student out-of-class discipline referrals also demonstrate an inequity in student discipline. Robbinsville ES student discipline is based on a three-tier support system. Tier I student discipline occurs inside the classroom and is between the student and teacher. Tier I interventions are for the least disruptive, minor behavioral issues. Often times, but not always, parents are also informed of the discipline situation. However, resources outside of the classroom are not used and student instructional time is not affected.

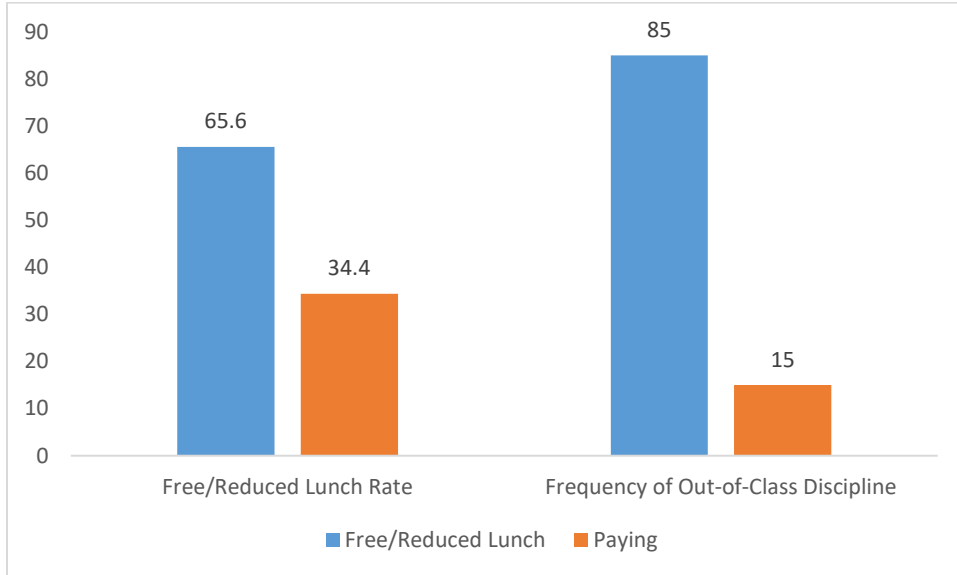
Tier II student discipline intervention occurs out-of-class in the Student Support Center. When students have persistent Tier I behaviors and are not being responsive to teacher intervention within the classroom or when behavior is slightly more intense, students are sent to the Student Support Center (SSC) to complete a Think Sheet. Depending on the student's grade and developmental level, they complete either a grade K-1 Think Sheet (Appendix C) or a grade 2-6 Think Sheet (Appendix D). Students work through their Think Sheet with school personnel, discussing the specific student behavior that resulted in being sent to the SSC, how it made them feel, how it made others feel, and what they could do differently next time. Parents are contacted with every Think Sheet a student completes to ensure they are aware of the student discipline issue at school. All Tier II interventions do require school resources outside of the classroom and do result in student removal from class and a loss of instruction time. Tier II behavioral interventions do not require an office referral or any additional student consequences beyond the completion of the Think Sheet and parent contact.



Tier III student discipline interventions result in an office discipline referral and are for extreme behaviors, such as fighting, arson, assault, etc., and/or consistent repetitive Tier II behaviors with the student not being responsive to the Think Sheet process and parent contact from the SSC. These discipline interventions require out-of-class resources and always result in a loss of instruction time. Tier III interventions also include additional punitive and/or natural consequences such as In-School-Suspension (I.S.S.), Out-of-School Suspension (O.S.S.), or After-School Detention (A.S.D.).

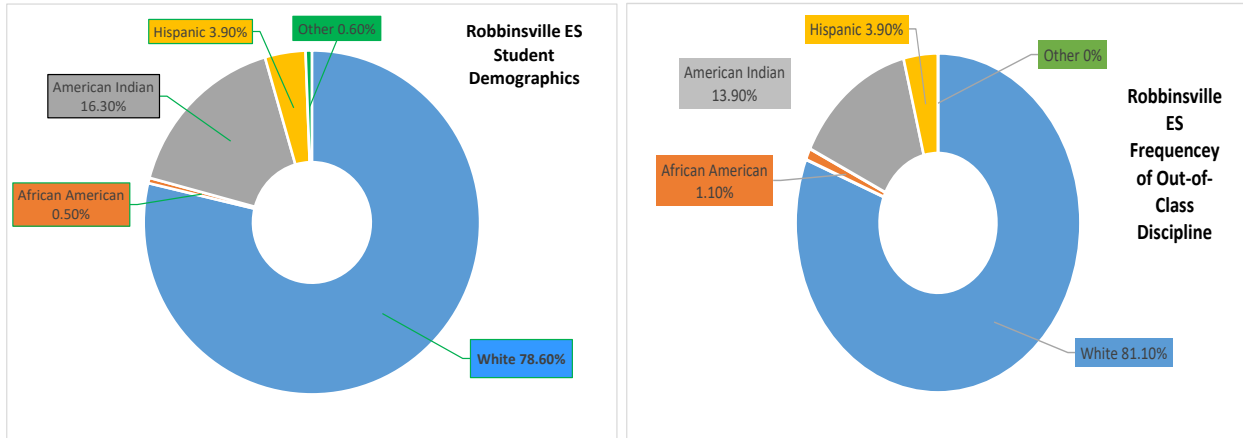
An analysis of all out-of-class student discipline referrals from August to December of 2019 indicate that students at Robbinsville ES are not receiving equitable out-of-class discipline, and the inequities are occurring along the lines of class. Analysis of 2019 discipline data was used instead of 2020 data to avoid any impact resulting from school closures due to the COVID-19 pandemic. School data is clear. In 2019, Robbinsville ES had a free and/or reduced lunch rate of 65.6% (Graham County School System, 2019). However, students who received out-of-class discipline and qualified for free and/or reduced lunch rate was 75.16%, meaning, students living in poverty and qualifying for free and/or reduced lunch were assigned out-of-class discipline at a rate 9.56% higher than their representation in the entire student population. Additionally, in looking at the total number of out-of-class discipline referrals, students qualifying for free and/or reduced lunch comprised 85% of all referrals given from August through December 2019, which is 19.4% higher than their representation in the student population. See the inequities in student discipline for students living in poverty in Figure 6 below.

**Figure 6. Robbinsville ES Out-of-Class Discipline Data in Relation to Poverty for 2019**



Out-of-class discipline at Robbinsville ES was disproportionate based on class in 2019. Similarly, a comparison of out-of-class discipline data and Robbinsville ES student racial demographics showed some inequity of student out-of-class discipline in relation to race (Graham County Schools, 2019). An analysis of the number of students receiving out-of-class discipline was very similar to the racial demographics of the student population. However, analysis of the frequency of out-of-class referrals compared to Robbinsville ES student racial demographic percentages was similar for all demographic groups except African American students. African American students make up only 0.6% of the school population, yet had an out-of-class discipline frequency of 1.10%, meaning African American students were sent for out-of-class discipline at a rate 2 times higher than their representation within the entire student population. Therefore, Robbinsville ES teachers are inequitably distributing out-of-class discipline along both classist and racial lines. See Figure 7 below.

**Figure 7. Robbinsville ES Out-of-Class Discipline Data in Relation to Race**



A lack of teacher capacity to understand the vulnerable student groups highlighted from this data, students living in poverty and students of color, results in inequities in student out-of-class discipline at Robbinsville ES. Professional learning must be offered to Robbinsville ES educators to highlight this inequity and the implicit biases in relation to poverty and race associated with it. Without which, this inequity will continue.

#### Historical & Current Initiatives to Address the Problem

In an attempt to assist teachers in addressing classroom issues related to poverty and trauma, Robbinsville ES implemented *The Leader in Me: The 7 Habits of Highly Effective People* to give teachers curriculum to teach skills that are desirable for students to possess for success. This program did allow teachers the opportunity to have meaningful conversations with students around prioritizing and thinking positively. However, nothing existed within the program to address issues of racism and poverty, nor trauma that could be associated with them. Therefore, teachers felt it was not adequate enough to really help them address student needs and build meaningful relationships.

The Leader In Me program, because of cost, was only implemented at Robbinsville ES. When students went to middle school, there was no continuity. At Robbinsville HS, a Peer

Helpers class is offered. This class allows students the opportunity to make their school more welcoming. For example, students in the class show new students around the school upon their enrollment, eat with new students at lunch so they don't eat alone, and participate in clothes and food drives to keep the food pantry and clothes closets throughout the district stocked. This class and its students do help students transition and feel welcome in the high school. It also gives students a feeling of responsibility for the greater good of their school community. However, there is no curriculum or lessons taught to the Peer Helpers about poverty or students with trauma. Consequently, this leaves the interventions that result from the class as surface level in making students feel welcome and trying to put them at ease, yet never addressing the causes or existence of the real underlying issues.

All school employees have been trained on Mental Health First Aid. Putting the training in the perspective of medical first aid, it is simply Cardiopulmonary Resuscitation (CPR) for students in crisis. This training provided faculty with strategies for approaching students they can see are struggling or in crisis/breakdown, and get them to the school counselor or other trained professionals for further help. However, the training gave no guidance on classroom strategies or organizational supports for teachers or administrators.

To provide mental health services at school, Graham County Schools collaborates with our local mental health agency, Appalachian Community Services to provide a Day Treatment Program on school grounds. A limited number of students receive great benefit from this mental health support. However, students must qualify for the program based on mental health need; parents must initiate contact with the agency and attend follow-up appointments outside of school, and unless students have Medicaid insurance, families must pay for the cost of the services. This poses several issues for families in Graham County. Parents must miss work to

attend appointments, and for families living in poverty, missing work is virtually impossible. Additionally, cost of service is out of reach of most families not qualifying for Medicaid. Therefore, this needed service is simply out of reach for some of our students who need it most, simply because of the financial requirement. Recognizing that mental health support is vital for our students, GCS has positions within the school that can assist any student during the school day. The district has three school counselors, one social worker, and one attendance social worker. The attendance social worker serves all three schools and primarily deals with attendance issues, providing home visits and support to families in danger of compulsory attendance law violation. Each of the three schools has one school counselor for their student population. For Robbinsville ES that is one school counselor for approximately 630 students, while Robbinsville MS has one counselor for approximately 180 students, and Robbinsville HS has one school counselor and one social worker for approximately 350 students (Graham County Schools, 2020b). Although these positions are vital for the district and these individuals are dedicated and hardworking, they are simply outnumbered. School budget constraints do not allow any further positions to be added to reduce the ratio of school counselors and social workers to the number of students they serve. As a result, teachers are a vital part of understanding and effectively helping students who are struggling during their school day. Having teachers prepared to address not only educational needs of students, but also social-emotional needs is crucial for district educational advancement.

Graham County Schools has a unique student population. The natural beauty and idyllic setting of Graham County actually masks some of the terrible problems faced in this rural community. The beautiful mountain views and artificially high real estate prices are great for those who can afford them, but such things are actually distracting from some of the real

problems of poverty and mental health. These factors present major hurdles for educators who have not had training in understanding racism, classism, and their own implicit bias. To move our community forward, GCS students must be successful in their education and prepared to become adult citizens who make valuable contributions. As a district, we must ensure the success of all of our students, regardless of experiences they have outside of our school walls. In order to do so, GCS must establish a culturally sensitive and responsive school environment.

### **Theory of Improvement**

My theory of improvement maintains the following: Building teacher capacity in understanding their own implicit bias by addressing classism in the school environment, and deficit ideology related to students and families living in poverty will increase educational experiences for students living in poverty. To change the historic trend for students who struggle academically, educators must increase their own efficacy in addressing classism and their own implicit bias. Graham County Schools, through this research study, provided professional learning opportunities for teachers that explore how classism, racism, and teacher implicit bias can affect student educational experiences, and presented educators with the critical components of a culturally sensitive and responsive classroom. Because this learning opportunity has not been offered to teachers in GCS in the past, educators were ill-prepared to address these issues within their classroom, and were unaware of their own implicit biases. The Driver Diagram in Figure 8 below illustrates how developing culturally sensitive and responsive classrooms can positively impact educational experiences for students living in poverty. For this improvement initiative, I focused on the two areas starred in the figure.

Figure 8. Driver Diagram for Proposed Change

## THE AIM

Increase educational outcomes for students experiencing classism/living in poverty.

## DRIVER DIAGRAM

### PRIMARY DRIVERS

### SECONDARY DRIVERS

### CHANGE IDEAS



## **Improvement Methodology & Design**

To accomplish the goal of improving educational experiences for students in poverty, key concepts of improvement science were used. Bryk et al. (2015) described improvement science as an action-research design that employs rapid tests of change to guide the development, revision, and fine-tuning of change initiatives within education. Langley et al. (2009) outlined three questions that were used to guide planning, teacher education, research collection; these were communicated clearly to participants throughout the process: What are we trying to accomplish? What change can we make that will result in an improvement? How will we know that a change is an improvement? Multiple cycles of the Plan, Do, Study, Act (PDSA) framework were carried out throughout this change initiative to collect data to answer those questions (p. 97). Bryk et al. (2015), also outlined a guiding framework to follow through the PDSA cycles to increase the likelihood of affecting change within the organization. These facets were addressed routinely throughout the initiative. They are as follows:

- Remember, make the work problem-centered and user-centered
- See the system that produces the current outcomes
- We cannot improve what we cannot measure

### **What are we trying to accomplish?**

The primary focus of this improvement initiative was to build teacher capacity in understanding their own implicit bias and classism in the school environment, and build capacity for educators to move from deficit to asset-based thinking in relation to students and families living in poverty. The ultimate outcome of this change initiative was to increase educational experiences for students living in poverty.



### **What change can we make that will result in an improvement?**

The change initiative implemented was a professional learning module for teachers addressing teacher implicit bias and classism in order to move from a deficit to an asset-based ideology. The module addressed the following five key areas:

- a) Define and understand implicit bias and privilege.
- b) Outline deficits versus assets-based ideology related to students living in poverty and the tenants of intersectionality related to students with more than one differential from the white, middle class dominant group.
- c) Increase understanding of the myths versus the reality of individuals living in poverty and how implicit biases related to poverty can negatively affect student experiences.
- d) Understand ACES, the impact they have on student experiences, and the importance of being trauma responsive.
- e) Highlight Research-based best classroom practices for students living in poverty and/or experiencing childhood trauma.

### **See the System that Produces the Current Experiences**

Although improving educational experiences for students living in poverty was the long-term goal, increasing teacher capacity to understand how students with multiple layers of need as a result of intersectionality and changing teacher beliefs and attitudes about students living in poverty was the primary goal to be measured by this research project. Guskey (2010) emphasized a change in teacher beliefs and attitudes is one of the critical components to truly impact and change teacher practice, along with classroom practices and student learning experiences. Throughout this module, local student data and community demographics, empirical research articles, scholarly literature, and relevant student examples were used to

support and increase teacher capacity in understanding classism, racism, trauma, and implicit bias.

To begin the initiative, the researcher established a design team to serve as future mentors and drivers of the change within the district. The design team members delivered the learning module in one-hour meetings either on teacher workdays or after school. The learning session meetings were virtual due to high numbers of COVID cases in the community and school. Since the researcher was also the principal of the school where the research project was implemented, other members of the design team delivered the learning module content in all learning sessions. This alleviated researcher influence on data collected. Members of the design team along with positions held and roles/responsibilities are as follows:

- Principal-Researcher and Administrator
- School Counselor-Mental Health Support
- Math Coach-Curriculum Support
- Literacy Coach-Curriculum Support
- Regular Education Teacher-Technology Support
- Special Education Teacher-Students with Disabilities Support
- Masters in School Administration students currently enrolled in a program focusing on leading for equity and social justice-Equity and Social Justice Support

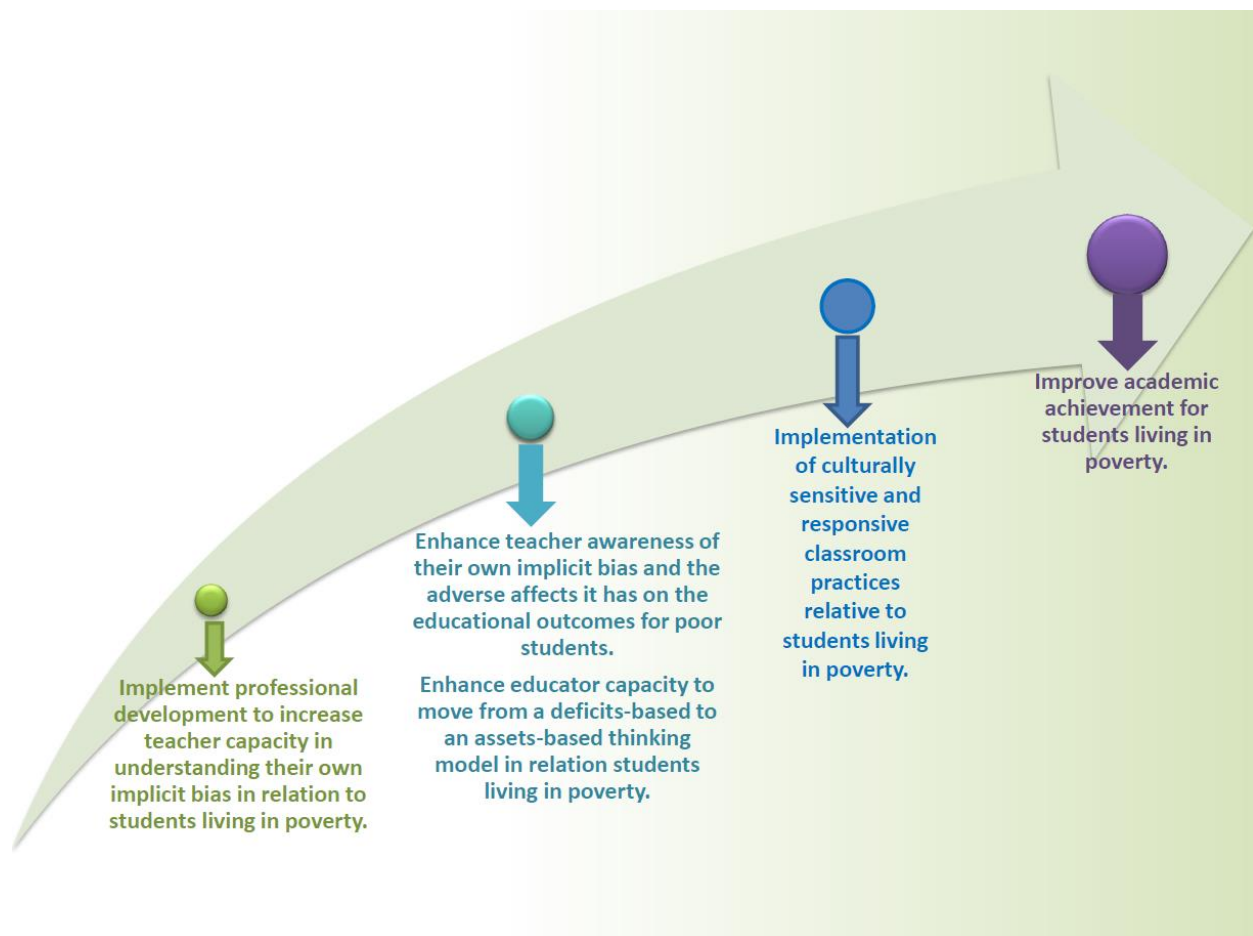
### **How will we know that a change is an improvement?**

In following the research guidelines established by improvement science, the design team continually assessed and collected data throughout the improvement initiative. We used outcome, driver, process, and balancing measures to collect and analyze a variety of data throughout the entirety of the improvement initiative. The team employed a mixed-methods

research approach, using both quantitative and qualitative data collection and analysis. The team analyzed data through each of the PDSA cycles used it to determine if immediate changes were needed to the module. Additionally, data analysis was conducted each time data was collected, which was after each learning session, and used to determine if the change made through the professional learning module was in fact an improvement by increasing teacher capacity in understanding implicit bias and classism.

For improvement to occur, one cannot work in isolation. Working collaboratively toward the common goal to improve academic achievement for students living in poverty required hard work and dedication. The design team took actionable steps to move educators toward a deeper understanding of their own implicit bias and away from deficit ideologies held about students and their families living in poverty. This increased understanding enhanced educator capacity to effectively address issues of poverty in their classrooms. Changing teachers' perspectives and increasing their capacity to be culturally responsive in their classrooms will ultimately increase the educational experiences of students living in poverty. Figure 9 below outlines the theory of improvement.

**Figure 9. Theory of Improvement**



As outlined above, the ultimate goal of this initiative was to improve academic achievement for students in poverty. To achieve this goal, implementing a professional learning opportunity for teachers to understand classism and implicit bias as it applies to students within the school environment was the starting point for how to achieve this goal. Educating teachers to see the system that results in suboptimal educational experiences for students and helping them understand how to address those in their classrooms was vital. Building the capacity of educators to change the lens with which they see students experiencing classism barriers can have tremendous impact on student educational experiences.

## **Research Literature to Support Improvement Initiative**

Historically, teacher-learning opportunities in Graham County Schools have focused on increasing student academic performance through research-based practices, using data to make educational decisions, and increasing teacher capacity to integrate technology into lesson delivery. Understanding teacher implicit bias, intersectionality, deficit ideology, the myths of poverty, and how ACEs associated with trauma have negative impacts on education have not been offered to Graham County educators as a professional learning opportunity prior to this research study. Research supports the benefits of having culturally sensitive and responsive educators on student experiences and overall education success.

### **The Importance of Looking at the System, Teacher Implicit Bias, and Privilege**

Trauma-sensitive and trauma-informed schools are becoming more prevalent. Educators are becoming more aware of the effects of trauma on the child brain and are being presented with practices to address these issues in the classroom. Craig (2015) asserted the effects of trauma on neurological development and the consequences these effects have on education for children, outlining practices for teacher and administrators in addressing these in the school environment. Focusing on practices alone and not looking at the larger system of school promotes deficit ideology. It allows educators to see the issue of trauma as a student problem, allowing educators to be released from responsibility for student failure.

Gaffney (2019) pointed out to make a true impact on educational experiences for students of color, living in poverty, and/or experiencing childhood trauma the school's starting point is to recognize and address the school's role in creating and recreating trauma. Simply focusing on student trauma and trying to address it without looking at the system of school will fall short. Teacher learning that highlights a deeper understanding of poverty and their own preconceived

notions, stereotypes, and deficit-mindsets about students coming from poverty is a necessary step in helping educators develop skills to build relationships, teach content and transform their mindset about poverty and how it displays in a school setting. Recognizing implicit bias and systemic policies and procedures that negatively affect students is a key component of teacher learning.

### **Learning How to Be Culturally Sensitive and Responsive**

In order to foster relationship building/attachment to the teacher, students exposed to systematic racism and classism need to see their learning space as calm and predictable. Craig (2016) gave specific examples of routines and practices teachers can use to make their classrooms be calm and predictable. Such practices include a routine posted on the wall, lowered lights and music, and purposeful movement throughout the lessons. Teacher capacity building in recognizing student behaviors associated with trauma allows teachers to not be caught up in emotion, react in anger, or feel personally victimized by student behavior because they understand it is because of trauma and not just misbehavior occurring out of defiance. This increases the teacher's likelihood of responding correctly, maintaining a positive relationship with the student, and reducing the possibility of re-traumatization. Additionally, by staying calm, the teacher reinforces to students they are neither frightened nor surprised by strong feelings and know what to do to bring those feelings back under control, maintaining control and calm in the classroom (Craig, 2016). To provide predictability for students, teachers can use established classroom routines that include "visual representations of the school day and design lesson plans that follow a standard format or sequence of steps" (Craig, 2016, p. 31). Finally, teachers can help students internally reflect and teach them how to use their minds to choose what to focus on, allow purposeful movement within the classroom, fidget toys, deep breathing, and stretching to

maintain focus and attention. This helps students achieve calm, maintain predictability, and begin to understand self-regulation, all of which fosters a trauma-sensitive classroom and increases student achievement (Craig, 2016).

Being culturally sensitive and responsive requires the educator to be self-aware when interacting with students. Souers and Hall (2016) highlighted as an educator, knowing your triggers, giving yourself space to breathe, pausing before responding, practicing empathetic listening, and establishing an environment where student strengths are recognized are keys to becoming culturally sensitive and responsive. Educators need to be shown these techniques and how to employ them in high-stress/high-emotion situations they face within the classroom. Responding correctly can be of great benefit to both the teacher and the student.

### **Making the Work Problem and User Centered**

Most importantly, for a professional learning opportunity for teachers to be successful and transferred into classroom practice, the teacher must be invested and feel the opportunity is needful. Van Duzor (2011) defined motivating factors for teachers in transferring professional training to classroom practices as experiencing professional development that “addresses learning needs specific to their students, teach skills, and deepen instruction in real-world problems” (p. 374). In addition, the team must ensure the needed professional development requires teachers to play an active role where teachers are recognized as professionals and where the PD is framed as teacher learning rather than teacher training (Van Duzor, 2011). Presenting national and local statistics about the prevalence of disparities based on race and class, demonstrated to educators the relevance and need for this professional learning. Understanding the direct connection to students in our school increased teacher buy-in and motivation to implement the proposed change ideas.

**Goal Narratives:**

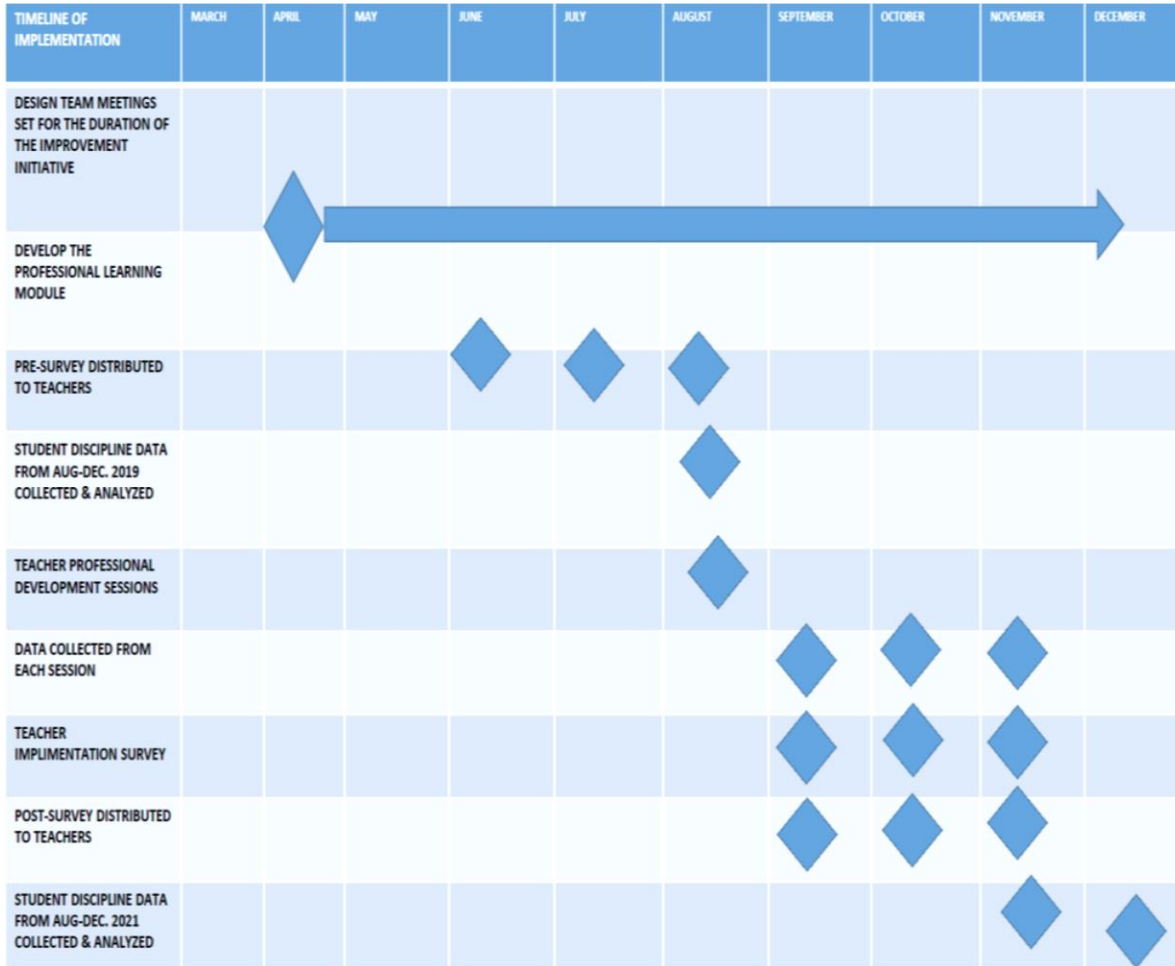
The long-term goals for this improvement initiative were as follows:

- 1) To increase educational experiences for students living in poverty.
- 2) To increase teacher capacity to develop and maintain culturally sensitive and responsive classroom environments where all students feel welcome, appreciated, and have trusting relationships with their teachers.

In order to meet these long-term goals, the team developed a specific timeline of action steps. See Figure 10 below for the proposed initiative timeline.



**Figure 10. Implementation Initiative Timeline**



**We Cannot Improve What We Cannot Measure**

In order to achieve these long-term goals, the design team developed short term milestone goals. Because understanding classism, and teacher implicit bias has never been addressed in any capacity for educators in Graham County Schools prior to this research study, the starting point was to build the capacity of understanding the overall effects of poverty and its prevalence in our community for the entire staff. Bringing this information to the forefront demonstrated the need

for deeper understanding for educators in how to build their own capacity to be effective within their classrooms. The researcher presented information, such as local and national statistics, and informational articles to design team members to increase their capacity to understand teacher implicit bias, the effects on students in Graham County Schools, and the need to provide this learning opportunity for teachers. Once the design team demonstrated increased capacity for understanding classism and teacher implicit bias, design team members helped construct the teacher learning module. Then, design team members presented the learning module to the entire staff of Robbinsville ES in four learning sessions. This format allowed teachers to have on-site coaching from the members of the design team. For the purposes of this research project and disquisition, data was collected and analyzed from the four learning sessions provided to teachers at Robbinsville Elementary School. However, the long-term goal of this project is for all educators in Graham County Schools to access the teacher learning module. Since all current Robbinsville Elementary staff have worked through the learning module and adjustments have been made based on participant feedback, the learning module will be presented to teachers at Robbinsville Middle and Robbinsville High School. Once all current staff has been trained and adjustments have been made throughout the process, the modules will be added to the Beginning-Teacher Professional Learning Community. This will ensure future employees of GCS have an understanding of classism, implicit bias and the benefits of an assets-based ideology on educational experiences for students living in poverty in GCS.

### **Measurable Goals**

Based on the four-session learning module offered to teachers at Robbinsville ES, the following goals were established and assessed through teacher input and data analysis:

- 1) Teachers, through pre and post survey data (Appendix E), will report an 80% increase in capacity in understanding poverty (classism) and teacher implicit bias within the school system by December 2021. Research analysis will yield a p value of  $<.05$  and demonstrate the change resulting from this research proposal is statistically significant.
- 2) Teacher survey data (Appendix E) will demonstrate a 20% increase in the implementation of culturally sensitive and responsive practices in all classrooms across all subject areas by December 2021.
- 3) Teacher survey data (Appendix G) will demonstrate a 10% increase in implementation of classroom practices that demonstrate an assets-based ideology when addressing their students by December 2021.
- 4) Student E.C. referrals will decrease by 10% for students living in poverty by December 2021.
- 5) Student discipline data will decrease by 10% for students living in poverty by December 2021.

### **Formative Evaluation of Improvement Methodology**

To formally evaluate this improvement initiative the design team employed a mixed-methods research approach. Creswell & Guetterman (2019) defined this method as using both quantitative and qualitative research methods to provide a better understanding of the research problem than one data form alone. The learning module was delivered in four sessions approximately every three weeks. Data was collected throughout the entirety of the project. One complete cycle of the module was completed during this research proposal. Also, data was collected and analyzed after each of the four sessions within the module. Participant feedback

was used to make changes from one learning session to the next. The following measures were used to answer the question, *is the change actually an improvement?*

### **Driver Measures**

The purpose of a driver measure is to regularly measure progress toward the primary driver of the improvement initiative (Langley et al., 2009). For the purposes of this improvement initiative we measured the effect of a teacher learning module on building capacity for educators to understand teacher implicit bias and the impacts it has on students living in poverty.

Therefore, pre-and post surveys measuring teacher beliefs and classroom practices associated with teacher implicit bias and assets-based ideology were collected and analyzed using a paired-samples t-test. The finalized pre and post survey instrument was developed using Qualtrics and included questions from Siwatu's (2007) Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) and the Culturally Responsive Teaching Outcome Expectancy Scale (CRTOE). The CRTSE internal validity for the 40-item measure was .96, as estimated by Cronbach's alpha, and CRTOE internal validity for the 26-item scale was .95, as estimated by Cronbach's alpha. These instruments were not used in their entirety, but select items were used only if they had a factor loading range greater than 0.5.

Additionally, select items from Blitz, Yull, & Clauhs (2020) Teaching Tolerance Toolkit were used. Questions from Principle 3: Move the Discipline Paradigm from "Punishment to Opportunities to Teach Desired Behaviors," and Principle 5: Know the Students and Continually Develop Cultural Responsiveness were selected.

Questions from the three above survey instruments were combined into a staff survey of twenty questions, taking no more than 10 minutes to complete. The survey provided information on teachers' perspectives of their own socioeconomic class, the socioeconomic class of most

students they teach, their beliefs, and their classroom practices. Upon completion of the four session teacher learning module, data was analyzed to compare responses prior to the learning module to beliefs and practices after being trained on the learning module. A five point Likert Scale was used for participant responses. For data analysis purposes, a paired-samples t-test was conducted using SPSS 26 Software. See Appendix E for the completed Teacher Beliefs & Classroom Practices Survey.

### **Balancing Measure**

The purpose of balancing measures are to ensure unintended outcomes are not resulting from the implementation of a change (Langley et al., 2009). For the purposes of this initiative, balancing measures were put in to place to analyze teacher ability to articulate and describe their learning. Using the following questions from the Reflective Impact Questionnaire (Appendix F), teachers were asked to describe aspects of the learning module that challenged their thinking and asked them to self-reflect and list new learning in each session: *(1) List three major ideas learned today and rank them in order of importance; and (2) What one thing challenged or changed your thinking or perspective?* This allowed the teacher to put the new information in their own words before leaving the learning session. Self-articulation assisted teachers in internalizing new information and assisted in transferring this learning into practice.

The researcher used Vivo coding to examine participant responses. Using participants' own words to capture their learning is very powerful (Miles et al., 2014). Additionally, frequency of responses was calculated along with the order in which participants ranked their new learning in order of importance/relevance. Analyzing frequency accounted for the most common participant acknowledgments of new learning as well as acknowledgments of common challenges to their thinking or perspective within the participant group. This opportunity for

articulation served as a way for the teacher to balance the new information with prior, possibly contradicting knowledge the participant may have held prior to the learning module.

### **Process Measures**

Process measures are designed to collect real-time feedback on the implementation initiative to ensure it is working as intended or to revise areas as needed before moving forward (Langley et al., 2009). Teacher attendance to sessions was taken and attendance rate to each learning session of teacher learning module was calculated. A threshold for change for teacher attendance was an attendance rate of 75% of staff. Therefore, 75% of staff had to attend or a make-up session would be scheduled. Also, attendance data was represented on a run chart.

A Reflective Impact Questionnaire was given to each participant at the end of each session. It contained open-ended questions that was used to inform future PDSA cycles within the learning module itself. On the Reflective Impact Questionnaire questions (3) *What mode of delivering content or structure of the learning session today did you like best, and (4) What mode of delivering content or structure of the learning session today should be changed to make the session better next time?* were analyzed to determine any needed changes. This allowed the design team to make changes to the module before presenting to other teacher groups, and prior to presenting the next session, making it a stronger learning experience as it moved forward.

The researcher used evaluative coding, and a change threshold of 25% was established. Therefore, if 25% of teacher participants noted the same needed change, the module was amended with the requested change for future sessions. Real-time interventions are key to successful improvement science action research (Bryk et al., 2015).

## **Summative Evaluation of Improvement Methodology**

### **Outcome Measures**

Outcome measures refer to understanding the aim of the entire change initiative and determining how to measure that change (Bryk et al., 2015). For the purpose of this project, increasing teacher understanding of implicit bias, classism, trauma and the impact it can have on student educational experiences is the ultimate goal. Therefore, measures were administered to determine increased teacher capacity due to exposure to the professional learning module.

The researcher analyzed student discipline data from August-December 2019 and compared to student discipline data from August-December 2021. August-December 2020 was not used as a result of school closures due to the Coronavirus Pandemic. The analysis of this data served to show the following:

- 1) If student discipline referrals overall declined, increased, or stayed approximately the same prior to and during the professional learning module.
- 2) If students in August-December 2019 who qualified for free/reduced lunch received more discipline measures that required being removed from class than their peers who did not qualify for free/reduced lunch.
- 3) If students in August-December 2021 who qualified for free/reduced lunch received more discipline measures that required being removed from class than their peers who did not qualify for free/reduced lunch.
- 4) If the number of student discipline referrals for students qualifying for free/reduced lunch increased, decreased, or stay approximately the same throughout the time teachers were participating in the professional learning module.

Descriptive statistics were used to analyze this data. Comparing out-of-class discipline data prior to and after exposure to the teacher learning module provided a look at school-wide data for student discipline for students who qualified for free/reduced lunch to the amount of out-of-class discipline given to students not qualifying for free/reduced lunch.

The researcher also analyzed student EC referral data from August-December 2020 and compared it to student EC referral data from August-December 2021. The analysis of this data was used to show the following:

- 5) If student EC referrals overall declined, increased, or stayed approximately the same during the professional learning module compared to 2020.
- 6) If the number of student EC referrals for students who qualified for free/reduced lunch increased, decreased, or stayed approximately the same throughout the time teachers were participating in the professional learning module compared to 2020.

Descriptive statistics were used to analyze this data. Students qualifying for EC and free/reduced lunch from August to December of 2020 were compared to student referrals from August to December of 2021.

Another outcome measure for this change initiative was a teacher survey measuring teacher interaction with students as a result of increased capacity in understanding teacher implicit bias and classism. The survey was developed in Qualtrics and given to participants between each session and after the final session. The survey assessed the frequency of participants utilizing the new information, the way they implemented the information, and if they didn't, why not? A Pareto Chart was used to display this data. The chart depicts factors significant to implementation or a lack of implementation of learning into classroom practice .Descriptive statistics were also used to record the frequency of responses to calculate which



strategies were being used by participants most often. This was used to show what aspects of the learning module participants felt most comfortable implementing early on, and how many participants were using the new information gained from the learning module. See Appendix G for the Teacher Implementation Survey.

Figure 11 outlines the Data Collection Plan. All measures, along with their frequency and a description of the types of data that were collected are listed below. The design team reviewed the data collection chart and changes and suggestions to sessions were made based on participant feedback.

**Figure 11. The Data Collection Plan**

IMPROVEMENT EFFORT	TYPE OF MEASURE	TYPE OF DATA COLLECTED	FREQUENCY/THRESHOLD FOR INTERVENTION MODIFICATION	ANALYSIS STRATEGY	RATIONALE
Increase teacher capacity in understanding teacher implicit bias and classism to increase educational outcomes for poor students.	Outcome  (Teacher beliefs & classroom practices, Student Discipline, Teacher Implementation)	Teacher Beliefs & Classroom Practices Survey	Before first session/After last session.	Paired Samples T-Test	Blitz, L. V., Yull D., & Claubs, M. (2020). Bringing sanctuary to school: Assessing school climate as a foundation for culturally responsive trauma-informed approaches for urban schools. <i>Urban Education</i> , 55(1), 95-124.  Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. <i>Teaching and teacher education</i> , 23(7), 1086-1101.
		Think Sheets & Office Referrals	Prior to Session 2019 Aug-Dec Data/After last session Dec. 2021	ANOVA	
		EC Student Referrals	Prior to Session 2020 Aug-Dec Data/After last session Dec. 2021	Descriptive Statistics	
		Teacher Implementation Survey	After each learning session (4 times total)	Pareto Chart	
	Process	Teacher Attendance	Each session (4 times total)/ less than 75% of teachers/Offer make-up session	Run Chart	Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). <i>Learning to improve: How America's schools can get better at getting better</i> . Harvard Education Press.
		Reflective Impact Questionnaire	Each session (4 times total)/25% of participants request the same change	In Vivo Coding Evaluative Coding	
	Balancing	Reflective Impact Questionnaire	Each session (4 times total)/25% of participants note the same information as important in their ranking and/or in challenging their thinking.	In Vivo Coding Evaluative Coding	Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provoost, L. P. (2009). <i>The improvement guide: a practical approach to enhancing organizational performance</i> . John Wiley & Sons.

## **Research Study Procedures**

### **Gaining Approval and Establishing Meeting Schedules**

Before beginning the research study, the researcher presented the proposal to a defense committee comprised of faculty members familiar with social justice and improvement science research, as well as the superintendent of the local school district in which the research study was conducted. Once permission to begin the study was obtained by both Western Carolina University and Graham County Schools, the design team worked to determine the best time to deliver the information to faculty and staff. The team determined the four-session professional learning module should be delivered to all faculty and staff of Robbinsville Elementary School during School Improvement Meetings that were already scheduled to occur bimonthly. All faculty and staff were required to attend the meetings as a part of the school improvement process; however, only certified faculty were invited to participate in the research study. Scheduling the four-session professional learning module as part of the required school improvement process served to not add another meeting to a teacher's schedule. The schedule also solidified faculty and staff would be gaining new learning on understanding teacher implicit bias and the effects it has on students living in poverty because the information was presented in meetings that were required regardless of involvement in the research study.

To ensure all faculty and staff were aware of the upcoming professional learning taking place in the school improvement meetings, email notifications were sent out well in advance of the first meeting. The email included dates of the required meetings so all faculty and staff had ample time to plan their attendance, and specific detail of what information would be covered in those meetings. Attendance in the learning module was required, but participation in the research study was voluntary and anonymous.

## **Recruitment and Attendance**

In addition to sending emails explaining the contents of the professional learning module, the principal used the beginning-of-year principal's meeting to appeal to faculty about the reason why the topics of teacher implicit bias and poverty were chosen as needed learning for educators at Robbinsville Elementary School. The researcher used her personal story of living in poverty and the role her teachers played in her overall success. Faculty and staff were given reasons why the research project was needful and how their participation in the research would be of great benefit to them professionally, as well as to the researcher in her pursuit of her Doctorate in Educational Leadership. The researcher also explained the voluntary consent form and how all participation would be voluntary and confidential, as responses given for data collection and analysis would never be connected back to individuals.

Because the researcher was the principal of the school and the evaluator of the faculty that would be asked to participate in the study, ensuring confidentiality during the research study was vital to maintaining validity and reliability of research results. To ascertain complete confidentiality, voluntary consent to participate in the research study was obtained outside the presence of the researcher, and all participants were assigned an anonymous identifier with which they used to submit all data. This ensured that at no time throughout the research project did the researcher know who was participating in the research study or how any individual faculty member was responding to surveys or questionnaire data collected throughout the project. Robbinsville ES had 36 possible faculty member participants in this study.

After recruitment efforts, 14 faculty, 38.89% of Robbinsville ES faculty, signed voluntary consent to participate in the research study. Although meeting dates were sent out prior to participants signing consent, reminder emails were sent out at least one week prior to the next

session meeting, and again one day prior. Additionally, an all-call intercom announcement was made approximately five minutes prior to the beginning of each session as a last-moment reminder to attend.

### **Data Collection**

One week prior to the first session, a member of the design team sent all participants who gave voluntary consent a Teacher Beliefs and Classroom Practices Pre-Survey. The survey was developed in Qualtrics and sent via an email link. Participants were asked to complete the survey before the first session. Similarly, immediately following completion of the fourth learning session, participants were sent an email link to the Teacher Beliefs and Classroom Practices Post-Survey from Qualtrics via an email link, and were asked to complete the survey within a week following the final session.

At the end of each of the four learning sessions, research study participants were asked to complete a Reflective Impact Questionnaire, which contained five questions and took approximately 10 minutes to complete. This form was turned in to the same design team member housing the consent forms. All learning sessions were delivered approximately three weeks apart. Approximately two weeks after each session, participants were emailed a Teacher Implementation Survey developed in Qualtrics via an email link and were asked to complete the four-question survey prior to participating in the next scheduled learning session. At no time was the principal/researcher aware of what faculty were turning in forms nor were forms or surveys ever turned in directly to the researcher. Participants were routinely reminded that their responses and participation in the survey were completely confidential and to always use the anonymous identifier assigned to them when giving feedback of any kind associated with the research study.

At the conclusion of the study, the researcher analyzed data and shared it with the design team and the district leadership team, including principals from other schools within the district, the assistant superintendent, and superintendent. The data was used to determine the overall effectiveness of the professional learning module for teachers. A review of the established measurable goals was conducted. These included 1) an increase in understanding poverty and teacher implicit bias; 2) implementation of culturally sensitive and responsive practices in classrooms; 3) an increase in assets-based ideology among teachers; and 4) a decline in referring students living in poverty for exceptional children services and out-of-class discipline. The long-term goal of this research project is to increase educational experiences for students living in poverty and/or experiencing childhood trauma. Although long-term data was not collected in this research project, future research and district data collection could be meaningful to the district due to the large percentage of students living in poverty. Additionally, the district leadership team agreed to the timeliness and feasibility of presenting the learning module to all schools in the district, and incorporating the module into the Beginning Teacher Cohort for all new teachers in the district. Therefore, moving forward, every educator in Graham County Schools will be trained to understand teacher implicit bias and the impact it can have on the educational experiences of students living in poverty.

### **Impact of COVID-19 on This Research Study**

As the design team began to plan for the four-session learning module during the Summer of 2021, the team discussed the need to have the capacity to deliver the learning modules both in-person and remotely due to a possible closure of school and/or the need to socially distance to keep down the likelihood of exposures and staff quarantines due to COVID-19. Graham County Schools District uses Google Suite as the district learning management

system. Therefore, the decision was made to have face-to-face learning modules as the first choice, but to have participants prepared to participate remotely using Google Meet if necessary.

The Graham County Board of Education voted in August to return to school as mask optional. School started for students on August 16, 2021, in the midst of community positive numbers spiking due to the Delta Variant of COVID-19. As a result, Graham County Schools had to return to completely remote instruction from August 30-September 10, 2021. The spike in positive cases and numbers of students and faculty in quarantine required the learning sessions for this research project to be delivered in a remote format via Google Meet.

Teacher recruitment for participation in the research project was happening as COVID-19 numbers were increasing in our community and school. Teachers felt a sense of uncertainty and anxiety about the new school year. A desire for normalcy was quickly fading as COVID-19 numbers continued to rise and remote instruction seemed inevitable. Out of 36 possible participants in the research project, 14 voluntarily consented to participate.

Schlemmer (2021) spoke with teachers across North Carolina and reported educators are covering uncovered classes due to staff shortages and a lack of substitutes, while being required to report to school earlier and stay later to watch students in classrooms to keep down student congregation. Gewertz (2021) also reported that since the beginning of the pandemic, educators report an on-going struggle to engage students remotely. Although working hard, they find the lost time with students has drastically impeded their academic progress when they do return to in-person learning, leaving the educator with a feeling of dismay. Kim, Oxley, and Asbury (2021) conducted a longitudinal study in the United Kingdom on teacher mental health and well-being and found that across all teacher groups, an overall decline occurred during the pandemic,

but primary classroom teachers and primary senior leadership team members/lead teachers showed the greatest decline.

Not only are educators feeling stress and anxiety from the COVID-19 pandemic, but parents are as well. Adams, Smith, Caccavale, and Bean (2021) reported 86% of parents of young children cited a change in children's daily schedule and routine as a source of stress and 67% noted demands related to their children's online education at home as a source of stress during the pandemic. Many teachers are parents also, and the COVID-19 pandemic requirements are compounded for an educator who is also a parent. These factors of stress, anxiety, and the unknown can impact recruitment, not only into education as a career, but also into a research project. As educators are already overwhelmed, participating in a research project could seem like one more thing to do. COVID-19 clearly can have an impact on recruitment in all areas of education.

#### **Four-Session Professional Learning Module on Teacher Implicit Bias and Students Living in Poverty Plan-Do-Study-Act Cycles and Data**

During this research study, four complete PDSA (Plan, Do, Study, Act) Cycles were completed and thorough explanations of each of those cycles are outlined in this section (Langley et al., 2009). For each learning session, there is an explanation of the planning and delivery of information, a statistical analysis of quantitative data, an analysis of qualitative data collected during each session cycle, and a descriptive analysis of how this data was used throughout the research project to make adjustments as necessary to subsequent sessions (Bryk, et al., 2015).

## **Design Team and Pre-Planning**

During the summer of 2021, the four-session professional learning module was developed by the researcher with input from the design team. The team was comprised of the following:

- Principal-Researcher and Administrator
- School Counselor-Mental Health Support
- Math Coach-Curriculum Support
- Literacy Coach-Curriculum Support
- Regular Education Teacher-Technology Support
- Special Education Teacher-Students with Disabilities Support
- Masters in School Administration students currently enrolled in a program focusing on leading for equity and social justice-Equity and Social Justice Support

The design team was designed to include multiple perspectives from within the school environment to ensure all voices were represented on the team and in the learning sessions as they were delivered to teachers (Theoharis & Brooks, 2012; Theoharis & Scanlan, 2020).

Because an element of teacher learning associated with this research project included addressing teacher bias and the impacts those biases have on student educational experiences, Graham County School employees participating in Masters in School Administration program that included a strong social justice and equity focus were vital in communicating those aspects into the learning module delivering the information to faculty.

The design team determined each session should be presented using a similar format from session-to-session, and the sessions should be presented as a teacher learning opportunity where the teacher is valued as a professional and the learning is directly connected to the needs of the students they teach in order to maximize carryover from teacher learning to professional



practice (Guskey, 2010; Van Duzor, 2011), Once the session presentations were developed, dates were set and sent out to faculty to confirm everyone had advanced notice to promote adequate attendance.

### **Session 1: Understanding the Why Plan-Do-Study-Act Cycle 1**

*Plan.* Prior to the first learning session, members of the design team met to discuss Session 1 to determine if any last-minute changes needed to be made to the content of the PowerPoint and what information team members wanted to present. It was determined the researcher would share the screen during the virtual meeting and progress through the PowerPoint presentation while various other members of the design team presented the information.

Upon review of Session 1, design team members collaboratively decided what slides and information of the presentation they would present individually. As a group, the team determined what key ideas needed to be discussed during the presentation. Because Session 1 was the first time the group would be presenting together for the research project, the team decided to do a virtual practice presentation one-day prior to the actual meeting with faculty to work out any last-minute technological issues or details for the upcoming presentation.

*Do.* One week prior to Session 1, research participants received an email link to the Teacher Beliefs and Classroom Practices Survey created in Qualtrics and were asked to have the survey completed prior to the Session 1 presentation. Due to COVID-19 rate increases in our school and community, the design team decided the session would be delivered virtually via Google Meet. Additionally, at the time of delivery of Session 1, Robbinsville ES was delivering 100% remote instruction to students due to the number of students and staff both positive and in quarantine. Providing a virtual meeting allowed faculty and staff in quarantine to have access to

the learning session. Members of the design team polled faculty and staff about when best to hold the virtual meeting. Most educators indicated a preference to hold the meeting during rather than after the scheduled school day. Because no students were in school for the day, but were 100% remote, and based on faculty input, the design team changed the meeting to during the school day.

The main objectives to be accomplished in Session 1 were to highlight for faculty at Robbinsville ES the number of students living in poverty and experiencing trauma and to increase understanding of how the lived experiences of the educators vary from the experiences of many of their students. This would reflect implicit bias related to students living in poverty and experiencing trauma can have negative impacts on student experiences. Statistical data from the Road Map of Need 2019 and 2020 was used to show Graham County poverty rates, child abuse and neglect rates, and significantly higher Department of Social Services custody rates above the state average. Analyzing this community data served to assist teachers in understanding that more students than they realized were impacted by poverty and trauma.

To demonstrate for faculty the presence of implicit bias throughout the district and the school related to poverty, the design team highlighted district level E.C. (Exceptional Children) data and Robbinsville ES student discipline data. District E.C. data showed an overidentification of students living in poverty as having an educational disability by 12.3% (Graham County Schools, 2019). Additionally, Robbinsville Elementary School Student Discipline Data shows that students living in poverty received out-of-class-discipline at a rate 9.56% higher than their proportional representation and a frequency rate of 19.40% higher than their middle and upper class peers. Meaning, students living in poverty received more school discipline and lost more instructional time overall than middle and upper class students (Graham County Schools, 2019).

Once presented with the data to prove implicit bias exists, the design team presented faculty with definitions for implicit bias and privilege and asked specific questions to help guide the conversations.

- What are some privileges you had as a child that many children you teach do not have?
- How did these advantages/privileges impact your education?
- Can these privileges be a barrier to your connection and understanding of students who do not have them?

At the end of the learning session, all individuals in attendance was confirmed and research participants were asked to complete the Reflective Impact Questionnaire and turn it in to a designated design team member by the following Monday. Participants were reminded to only use their unique identifier when giving feedback for the research study.

*Study.* Helping teachers understand why educators in Graham County need learning opportunities in poverty and trauma, defining implicit bias, and sharing district and school data that demonstrate the existence of implicit bias were the overall purposes of Learning Session 1. In vivo coding was used as first-round coding to analyze each question on the Reflective Impact Questionnaire to analyze teacher learning based on their individual responses. Saldaña (2016), defined in-vivo coding as “a word or short phrase from the actual language found in the qualitative data record” (p. 105). Once individual phrases/statements were analyzed, pattern coding was used for second-round coding. Miles, Huberman, and Saldaña (2014) noted pattern coding as taking “segments of data and organizing them into categories, themes or constructs” to enable patterns within the data to emerge (p. 86). Table 3 below outlines the patterns of participant responses from Session 1 to Question 1 on the Reflective Impact Questionnaire.

**Table 3. Three major ideas learned in order of importance.**

Themes	Responses (n=12)	Percentage
District Data on Poverty & Trauma	10	88.33%
Teacher Implicit Bias & Privilege	6	50.00%
Questioning Classroom Practices	4	33.33%

*District data on poverty and trauma.* The most common response given to major ideas learned referenced district statistics shared during Session 1 about the number of students who live in poverty in Graham County. Of the twelve participants that completed the form, 10 noted district data on poverty as one of their three items of important learning. Participant 5 acknowledged, “I knew poverty was bad in Graham County but I did not have a clue of the severity of it compared to the state numbers.” Participant 7 noted, “Students living in poverty do not have the same lens that we as educators do,” This demonstrates an increase in teacher understanding of the level of poverty of the students they teach, and how the educator, not living in poverty, has a lens (sees a situation) different from their student living in poverty. Developing this understanding between teachers and students is vital. Van Duzor (2011) highlighted teacher understanding that the learning to which they are exposed directly connects to the students they teacher is more likely to be accepted as valuable and meaningful. Having this realization can impact the way a teacher teaches, approaches classroom management, and builds and maintains individual student relationships.

*Teacher implicit bias and privilege.* A primary focus of Session 1 was to define implicit bias and to demonstrate to teachers how it is occurring in Graham County Schools. Understanding the bias is present even without a conscious knowledge of it was a key goal in Session 1. Out of 12 participants, 6 acknowledged their implicit bias and privilege as a source of new, important information. Having 50% of participants acknowledge their own implicit bias

after Session 1 notes an increase in understanding of their own thinking about students living in poverty prior to the learning session. Participant 2 stated, “Be aware of my own implicit bias.” Participant 12 noted, “Being aware of our own implicit bias and lens of privilege.” Sensory and DiAngelo (2017) outlined the difficulty of changing one’s perspective due to only “seeing” cultural frameworks based on their own socialization. This makes the unjust system hard to see from their white, middle class perspective. Having teachers acknowledge the need for a paradigm shift in thinking can have impacts on the educational experiences for the students to which that thinking is directed.

*Questioning classroom practices.* Having been presented with new information about the level of poverty in Graham County and presented with school data that clearly shows teacher implicit bias, 4 out of 12 participants questioned current classroom practices related to student discipline in their new and important information comments. Participant 5 stated, “We should be looking at our students individually and be careful to take in their personal situations before just sending them straight to student support or the office.” Participant 6 noted, “We need to take a hard look as to why our students act the way that they do.” For teacher learning to truly impact student learning, it must be transferred into classroom practice. Craig (2016) concluded when teachers are able to reframe negative student behaviors and see those behaviors as symptoms of stress and trauma rather than defiance and disrespect, educational experiences for students can be positively impacted. Having 33.33% of teachers questioning their classroom practices related to student discipline after Session 1 demonstrates teachers engaging in reflective practice, and reframing student behaviors as symptoms.

Table 4 below outlines the patterns of participant responses from Session 1 to Question 2 on the Reflective Impact Questionnaire.

**Table 4. *What one thing challenged or changed your thinking or perspective?***

Themes	Responses (n=12)	Percentage
Meeting Student Needs	5	41.66%
Teacher Implicit Bias & Privilege	4	33.33%
Addressing Student Behavior	3	25.00%

*Meeting student needs.* Teachers who participated in Session 1 noted the requirement to meet students needs at school as the topic that challenged their perspectives the most. Statistics presented in Session 1 demonstrated to educators the profound number of students in Graham County Schools living in poverty and/or experiencing childhood trauma. Faced with the data, teachers demonstrated in their responses a greater need to assist students with non-academic support. Teachers were challenged by what Gorsky (2018) described as barriers and inequities experienced by individuals living in poverty that must be overcome “against considerable odds” in order to thrive (p. 67). Participant 1 stated, “The need to allow students class time for various needs to be met (sleep, food, etc.) and thereby have better focus from them even if for a shorter time frame.” Participant 10 acknowledged the statistics as challenging their perspective by commenting “The Road Map of Need opened my eyes to the fact that these concerns are a greater percentage than I realized.” In acknowledging district data that demonstrates a need for improvement, Participant 14 noted, “How we could help students who have experienced trauma overcome their learning blocks and not be placed in E.C.” Teachers were challenged by our district data to reflect on how student needs should be addressed at school, even taking priority over academic time.

*Teacher implicit bias and privilege.* Teachers were asked guiding questions during Session 1 to think about their lived experiences compared to the lived experiences of their students. Those conversations allowed teachers to acknowledge they have differences from many of the students they teach, and this teacher-student differential can have negative impacts on students. Participant 3 noted, “How is the security of love, food, a home, etc., that I had growing up keeping me from being aware when students don’t have these privileges?” Participant 7 stated “Just thinking about a paradigm shift that needs to occur within me.” These responses indicate an acknowledgement of the need for change. hooks (1994) acknowledges the benefit of a holistic model of learning where all aspects of a child’s needs are addressed by the teacher during the school day to the degree possible is an environment that empowers and grows teachers as well as students.

*Addressing student behavior.* During the Session 1 presentation, references were made to district data showing a disproportionate representation of students in poverty receiving out-of-class discipline compared to middle and upper class peers at Robbinsville ES. Presenters also highlighted the importance of seeing negative behavior as a symptom of poverty and/or trauma, not just defiance or disrespect, calling teachers to be mindful of the possible root-causes of student behavior when addressing issues; and steering away from stereotyping students and their behaviors. Banaji and Greenwald (2016) outlined how stereotypical thinking defined as ‘mind bugs’ can lead to negative experiences for the individual being stereotyped, and even more alarming, the stereotyped individual is likely to believe and confirm the expected stereotyped behavior. Participant 8 demonstrated a connection between poverty, trauma, and student behavior by noting, “The large number of students within our school system that do not have a steady home life and this is part of the reason for behavior outbursts within the classroom on a

daily or weekly basis.” Participant 6 noted a need to consider root-causes of behavior by stating, “One thing that challenged me was to stop and think about why a student may be acting out and is consistently in trouble.” Considering root-causes and seeing behavior as symptoms can allow the teacher to react appropriately to inappropriate behavior, maintain the teacher-student relationship, and impact educational experiences for those students.

Approximately two weeks after each learning session, participants were given a Teacher Implementation Survey via Qualtrics. This four-question survey assessed if teachers implemented/used any of the knowledge from the first learning session with students. Based on survey results, 50% of teacher acknowledged using information from the learning session in their teaching practice, and 50% of participants responded they had not used any information from the session in their classroom with students.

Of the 50% who implemented strategies into their classroom, teachers reported the following implementation activities: Classroom discussions about differences among students and teachers related to home and childhood experiences, observing student behavior and analyzing why the behavior is occurring, class discussions about cultural contributions in history that represent the culture of students in the class, ensuring all students feel they have reached a goal for the day and feel success, having food and school supplies readily available in classrooms for students, and self reflection about personal implicit bias.

Of the 50% of participants who noted no implementation of new information from the learning session, the following reasons were given for a lack of implementation: 85.71% noted no opportunity to implement was presented and 14.29% acknowledged their lesson plans were already written. As to why, 85.71% of participants felt they had no opportunity to implement



learning from Session 1, it could be related to a feeling of uncertainty about addressing poverty and trauma in the classroom, or the existence of implicit bias that still remains where addressing the issues seem necessary because of a refusal to see the problem. Additionally, embracing change is hard. The 14.29% of teachers who already had their lesson plans written could be resistant to further change when the COVID-19 pandemic has required so much change for educators. Whatever the reasons, half of the research participants implemented change after learning Session 1 and half did not.

*Act.* The design team collected data to assess what was working and what might need to be changed throughout the improvement science process (Langley et al., 2009). To assess aspects of the learning module teachers found most useful, Question 3 on the Reflective Impact Questionnaire was analyzed after each session. Based on participant input, four out of twelve participants (33.33%) noted enjoying the online format. Therefore, the design team determined Session 2 would also be delivered online. Also, four out of twelve participants (33.33%) stated enjoying the comments of colleagues and presenters who shared personal experiences about students related to the topics discussed in Session 1. In planning for Session 2, the design team decided to purposefully allow time for personal sharing during the session. Two out of twelve participants (16.66%) also noted enjoying having multiple presenters and mentioned the usefulness of the charts and visuals contained within the presentation. The design team determined a need to have engaging and useful visuals included in Session 2, along with a decision to continue to share the presentation among multiple members of the team for the next session.

Important to improvement science is to also ensure participants can communicate throughout the research project what needs to be improved and make those adjustments immediately to maximize participant learning throughout the module (Bryk, Gomez, Grunow, & LeMahieu, 2015). To assess aspects of the learning module teachers believed should be changed to make the learning experience better, Question 4 on the Reflective Impact Questionnaire was analyzed after each session. An analysis of participant responses showed five out of twelve (41.66%) saw no need for change. Since two out of twelve participants (16.66%) expressed a desire to have the second session in person, the team decided to wait until two days before Session 2 to determine if the learning would be delivered in-person or online. The rise in COVID-19 cases in our school and community required all learning sessions to be delivered online. Two out of twelve participants (16.66%) requested breakout rooms during the sessions for sharing personal experiences. The team discussed breakout rooms, but decided against the idea since more participants noted hearing the personal contributions of others as a positive aspect of Session 1. Breakout rooms could take away from everyone hearing those personal stories. Also, since one out of the twelve participants (8.33%) expressed a need to have more explanation of visuals, the design team noted to explain in greater detail any charts or visuals containing statistics and mathematics to ensure clarity for all participants in future sessions.

### **Session 2: Assets-Based Thinking Plan-Do-Study-Act**

*Plan.* Prior to Session 2, the design team met to review the PowerPoint Presentation and decide if any last-minute changes needed to be made. The team discussed participant input from Session 1 and ensured participant likes and suggestions were considered. It was determined that multiple presenters would deliver module content, any graphics would be explained in detail, and personal stories and experiences would be included in the presentation as they naturally fit,

giving participants ample opportunity to share their experiences and insights. Additionally, due to recent increases in COVID-19 cases, the design team determined all learning sessions would be delivered remotely for faculty safety and to reduce the likelihood of quarantine.

Based on informal conversations with faculty, participants reiterated a desire to have the learning session during, as opposed to after the school day. The design team discussed the possibility of moving the meeting time for Session 2 to a scheduled teacher workday.

*Do.* The main objectives covered in Session 2 were national educational trends for students living in poverty, defining and understanding the teacher-student differential, understanding intersectionality and the educational impacts for students with more than one differential from the white, middle class norm, recognizing deficits versus assets-based thinking, and how educator thinking effects both the educator and the student.

As faculty was presented with the new information, guiding questions were asked to assist them in understanding new concepts like intersectionality and recognizing deficits versus assets-based thinking when it is occurring. In relation to understanding the theory of intersectionality and how it relates to students, participants were asked to discuss the following questions:

Think of your students. Name some differences they have from you personally that could be a barrier to relationship building.

How do you think about these students? Is it dread? Is it sympathy? Is it dismay?

How can this thinking affect student educational experiences?

To assist participants in conversations about deficit-based versus assets-based thinking, several questions were posed to guide the conversation and participants were pushed to be honest

without fear, knowing everyone has fallen victim to deficits-based thinking. The questions that guided the conversation are as follows:

What are your personal student triggers?

What deficits do you find yourself focusing on most often?

What impacts does that thinking have on you as the teacher & the student you are thinking about?

How could those deficits be reframed into assets-based thinking?

Think of a challenging student.

What are their assets?

Have you specifically pointed out their assets to them so they are aware of your specific praise?

Have you ever had a very difficult student that once you learned “their story” your entire attitude and approach with that student changed?

If yes, share your story.

What changed? Was it you or the student?

What was the result?

At the end of the learning session, research participants were asked to complete the Reflective Impact Questionnaire and to turn it in to a member of the design team by the end of the next school day. Participants were also reminded to be ready for an email approximately two weeks after Session 2 containing the link to The Teacher Implementation Survey in Qualtrics that must be completed prior to Session 3.

*Study.* Helping teachers understand the impact of deficit versus assets-based thinking on student experiences, and understanding intersectionality and the teacher-student differential were

key points outlined in Session 2. In vivo coding and pattern coding were used to analyze each question on the Reflective Impact Questionnaire. Table 5 below outlines the patterns of participant responses from Session 2 to Question 1 on the Reflective Impact Questionnaire.

**Table 5. Three major ideas learned in order of importance.**

Themes	Responses (n=14)	Percentage
Assets v. Deficit-Based Thinking	10	71.43%
National Data Trends	8	57.14%
Getting to Know Students	7	50.00%
Understanding Intersectionality	2	14.29%

*Assets versus deficits-based thinking.* Research participants noted assets versus deficits based thinking most frequently in response to important information learned from the session. Responses outlined the outcomes of assets versus deficits-based thinking and the impacts educator thinking has on student experiences. Participant 1 noted, “Focus on and point out positive behaviors to reinforce expectations in your class.” Participant 3 highlighted how assets-based thinking can impact students beyond the classroom stating, “Focusing on students’ assets rather than deficits makes a huge difference in school and in life performance.” As Gorski (2011) noted, deficit thinking towards students can affect the way students think of themselves. Participant 8 highlighted, “Students pick up on how teachers feel about them.” Participant 6 notes the opposite is also true by stating, “Fill your students with positive and kind words and they will believe you.” With 71.43% of participants noting the importance of assets versus deficits-based thinking as important information, more educators at Robbinsville ES should be able to now promote assets-based thinking and spot deficit-based ideology to keep it from impacting students as often within our school building.

*National data trends.* Session 2 highlighted national trends related to poverty and trauma. The goal was to demonstrate to participants we are addressing a nation-wide, systemic issue not just unique to our school. Reports indicate child abuse is reported in the U.S. every 10 seconds, 35 million children in the U.S. report at least one ACE in childhood, and that 84% of the nations lowest performing teachers teach in schools with student poverty rates of 80-90% (Blodgett & Lanigan, 2018; Ladson-Billings, 2007; Sacks, Murphey, & Moore, 2014). Participant 8 connected these statistics to classroom instruction by stating, “Because of inequities, we see a trend of lost instruction.” While Participant 10 noted that locally, “We have gaps in our community that we can’t fix, but we can give support to the students.” Increasing teacher capacity to understand trends in poverty and trauma can assist them in seeing the need for student support and understanding, therefore, improving educational experiences for students needing the extra support.

*Getting to know students.* Throughout the training session, presenters reiterated the need to understand students and to know the whole child. Building positive teacher-student relationships and having the student feel connected and valued at school was a dominant theme throughout the presentation. Multiple participants noted the need to learn about students’ family and background as important. Participant 5 recognized personal life experience may be a barrier to building relationships if the educator is not aware by noting, “Being careful to relate to our students even though we may come from very different backgrounds.” Participant 6 acknowledged that the barrier to relationship building is time but reiterated, “Take the time to get to know your students and their background.” Participant 14 demonstrated a danger or barrier for a student showing concern about, “Differences we may make when we know a child’s circumstances versus not knowing.” Having educators invested in understanding their student’s

entire story can be very powerful in securing a strong teacher-student relationship and ensuring students feel wanted and have a strong connection to school (Siwatu, 2007).

*Understanding intersectionality.* During Session 2, information was shared about Crenshaw’s Theory of Intersectionality. Crenshaw (1989) outlined that individuals with more than one variation from the norm can suffer more discrimination. Similarly, the teacher-student differential was discussed to help teachers understand that students that had even one difference, but certainly multiple differences from a teacher had barriers to relationship building. Participant 10 described an understanding of this concept by stating, “The difference between teachers and students can create a barrier that you can’t help.” Participant 3 reiterated, “Being in the middle can create barriers to connecting with students living in poverty or wealth.” Gaining an understanding of an individual’s perspective and realizing it is different from others can be powerful in overcoming barriers and allowing powerful relationships to be built regardless.

To further assess participant learning, understanding information that was found challenging to individual perspectives or individual thinking is important to the process of improvement. Information that one finds challenging to a current, possibly long-held perspective, is necessary for implicit biases to be exposed. Table 6 below outlines the patterns of participant responses from Session 2 to Question 2 on the Reflective Impact Questionnaire.

**Table 6. *What one thing challenged or changed your thinking or perspective?***

Themes	Responses (n=14)	Percentage
Assets-Based Thinking	5	35.71%
Understanding Intersectionality	4	28.57%
Understanding the Teacher-Student Differential	3	21.43%
Getting to Know Students	2	14.29%

*Assets-based thinking.* Based on their responses to new information that challenged their thinking or perspective, participants noting assets-based thinking referenced being challenged by the impact teacher thinking has on student experiences and self-worth. Participants also acknowledged personal challenges to maintain an assets based approach when situations throughout the school year arise that are challenging. Participant 10 stated, “I feel more challenged to look for the students assets. I start out trying to do that, but the distractions of disruptive behavior sometimes cause me to lose focus.” Participant 12 noted a revelation in self-reflection by acknowledging, “I thought I was more assets-based in my thinking until the examples (in the presentation) were given and I’ve said or felt the statements given as examples in deficit-thinking.” Participant 2 linked deficit-thinking as more challenging due to the COVID-19 pandemic by highlighting a need to “Focus on the positives, not the deficits challenges my thinking because COVID and remote learning has left us with so many deficits.” Gewertz (2021) confirmed feelings of teacher despair in students’ lack of progress and low-engagement in remote learning. Consequently, assets-based thinking among educators is now more difficult than before. The timeliness of this professional learning session reiterating to teachers the impacts of assets versus deficits-based thinking on student experiences was necessary to emphasize the importance of refocusing on student assets regardless of student circumstances, behavior, or current academic performance.

*Understanding intersectionality.* Teachers know the students they struggle to connect with or those who seemingly have no feeling of connection to school. Being presented with the tenants of Crenshaw’s Theory of Intersectionality (1989), educators are challenged to see disparities of individuals that have remained hidden to them because of the multiple layers or intersections any one student may have from the white, middle-class norm. Participant 9 noted



this challenge by stating, “Intersectionality challenged me to be aware of what each child is dealing with and how it affects how I view them.” Participant 3 connected intersectionality to the ability to foster student relationships. “I think the barriers beyond our control (race, socioeconomic, class, etc.) potentially could affect relationships with students is huge, and has me thinking of how to overcome those obstacles.” Having educators see obstacles students face that have otherwise gone unnoticed can have positive impacts on a student’s experience at school who possesses these multiple layers of need. Additionally, participants connected intersections/barriers for students based on community and national data presented. Participant 6 identified trauma as a barrier many students in our school face. “I didn’t realize that our county had such a high rate of child abuse.” Likewise Participant 8 deduced the intersections of COVID-19 and poverty by stating, “Due to COVID, there has been a big percentage of child hardship within our schools as well as our county. Just within our county, data regarding poverty has been very alarming.” When educators begin to recognize student intersections/barriers, they can work to overcome/mitigate those barriers and improve the overall educational impact for students experiencing those hardships that would otherwise go unnoticed.

*Understanding the teacher-student differential.* In conjunction with understanding intersectionality, as part of the learning session, teachers were presented information and data to help them understand their positionality as white, middle-class and predominately female. One must understand their own positionality before they can see the struggles of those outside the norm and begin to design culturally informed classrooms to ensure equitable educational access to all students (Harris & Leonardo, 2018; Theoharis & Brooks, 2012; Theoharis, & Scanlan, 2020). During the presentation, statistics were presented to illustrate that students who were similar to their teachers had better experiences than students with differences, whether those

differences were race, socioeconomic status, trauma, etc. Participant 7 noted a statistic presented during the presentation as challenging. “Black students who had 2 black teachers are 32% more likely to graduate from high school and enroll in college than black students who do not have black teachers.” Participant 4 noted an awareness of their personal positionality and how it can vary from the students they teach by stating, “To remember to always be ready to listen. Don’t forget everyone does not have the same background as you.” Being aware of one’s position and how it is different from students entering the classroom can serve to break down barriers between the teacher and their student.

*Getting to know students.* Understanding intersectionality and one’s own positionality can begin to change one’s perspective and awareness of barriers that would have gone unseen otherwise. Participant 11 acknowledged, “If you have a student who is misbehaving there is usually a reason why.” Participant 5 outlined a personal challenge, “To ensure as an educator, I’m not always looking at just the behavior, but looking beyond the behavior to see what the real problem really is.” Seeing student behaviors as a symptom of a problem and not just as a disruption to a class lesson can allow the educator to respond in an appropriate way that maintains the respect of the student and solidifies the teacher-student relationship.

Approximately two weeks after each learning session, participants were given a Teacher Implementation Survey via Qualtrics. This four-question survey assessed if teachers have implemented/used any of the knowledge from the first or second learning session with students. Based on survey results, 50% of teacher acknowledged using information from the learning sessions in their teaching practice, and 50% of participants responded they had not used any information from the sessions in their classroom with students. Of the 50% of participants

reporting having implemented learning from the sessions into classroom practice, 6 of 7 of those participants also reported implementing learning after Session 1. Similarly, of the 50% of participants reporting no implementation of learning from the learning sessions, 6 of 7 reported no implementation from Session 1.

Of the 50% of participants who reported implementing learning into classroom practice, many noted activities related to student behavior and assets-based thinking. Examples given included taking time with a student to try to understand why behavior is occurring, being considerate of student circumstances, a focus on assets-based thinking related to students who struggle academically and behaviorally, making an effort to connect with students to understand how they are feeling, self-reflection on biases to which the teacher has been unaware of, and an increase in awareness of poverty as it presents in the classroom.

Of the 50% of participants who reported no implementation of learning into classroom practice, 85.71% (6 out of 7) noted no opportunity presented itself, and 14.29% (1 out of 7) stated lesson plans had already been written as the reason for no implementation. With 85.71% of the half of participants not implementing learning as seeing no opportunity, signified implicit bias is still persistent among participants. Implicit bias is difficult to accept because it is goes virtually unnoticed and is a part of the dominant culture to which white, middle-class educators have been socialized (Sensoy, & DiAngelo, 2017). More learning and exposure to research and data are needed to see change.

*Act.* To assess aspects of the learning session teachers found most useful, Question 3 on the Reflective Impact Questionnaire was analyzed after each session. Four out of fourteen participants (28.57%) expressed appreciating the meeting being held virtually. The design team

determined Session 3 would also be delivered in an online format. Also, five out of fourteen participants (35.71%) noted enjoying the comments of colleagues and presenters who shared personal experiences with students related to the topics discussed in Session 2. Therefore, when planning for Session 3, the design team decided to purposefully allow time for personal sharing during the session. Four out of fourteen participants (28.57%) referenced the usefulness of having the PowerPoint sent out to them as a reference. The design team decided multiple presenters would present the session information, and Session 3 PowerPoint would be sent out to all attendees as a reference to review for future usefulness and implementation.

Important to improvement science is to also ensure participants can communicate throughout the research project what needs improved, and make those adjustments immediately to maximize participant learning throughout the module (Bryk, Gomez, Grunow, & LeMahieu, 2015). To assess aspects of the learning session teachers believed should be changed to make the learning experience better, Question 4 on the Reflective Impact Questionnaire was analyzed after each session. After analyzing participant responses, the design team noted ten out of fourteen participants (71.43%) noted no needed changes which indicated Session 2 was presented in a way most participants felt was beneficial. However, one participant (7.14%) noted a need for a slower pace and time to process the information. The design team determined an effort would be made during Session 3 to slow the pace and go into greater explanation on any slides with numerical statistics. One participant (7.14%) also requested more participant feedback. The design team discussed how to get more participation from attendees. The team decided for Session 3, more wait time would be built into the presentation to encourage participant input.

### **Session 3: Realities of Poverty & Trauma Plan-Do-Study-Act**

*Plan.* Prior to Session 3 the design team met to review the PowerPoint, make any last-minute changes, and determine what slides the members of the team would present. The team also reviewed participant input from Session 2 to determine specific changes for Session 3. It was decided that on any slide containing statistics or numerical data, more explanations and a slower pace would be maintained. Additionally, the team discussed allowing additional wait-time during the presentation to prompt individuals to give personal experiences and input to the group to increase participation among attendees.

The previous two learning sessions were held during the school day due to being 100% remote due to COVID-19 and scheduling Session 2 on a teacher workday. Session 3 was the first learning session held after school hours. The design team discussed the possibility of attendance being an issue but determined a make-up session would be scheduled if necessary.

*Do.* Prior to the afterschool meeting time, email reminders were sent to participants and a final intercom reminder announcement was made prior to student dismissal on the scheduled day of the session. The main objectives covered in Session 3 were disproving the idea of a culture of poverty, clarifying myths versus realities of poverty, understanding the dangers of a culture of classism in the classroom, and understanding trauma and its effects on student experiences.

Participants were guided through the dangers of a culture of poverty and the stereotypes associated with the false ideology. Presenters then took common, but false, myths about poverty and disproved those myths with the realities presented supported by data and research.

Participants were guided through scenarios to understand how believing poverty stereotypes can lead to classism in the classroom and what negative impacts a culture of classism in the classroom can have on student experiences. National data was presented referencing educational

experiences for students living in poverty and showing how resource allocations are dispersed inequitably along class lines across the nation. To help guide conversations and help participants process the new information presenters asked the following questions::

Were any of the myths versus realities research shocking to you?

Can these myths or stereotypes that we hold unintentionally affect how long we are willing to suffer with a student, and how does that ability to suffer with them affect their overall educational experience?

What information related to the national statistics for low-income schools spoke to you personally or was shocking to you?

The learning session then progressed from discussing poverty to discussing trauma students may experience and the impact that trauma has on educational experiences. A review of Maslow's Hierarchy of Needs and the educational impacts of ACEs (Adverse Childhood Experiences) were presented. Research was highlighted showing that poverty was the most common ACE reported nationally and as ACEs increase, struggles in school increase.

Participants were presented with information about fight, flight, and freeze, the body's natural responses to fear and what those can look like as student behavior in the classroom. Presenters then gave the following guiding statements and questions to encourage conversations about trauma, the teacher, and the classroom.

We can see food insecurity and clothing needs as poverty and a sign of possible trauma and our school is phenomenal in addressing those needs.

We view student behaviors such as fight, flight, and freeze as disrespect, defiance, and insubordination and not as a sign or symptom of poverty or trauma. Why is this when we see the other so clearly?

Our reactions to student behaviors affect our relationships with those students. The more we are cognizant of our thoughts, emotions, and triggers, the better prepared we'll be to understand our tendencies and patterns of action.

Following the discussions and contributions of participants, a reminder to fill out the Reflective Impact Questionnaire was given and the learning session was ended.

*Study.* Helping teachers understand stereotypes associated with a culture of poverty, myths versus realities of poverty, and the impacts of ACEs and trauma on educational experiences for students were key points outlined in Session 3. In vivo coding and pattern coding were used to analyze each question on the Reflective Impact Questionnaire. Table 7 below outlines the patterns of participant responses from Session 3 to Question 1 on the Reflective Impact Questionnaire.

**Table 7. Three major ideas learned in order of importance.**

Themes	Responses (n=14)	Percentage
Myths v. Realities of Poverty	9	64.29%
No Culture of Poverty	7	50.00%
Maslow's Hierarchy of Needs	4	28.57%
Educator Self-Awareness	3	21.43%
Effects of ACES	3	21.43%
National Statistics on Poverty	1	7.14%

*Myths versus Realities of Poverty.* Exposing common stereotypes regarding marginalized groups, like individuals living in poverty, and proving their inaccuracies are a powerful way to expose implicit biases. By helping individuals recognize false stereotypical beliefs they have inaccurately held about certain groups of people or students they teach, implicit biases can be exposed and long-held inaccurate beliefs can be rebuffed (Gorsky, 2008; hooks, 2014). Of the 9 participants naming myths versus realities of poverty as major learning, 7 out of 9 ranked it

number one in order of importance. This ranking means 50% of all participants in Session 3 recognized myths versus realities of poverty as new information that challenged long-held stereotypical beliefs. Participant 5 acknowledged implicit bias by stating, “There are many misconceptions regarding poverty.” Participant 10 reiterated having held stereotypical beliefs but appreciated exposure to “the actual truths about the myths we hear.” Several participants noted the specific myth of people living in poverty having a weak work ethic as the number one item of new learning, meaning this myth was believed prior to the learning session. Participant 6 highlighted learning “that our students that are living in poverty have a parent that works full-time” was important new learning. Participant 7 reiterated data presented that showed “60% of children living in poverty have at least one parent who works full time and year round” as new learning. Presenting the common myths of poverty, then showing real data to prove the actual realities of poverty conveyed to participants inaccurate, stereotypical beliefs held by educators. Exposing those false beliefs can impact what educators believe about students living in poverty and their families. This change can result in better educational experiences for those students.

*No Culture of Poverty.* Gorsky (2008) highlighted the inaccuracies of research done that supported the idea of a culture of poverty, noting very small sample sizes that were used to make generalizations to all individuals living in poverty. Damaging research lead to wide-spread stereotyping of individuals living in poverty. During the learning session, presenters outlined the long held myths associated with the ideology of a culture of poverty, then used current research and data to disprove the myths. This information highlighted for participants that no culture of poverty exists, but that individuals in poverty have varied beliefs and behaviors like all other socioeconomic classes (Gorsky, 2008). Five of fourteen participants expressed, “There is no culture of poverty” as important new learning. This demonstrates the likelihood of participants



holding stereotypical beliefs about students and families living in poverty. Participant 5 stated, “There are many prejudices surrounding poverty,” and Participant 6 connected the dangers for students if a teacher believes in a culture of poverty by stating, “Do not lower expectations for lower students.” Believing stereotypes about certain groups of marginalized students can lead teachers to have lower expectations. Unfortunately, students will only rise to meet those low expectations (Banaji & Greenwald, 2016).

*Maslow’s Hierarchy of Needs.* Addressing poverty as a resource gap and a systemic problem, not the problem of the individual in poverty, exposed participants to the hardships and misconceptions for individuals and families living in poverty. Along with acknowledging these hardships and lack of resources and experiences, reviewing Maslow’s Hierarchy of Needs was necessary. Maslow (1943) in his Theory of Human Motivation outlined that basic needs must be met, such as food and safety, before individuals could be motivated to focus on other activities higher on the pyramid of motivation, such as learning and problem-solving. Therefore, when students present in classrooms without basic needs met, learning cannot occur. Several participants referred to the discussion on Maslow as a “review.” However, listing this learning as important demonstrates an understanding of necessity to always keep this knowledge in the forefront. Participant 14 stated, “We have to meet kids’ basic needs before they can learn.” Participant 6 echoed similarly by expressing, “Maslow’s Hierarchy of Needs must be met before learning can occur.” Reinforcing to educators that poverty is systemic and not the fault of the individual can assist in keeping teachers mindful of the importance of meeting students’ basic needs before being concerned about academic progress.

*Educator Self-Awareness.* When discussing myths versus realities of poverty, some participants connected the dangers of believing stereotypes directly to teacher behavior. Participant 11 expressed the problem of teachers having “low teacher expectations for low-income students.” Participant 9 connected the harm of believing stereotypes to deficit-thinking with a reminder that “teachers define students by their strengths rather than their weaknesses,” and for a teacher to “pay attention to how you treat your students.” Therefore, acknowledging how a teacher thinks about a student affects expectations they have for the student and how they interact with the student, both of which have major impacts on student experiences. Knowing teachers think differently about certain students and their behaviors, Participant 2 noted how important it was to “remain logical and regulated in times of stress, model appropriate behavior” as necessary to maintain good teacher-student relationships. Being aware of one’s implicit bias can change how a teacher thinks about a student. Changing educator thinking about students and families living in poverty can have drastic impacts on the student’s overall educational experience.

*Effects of ACEs.* Presenters highlighted the prevalence of ACEs in childhood across the nation, poverty as the most common ACE reported nationally, and the educational impacts associated with ACEs and the trauma they cause (Blodgett & Lanigan, 2018; Felitti, et al., 1998; Souers & Hall, 2016). Participant 3 noted, “Effects of ACEs on mental and physical health” as important new learning. Participant 5 connected poverty as an ACE by noting, “Students outcomes when poverty is present” as important. Participant 12 stated “As ACEs increase so do problems in attendance, behavior, work, and health.” Helping educators analyze root causes of attendance and behavioral issues in students increases awareness of ACE exposure and trauma that may have gone unnoticed if only viewed as defiance and disruption. Understanding ACEs

and trauma as root causes of student struggles, can help educators connect students with needed resources such as counseling or a local food pantry, This reflects they are becoming trauma-responsive in their classroom practices. Whereas, just addressing the behavior will never address the real issues these students face.

*National Statistics on Poverty.* When reviewing national poverty statistics, the presenters emphasized nationally low income schools receive less funding than middle and upper-class schools, low-performing teachers teach predominantly in schools with high populations of students living in poverty, and these same schools have larger class sizes of students compared to schools with higher populations of middle and upper-class students (Bowles & Gintis, 2011; Chambers, 2009). Participant 7 asserted the fact highlighted by Gorski (2008), “low income schools are more likely to suffer rat infestations, inoperative student bathrooms, etc” (p. 34). Seeing poverty as a national systemic issue reiterates what Chambers (2009) defines as the “achievement gap.” Chambers (2009) argued instead of defining students living in poverty as having an achievement gap, a “achievement gap” is actually the issue. These students, their schools, nor their communities receive their equitable share of resources, which affects the quality and outcome of their educational experience.

To further assess participant learning, understanding information that was found challenging to individual perspectives or individual thinking is important to the process of improvement. Information that one finds challenging to a current, possibly long-held perspective, is necessary for implicit biases to be exposed. Table 8 below outlines the patterns of participant responses from Session 3 to Question 2 on the Reflective Impact Questionnaire.

**Table 8. What one thing challenged or changed your thinking or perspective?**

Themes	Responses (n=14)	Percentage
Myths v. Realities of Poverty	7	50.00%
Educator Self-Awareness	4	28.57%
Effects of ACES	2	14.29%

*Myths versus Realities of Poverty.* Having 50% of all participants note information presented in the myths versus realities portion of the learning session as challenging to their thinking demonstrates the prevalence of believing stereotypes and implicit bias among participants. One myth participants noted as a challenge to their thinking was: Individuals living in poverty have a weak work ethic. Participant 4 noted the actual truth, “Poor working adults spend more time working.” Participant 7 stated, “83% of children living in poverty have one employed parent, and poor working adults spend more hours working each week.” Individuals living in poverty lack motivation. Participant 14 was adamant, “Poor people are not unmotivated.” Individuals living in poverty do not value education.” Participant 12 expressed, “Disproving myths of a culture of poverty, poor people don’t value education.”

Similarly, Participant 6 connected new knowledge to explain why some students do not do homework stating, “Many students have working parents so they are not getting the homework or extra help at home.” This understanding can challenge teachers to assist students and families in overcoming barriers to completing homework assignments. When stereotypical beliefs are dispelled, barriers that exist can be overcome.

*Educator Self-Awareness.* Having teachers reflect on their own thinking related to the students they teach and how they react to certain students and challenging behaviors is powerful. However, reflecting on these issues can have impact on teacher practice and student experience in a positive way. From Session 3, Participant 9 was challenged to “focus on the child’s

strengths.” Where Participants 1 and 2 were challenged to be cognizant of their reactions to students. Participant 1 noted the need, “To be cognizant of our thoughts, emotions, and triggers in order to better understand and help students.” Participant 2 reported, “The fight/flight/freeze challenges me to react differently when a student shuts down and just gives the blank stare when pushed to give an answer for this behavior.” Metacognition, thinking about your thinking, is the highest level of Bloom’s Taxonomy. Having teachers reflect at this level is promising.

*Effects of ACEs.* Root-cause analysis of student behavior is key to helping teachers understand their students. After participating in the learning session, Participants 8 and 10 acknowledged the ACEs of poverty and those unknown to the teacher but present in student behavior as challenging to them as educational professionals. Participant 8 expressed, “As a small town, we experience more poverty than other schools.” This participant is challenged by the large number of students experiencing poverty as an ACE in our community. Participant 10 noted a need for a change in teaching practice. “As a teacher, I need to give them the core curriculum and opportunity to practice at school because of their unknown environment at home.” Reflecting on practices that can lead to equity of educational experience of all students is the journey to becoming a trauma-responsive teacher.

Approximately two weeks after each learning session, participants were given a Teacher Implementation Survey via Qualtrics. This four-question survey assesses if teachers have implemented/used any of the knowledge from the first, second, or third learning session with students. Of the 11 participants who completed the survey, 7, or 63.64% of participants noted implementing information from the learning sessions into classroom practice, whereas 4 participants, or 36.36%, acknowledged no implementation. Of the four participants noting no

implementation, two participants had reported no implementation from all three learning sessions. Therefore at the end of Session 3, 12 of the 14 participants, or 85.71% have reported some level of implementation of new learning, while 2 participants, or 14.29%, of participants reported no implementation. Of the 63.64% of participants reporting classroom implementation of new learning, many reported incidents of implementation were in regard to teacher self-reflection, teacher-student communication, and analyzing root-causes of behavior as a result of seeing behavior as a symptom of poverty or trauma. Some examples included, thinking through scenarios and preparing to react appropriately to maintain a good student relationship, having home communication translated into Spanish to increase parental involvement, purposefully focusing on student assets, being conscious of the myths of poverty and not giving in to stereotypical thinking, stepping back and looking at the whole child and asking questions to determine root-causes.

Of the 36.63%, or 4 participants, reporting no classroom implementation of new learning, one participant reported time/too busy as the reason. Another reported no opportunity presented itself. Another stated no implementation because they believe “they already push students to their full potential,” and one final participant reported being out sick as a reason for a lack of implementation. Being too busy, reporting not having an opportunity, and believing students are already being pushed to their fullest potential are all demonstrations of a resistance to change and a struggle to overcome implicit biases held regardless of being presented with data and research to disprove the bias. More time and learning opportunities are necessary for these individuals to see progress.

*Act.* To assess aspects of the learning module teachers found most useful, Question 3 on the Reflective Impact Questionnaire was analyzed after each session. Based on participant input, the design team determined Session 4 would also be delivered in an online format with five out of fourteen participants (35.71%) noting a desire to keep the meeting remote. Also, two out of fourteen participants (14.29%) expressed enjoying having multiple presenters and presenters who shared personal experiences with students related to the topics discussed in Session 3. In planning for Session 4 the design team determined to continue to purposefully allow time for personal sharing during the session. Five out of fourteen participants (35.71%) also acknowledged the usefulness of having the PowerPoint sent out to them as a reference. The team determined for Session 4 multiple presenters would continue to be used in delivering the session information and Session 4 PowerPoint would be sent out to all attendees as a reference to review for future usefulness and implementaiton.

Important to improvement science is to also ensure participants can communicate throughout the research project what needs to be improved and make those adjustments immediately to maximize participant learning throughout the module (Bryk, Gomez, Grunow, & LeMahieu, 2015). To assess aspects of the learning module teachers believed should be changed to make the learning experience better, Question 4 on the Reflective Impact Questionnaire was analyzed after each session. After analyzing participant responses, the design team noted that fourteen of fourteen participants (100%) noted no needed changes, which indicated Session 3 was presented in a way participants felt was beneficial. To report no needed change, participants responded well to a slower pace of the presentation, greater explanations on slides including graphics and statistics, and the addition of purposeful wait time to allow participant input and

sharing of personal experiences added into the presentation. The design team decided those additions made for Session 3 would be continued in Session 4.

#### **Session 4: Classroom Strategies Plan-Do-Study-Act**

*Plan.* Prior to Session 4 the design team met to review the PowerPoint, make any last-minute changes, and determine what slides the members of the team would be presenting. The team also reviewed participant input from Session 3 to determine specific changes for Session 4. The team decided that changes made to Session 3 would be continued for Session 4 since 100% of participants noted no needed changes. The design team reviewed the changes made during Session 3 to ensure that during the presentation for Session 4 on any slide containing statistics or numerical data, more explanations and a slower pace would be maintained. Additionally, the team discussed allowing additional wait-time during the presentation to prompt individuals to provide personal experiences and input to the group to increase participation among attendees. Like Session 3, Session 4 was scheduled to be held after school. The design team discussed the possibility of attendance being an issue but determined a make-up session would be scheduled if necessary.

*Do.* Prior to the afterschool meeting time for Session 4, email reminders were sent to participants and an intercom announcement was made prior to student dismissal to serve as a final reminder of the afterschool meeting. Learning objectives for Session 4 were to understand the impacts of trauma-informed teaching and discuss many strategies to use within the classroom for students who live in poverty and/or have experienced trauma.

To begin, teachers were reminded of the fight, flight, freeze responses to fear by asking them to imagine being chased by a tiger, then immediately after escape, having to sit down and be asked to multiply fractions. The presentation then reviewed trauma-informed teaching and



specific strategies to use with students to foster and build a strong teacher-student relationship. Teachers were then guided through specific ways to build a strong classroom community, foster good school-home communication, and create a safe atmosphere for learning. After presenting each category, participants were given opportunities to share and highlight with their colleagues' ways they incorporate those aspects of trauma-informed teaching into their classrooms.

The design team then discussed appropriate ways to teach students about mental health, cite specific examples of how to help students self-regulate. Participants were asked to give specific examples of ways they meet students' needs while covering the curriculum, and the importance of having a growth mindset for students and teaching them to have a growth mindset for themselves.

Other important aspects of classroom design were discussed, including cooperative learning, and the benefits of incorporating purposeful movement. Again, participants were asked to share ways they have been successful making learning social and what they see as the benefits of movement in the classroom. The presentation ended by reminding teachers that nothing affects student experiences more in a classroom than the teacher. Being trauma-informed and purposeful in classroom design can have drastic effects of student experiences.

*Study.* Highlighting trauma-informed classroom teaching strategies, reiterating the importance of addressing trauma and mental health in the classroom, and the importance of a growth versus a fixed mindset were the main objectives of Session 4. In vivo coding and pattern coding were used to analyze each question on the Reflective Impact Questionnaire. Table 9 below outlines the patterns of participant responses from Session 4 to Question 1 on the Reflective Impact Questionnaire.

**Table 9. Three major ideas learned in order of importance.**

Themes	Responses (n=13)	Percentage
Trauma-Informed Practices	13	100.00%
Fixed v. Growth Mindset	5	38.46%
Student Mental Health	2	15.39%
Effects of Trauma on Education	2	15.39%

*Trauma-Informed Practices.* With 100% of participants noting trauma-informed practices as one of their items of major importance, discussing specific classroom practices to address student needs was very impactful to participants. Van Duzor (2011) noted professional learning teachers view as most meaningful is learning directly related to the students they teach, and it is more likely to be transferred into teaching practice. Multiple participants specifically listed building teacher-student relationships, the importance of a positive school-home relationship, building a sense of classroom community where students feel safe, and the benefits to incorporate purposeful movement into the school day as important strategies to incorporate into teaching practice. Participant 3 noted that “Trauma-informed teaching can change the lens of these students.” In relation to the importance of movement and student engagement, Participant 8 stated, “Worksheets do not engage students. Activities based on standards do.” Participant 7 demonstrated an understanding of the importance of student engagement and movement by declaring, “Students brains do not comprehend more information even if there is an increase in instructional time.” Educators reflecting on how best to maximize instructional time by incorporating trauma-informed practices is vital to an increase in experiences for students effected by trauma.

*Fixed versus Growth Mindset.* Guskey (2010) highlighted a change in teacher beliefs and attitudes is one of the critical components to truly impact and change teacher practice, along with classroom practices and student learning experiences. Fostering a growth mindset in

educators can, in turn, instill a growth mindset in students leading to greater academic success. Participants noted as major ideas of learning and importance a connection between having a growth mindset and assets-based thinking. Participant 9 connected, “Focusing on students’ strengths rather than weaknesses-fixed mindset/growth mindset.” Participant 7 named, “the impact of growth mindset” as important new learning. Having educators note a change in their own beliefs and attitudes about students is a way to demonstrate an understanding of formerly held implicit bias and a recognition of a need for change.

*Student Mental Health.* Part of trauma-informed teaching is to effectively discuss mental health with students in the classroom and to recognize students who may be struggling with mental health and need additional resources. Having previously reviewed Maslow’s Hierarchy of Needs and the impacts of ACEs, and trauma in Session 3, participants connected the need to address mental health in the classroom. Participant 5 noted educators must incorporate into their practice, “Helping students understand and know how to deal with mental health.” Participant 3 noted “1 in 5 students have a diagnosable mental health disorder,” indicating the prevalence of mental health among students as important new learning. Having learned the frequency of diagnosis of students impacted by a mental health disorder, Participant 3 also connected this learning to a need in classroom practice to incorporate, “self-regulation and other mental health strategies to prepare students for learning.” Educators understanding a need to address mental health can mitigate many of the barriers to education faced by students effected by ACEs and trauma, such as behaviors, low attendance, and coursework struggles (Siwatu, 2007; Souers & Hall, 2016).

*Effects of Trauma on Education.* Exposing participants to poverty data for Graham County, the effects of ACEs and trauma on education, and the importance of trauma-informed practices, participants noted understanding trauma as important new learning. Having discussed poverty as the number one ACE reported nationally, Participant 10 stated, “Poverty affects so much more than we realize.” Participant 13 highlighted new learning regarding students experiencing trauma and noted “how trauma can change how students learn and what trauma looks like in students” as important for educator awareness. Cohen (2016) supported the importance of addressing trauma in school as a means to improve educational experiences. Educator awareness of higher numbers of students affected by trauma and mental health can lead to more students receiving the help they need to address these root-causes of educational struggle.

To further assess participant learning, understanding information that was found challenging to individual perspectives or individual thinking is important to the process of improvement. Information that one finds challenging to a current, possibly long-held perspective, is necessary for implicit biases to be exposed. Table 10 below outlines the patterns of participant responses from Session 4 to Question 2 on the Reflective Impact Questionnaire.

**Table 10. What one thing challenged or changed your thinking or perspective?**

Themes	Responses (n=13)	Percentage
Student Mental Health	5	38.46%
Trauma-Informed Practices	4	30.77%
Fixed v. Growth Mindset	3	23.08%
No Challenges Reported	1	7.69%

*Student Mental Health.* Several participants noted the need to teach students about mental health as a challenge to their perspective. Mental health has been seen as a separate field

from education. However, when mental health issues affect classroom learning, educators must address mental health effectively in the classroom. Unfortunately, teacher preparation programs focus more on pedagogy leaving teachers ill-prepared to address mental health in the classroom (Ladson-Billings, 2006; Sacks, Murphy & Moore, 2014). Participant 3 expressed a recent realization “that many students stay in the fight, flight, freeze mode, which prevents them from learning emphasizes the importance of addressing mental health needs.” Participant 7 noted a change in thinking stating, “How important it is to help students regulate their feelings/transition to a mindset ready for learning.” Addressing mental health is challenging for educators, however, seeing the necessity of incorporating mental health and self-regulation strategies into the classroom environment will address the needs of many students.

*Trauma-Informed Practices.* Teacher preparatory programs lack proper focus on preparing teachers to address mental health and trauma in the classroom. Therefore, seeing a need to implement trauma-informed practices can be challenging to educators, both those having completed a traditional teacher preparatory program and those with a non-traditional path to licensure. Participant 11 was challenged to think differently about student behavior and noted, “How trauma-informed teaching makes me think about what is going on in my students’ lives. Why are they acting this way? How can I help them? This helped me.” Other participants noted specific classroom practices discussed in the learning session as changes to consider in their practice. Regarding the need for purposeful movement, Participant 8 was challenged with the understanding, “Students’ brains do not comprehend more information even if there is an increase in instructional time.” Participant 6 noted, “Brain breaks are more important than I thought.” While Participant 9 declared a need for “more hands on activities and less worksheets.”

Increasing student engagement and allowing movement will help students focus on the learning activity and maximize instructional time.

*Fixed versus Growth Mindset.* As educators, focusing on skill deficits is necessary to fill gaps in education and allow students to catch up to their grade level peers. However, educators must refrain from deficit thinking about students in general. A growth mindset for students correlates with a focus on student strengths and taking the responsibility to ensure all students overcome barriers to meet their full potential. Participant 13 self-reflected a need for “working more on students strengths versus deficits,” while Participant 10 noted a call to action: “I need to remember we are training up a nation.” Ensuring all students can thrive challenged Participant 5 about “being more sensitive to non-English speaking parents.” When the mindset of the educator is focused on ensuring the success of all students, growth mindsets are present. One participant did not report any challenges to their perspective or thinking.

Approximately two weeks after each learning session, participants were given a Teacher Implementation Survey via Qualtrics. This four-question survey assessed if teachers had implemented/used any of the knowledge from the first, second, third, or fourth learning session with students. Of the 12 participants who completed the survey after learning Session 4, 10 of 12, or 83.33% of participants reported implementing new learning from the learning sessions into their classroom practice. The remaining 2 participants (16.17%) reported no implementation of learning.

Ten out of twelve (83.33%) of participants implemented learning into classroom practice. Strategies they reported using were awareness of student interactions, purposefully focusing on students assets and strengths, and an increase in hands-on activities. Of the 16.17% of

participants noting no implementation, no opportunity presented itself was the reason given. In analyzing survey results through all four learning sessions, only Participant 14 noted no implementation of learning consistently, and Participant 14 did not complete the Teacher Implementation Survey after Session 4. Therefore, 13 out of 14 total participants (92.86%) reported implementing new learning into classroom practice at some point throughout the four learning sessions. Only 1 out of 14 total participants (7.14%) reported no implementation of new learning at any point throughout the four learning sessions.

*Act.* To assess aspects of the learning session teachers found most useful, Question 3 on the Reflective Impact Questionnaire was analyzed after each session. Seven out of thirteen participants (53.85%) noted the usefulness of having the PowerPoint sent out to them as a reference. The design team determined to note for future presentations that, if possible, presentation materials would be sent out to all attendees as a reference to review for future usefulness and implementation. Three out of thirteen (23.08%) noted enjoying having multiple presenters and presenters who shared personal experiences with students related to the topics discussed in Session 4. In planning for future learning, the team determined to continue to purposefully allow time for personal sharing. One participant (7.69%) noted the growth mindset portion of the learning session as particularly meaningful. The team determined more information about growth mindsets will be collected and shared with teachers in gradelevel PLCs.

Important to improvement science is to also ensure participants can communicate throughout the research project what needs to be improved and make those adjustments immediately to maximize participant learning throughout the module (Bryk, Gomez, Grunow, &

LeMahieu, 2015). To assess aspects of the learning module teachers believed should be changed to make the learning experience better, Question 4 on the Reflective Impact Questionnaire was analyzed after each session. After analyzing participant responses, the design team noted that fourteen out of fourteen participants (100%) indicated no needed changes. Session 4 was presented in a way participants felt was beneficial. To report no needed change, participants responded well to a slower pace to the presentation, greater explanations on slides including graphics and statistics, and the addition of purposeful wait time to allow participant input and sharing of personal experiences into the presentation. The design team decided that those aspects of the presentation should be considered for future learning sessions offered.

Throughout this research project a total of 53 Reflective Impact Questionnaires were completed. Of the 53, only 12 total Reflective Impact Questionnaires throughout all four learning sessions added Other Comments. Using In-Vivo for first-round coding and pattern coding for second-round coding, Question 5, Other Comments was analyzed.

***Beneficial Learning.*** Of the 12 Reflective Impact Questionnaires having other comments, seven out of twelve (58.33%) of those comments noted the professional learning opportunity as beneficial. Participant 2 noted, “Good eye-opener. How can we get to know our students/families more?” Participant 8 expressed, “I really enjoyed this presentation and the factual statistics. Although it can be alarming.” Participant 3 noted, “Very meaningful information,” and Participant 11 referenced new information learned by stating, “Thank you for sharing the myths. It was very eye opening for me.” Having participants believe the learning was beneficial increases the likelihood the information presented will be connected to classroom practice.



*A Request for More Learning Opportunities on Poverty and Trauma.* Coming to understand what we don't know is a powerful part of new learning. Participants, based on their input, were shocked at the number of students in Graham County Schools experiencing poverty and/or trauma. Based on this new knowledge, five of twelve participants (41.67%) want more learning opportunities in understanding poverty and being trauma-informed. Participant 11 and 3 both noted a desire to know more about statistics related to poverty and drug addiction in our community, questioning statistics related to "children born addicted to drugs" and "E.C. identification for many of our students at a higher rate than state average" as a result of parental drug use.

Other participants noted a general need for more learning in the areas of trauma-informed practice and poverty. Participant 12 commented, "I still feel like I need to know more about what to do to help my students of poverty and trauma." Similarly, Participant 12 noted, "Some students can be harder to connect with. I would love to work on those connections more, and we need trauma training ASAP it sounds like." The design team discussed the need to seek out additional learning opportunities for teachers on ACEs and trauma-informed practices. The team discussed the possibility of adding an agenda item to monthly grade-level PLCs to ensure the topic is continually discussed and research is presented to help teachers gain a greater understanding of poverty and trauma.

### **Summative Evaluation of Goals with Results**

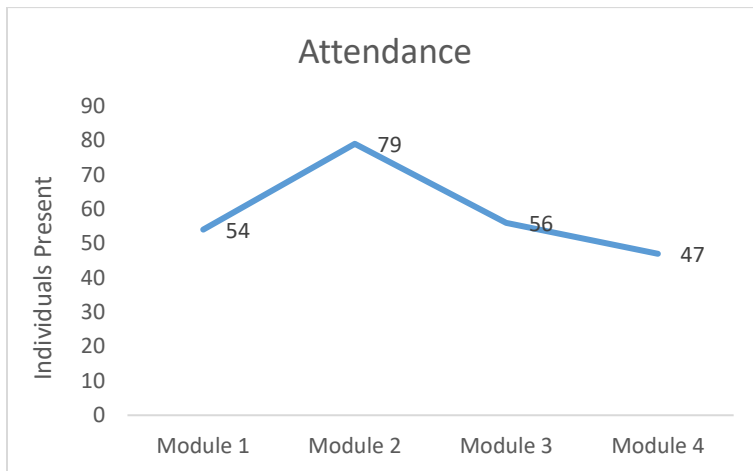
The ultimate goal of this research project was to build teacher capacity in understanding their own implicit bias by addressing classism in the school environment and deficit ideology related to students and families living in poverty to increase educational experiences for students

living in poverty. Based on the tenants of improvement science, measurable goals were developed to determine if this research initiative resulted in improvement (Bryk et al., 2015; Langley et al., 2009). Data analysis was performed to determine if goals were met and improvement occurred.

*Goal 1: Of the 36 certified teachers expected to attend each of the four learning sessions offered in this improvement initiative, 75% (at least 27 teachers) will attend each session, with a make-up session offered if necessary should attendance drop below 75%.*

Any improvement initiative can only be successful if the targeted audience of the initiative are present, involved, and actually have exposure to the intervention designed to potentially bring about change. Figure 12 below is a run-chart outlining attendance to each of the four learning modules presented during this research project.

**Figure 12. Attendance Run Chart**



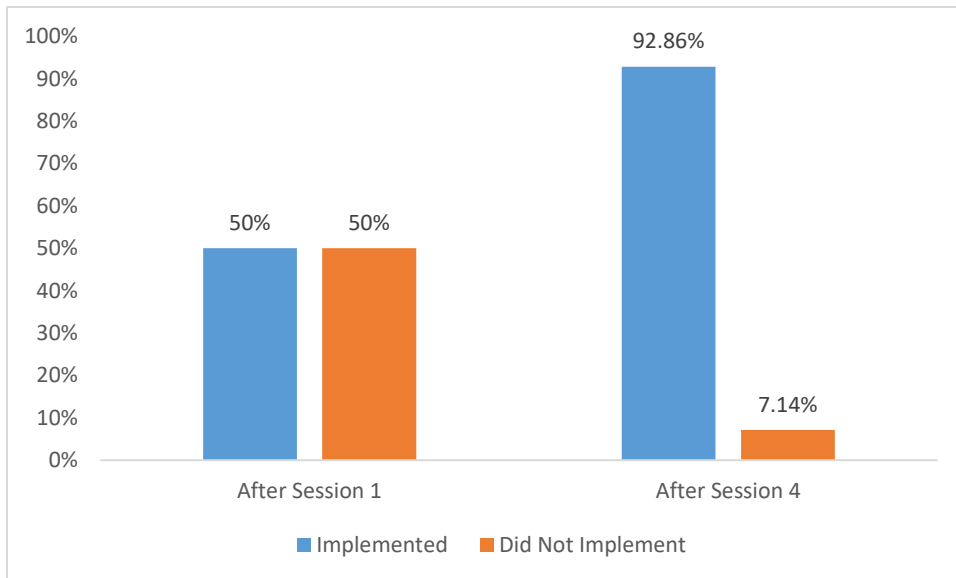
Attendance data demonstrated the attendance goal of 75% of all certified teachers expected to attend each learning module was met. Additionally, other staff, including non-certified teacher assistants, student support staff, central office directors, and members of the technology department requested to attend sessions. Therefore, attendance at each session

surpassed expectations. No make-up session was required for any learning session due to initial attendance meeting pre-established goal requirements.

*Goal 2: Teacher survey data will demonstrate a 10% increase in implementation of classroom practices that demonstrate an assets-based ideology when addressing their students by December 2021.*

Teacher learning without transfer into professional practice is ineffective. One measure used to determine intervention effectiveness was measuring the level of impact professional learning has had on classroom practices. Approximately two weeks after each learning session, participants were given a Teacher Implementation Survey via Qualtrics. This four-question survey assessed if teachers had implemented/used any of the knowledge from the first, second, third, or fourth learning session with students. See Figure 13 below for implementation results from after Session 1 to after Session 4 of the learning module.

**Figure 13. Implementation Results from After Session 1 to 4 of the Learning Module**



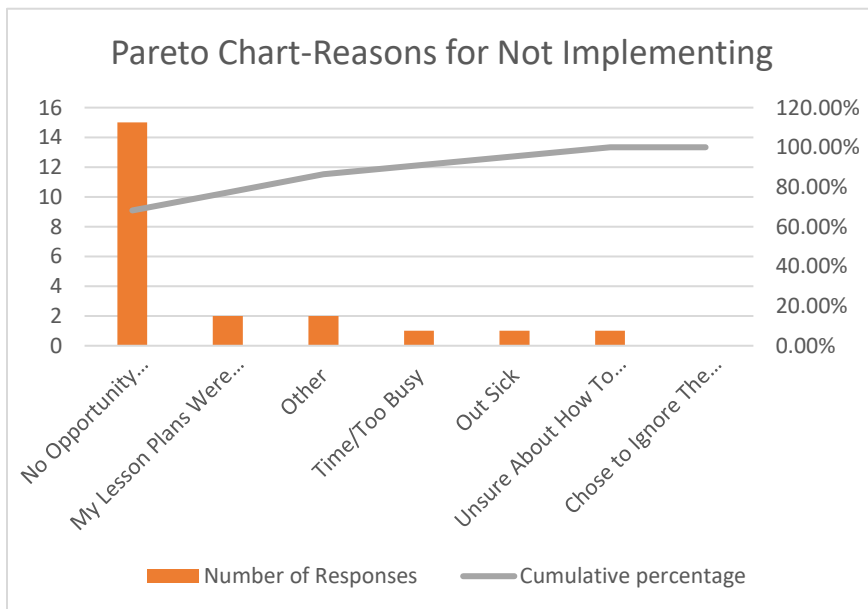
After Session 1, 50% of teachers acknowledged using information from the learning session in their teaching practice, and 50% of participants responded they had not used any

information from the session in their classroom with students. In analyzing survey results through all four learning sessions, only Participant 14 noted no implementation of learning consistently, and Participant 14 did not complete the Teacher Implementation Survey after Session 4. Therefore, 13 out of 14 total participants (92.86%) reported implementing new learning into classroom practice at some point throughout the four learning sessions.

Implementation of new learning increased from 50% (after Session 1) to 92.86% (after Session 4), which is an overall increase of 42.86% implementation, surpassing the goal of a 10% increase in implementation.

With any new information, assessing level of implementation is important. Equally important is analyzing why implementation may not be occurring. Figure 14 below is a Pareto Chart outlining reasons given for a lack of implementation of learning into classroom practice over the course of this research proposal.

**Figure 14. Pareto Chart-Reasons for Not Implementing**



Data analysis from Session 1 noted 50% of participants did not implement any learning into classroom practice after Session 1 but prior to Session 2. Following Session 4, 7.14% of participants still noted no implementation of new learning throughout the entire initiative. Throughout the four-session professional learning module, a lack of implementation decreased from 50% to 7.14%, which is a 42.86% reduction. As Figure 13 shows, the most common reason given for no implementation at 68.18% was “No Opportunity Presented Itself.” Other reasons were “My Lesson Plans Were Already Written,” 9.09%, “Other,” 9.09%, “Time/Too Busy,” 4.55%, “Out Sick,” 4.55%, and “Unsure About How To Address the Issue,” 4.55%. With 68.18% of those choosing not to implement new learning noting “No Opportunity Presented Itself,” the design team discussed this as an indicator of a need for more learning opportunities in poverty and trauma for these individuals to begin to see the opportunities that are present within our classrooms. Overall, data demonstrating a 42.86% increase in implementation and a high percentage (92.86%) of all participants reporting some implementation during the initiative are promising data that the change initiative will result in long-term improvement.

*Goal 3: Teachers, through pre and post survey data, will report an 80% increase in capacity in understanding poverty (classism) and teacher implicit bias within the school system by December 2021. Research analysis will hopefully yield a p value of <.05 and demonstrate the change resulting from this research proposal is statistically significant.*

### **Teacher Beliefs & Classroom Practices Pre and Post Survey**

For the purposes of this improvement initiative the researcher measured the effect of a teacher learning module on building capacity for educators to understand teacher implicit bias and the impacts it has on students with class differentials. Therefore, pre-and post surveys measuring teacher beliefs and classroom practices associated with teacher implicit bias and

assets-based ideology were collected and analyzed using a paired-samples t-test. The finalized pre and post survey instrument was developed using Qualtrics and included questions from Siwatu's (2007) Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) and the Culturally Responsive Teaching Outcome Expectancy Scale (CRTOE). The CRTSE internal validity for the 40-item measure was .96, as estimated by Cronbach's alpha and CRTOE internal validity for the 26-item scale was .95, as estimated by Cronbach's alpha. These instruments were not used in their entirety, but select items were used only if they had a factor loading range greater than 0.5.

Additionally, select items from Blitz, Yull, & Clauhs (2020) Teaching Tolerance Toolkit were used. Questions from Principle 3: Move the Discipline Paradigm from "Punishment to Opportunities to Teach Desired Behaviors," and Principle 5: Know the Students and Continually Develop Cultural Responsiveness were selected.

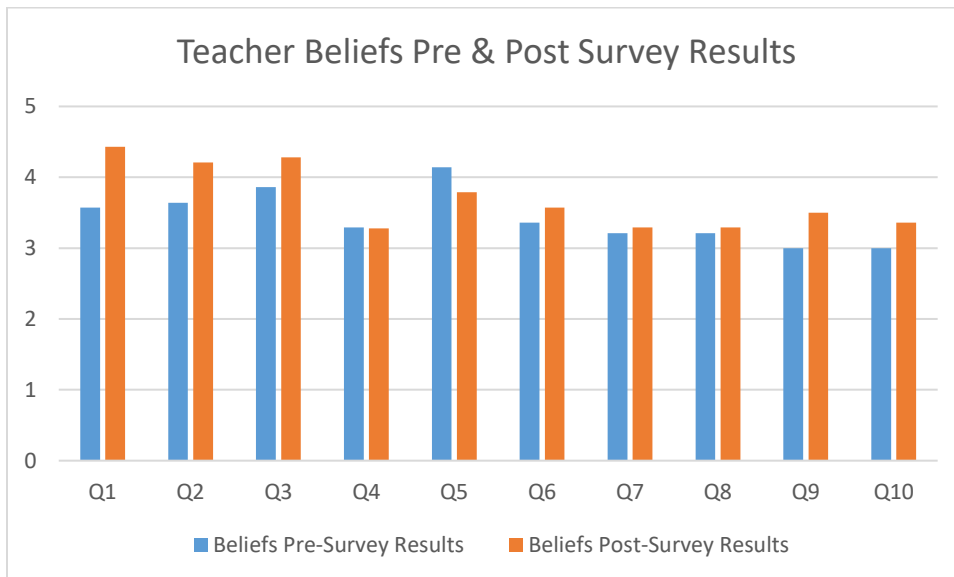
Questions for the three above survey instruments were combined into a staff survey of approximately twenty questions, taking no more than 10 minutes to complete. The survey provided information on teachers' perspectives of their own socioeconomic class, the socioeconomic class of most students they teach, their beliefs, and their classroom practices. Upon completion of the teacher learning module, data was analyzed to compare responses before the module to beliefs and practices after being exposed to the learning module. A five point Likert Scale was used for participant responses. For data analysis purposes, a paired-samples t-test was conducted using SPSS 26 Software.

The pre survey was administered prior to Session 1, and the post survey was administered after Session 4. All fourteen participants completed both the pre and post survey. Participants were assigned unique identifier numbers for anonymity during the project. When

completing the post survey, three participants did not enter their unique identifier into the survey so doing individual participant comparisons was not possible.

Figure 15 below shows pre and post survey results from the 10 questions on the Teacher Beliefs and Classroom Practices Survey addressing teacher beliefs related to marginalized student groups. Responses regarding teacher beliefs were recorded on a five-point Likert Scale and given a numerical value of 1 to 5, with 1 representing “Not At All,” 2 representing “To A Small Degree,” 3 representing “To A Moderate Degree,” 4 representing “To A Considerable Degree,” and 5 representing “To A Great Degree.” Mean scores were calculated for each of the 10 survey questions related to teacher beliefs, and those means were then compared from the pre survey to the post survey response.

**Figure 15. Teacher Beliefs Pre and Post Survey Results**



As shown above, Questions 1, 2, 3, 9, and 10 show a noticeable increase in teacher beliefs related to students living in poverty and from marginalized groups. Questions 6, 7, and 8, show minor to very small growth, while Question 4 shows little change and Question 5 demonstrates a decline.

Figure 16 below is the descriptive statistics calculated from the paired samples t-test performed using SPSS 26 software, showing the mean and standard deviation data comparing each of the 10 teacher belief survey questions by pre and post survey responses.

**Figure 16. Descriptive Statistics of Teacher Beliefs from Paired Samples T-Test**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	VAR00001	3.57	14	1.222	.327
	VAR00002	4.14	14	1.027	.275
Pair 2	VAR00003	3.64	14	1.277	.341
	VAR00004	4.21	14	.802	.214
Pair 3	VAR00005	3.86	14	1.406	.376
	VAR00006	4.29	14	.726	.194
Pair 4	VAR00007	3.21	14	1.578	.422
	VAR00008	3.14	14	1.231	.329
Pair 5	VAR00009	4.14	14	1.167	.312
	VAR00010	3.79	14	1.311	.350
Pair 6	VAR00011	3.36	14	1.277	.341
	VAR00012	3.57	14	1.158	.309
Pair 7	VAR00013	3.21	14	1.122	.300
	VAR00014	3.29	14	.914	.244
Pair 8	VAR00015	3.21	14	.975	.261
	VAR00016	3.29	14	.994	.266
Pair 9	VAR00017	3.00	14	1.177	.314
	VAR00018	3.50	14	.855	.228
Pair 10	VAR00019	3.00	14	1.177	.314
	VAR00020	3.36	14	.929	.248

*Note:* Each pair listed above and its calculations represent one question comparing pre and post survey results. Example, Pair 1 is Question 1 of the survey, with odd numbers within the pair representing pre survey results and even variable numbers representing post survey results.

In performing a paired samples t-test using SPSS 26 Software, of the 10 questions related to teacher beliefs and in comparing pre and post survey results, minor increases in teacher beliefs were noted. See Table 11 below for the paired samples t-test results.



**Table 11. Paired Samples T-Test of Pre & Post Survey Results of Teacher Beliefs**

	Mean	Std. Deviation	Std. Error of the Mean	95% Confidence Interval of the Difference		t	df	Significance	
				Lower	Upper			One-sided p	Two-sided p
Q1	-.571	1.064	.429	-1.497	.345	-1.333	1.3	.103	.205
Q2	-.571	1.604	.429	-1.497	.345	-1.333	1.3	.103	.205
Q3	-.429	1.742	.465	-1.434	.577	-.921	1.3	.187	.374
Q4	0.71	1.859	.497	-1.002	1.145	.144	1.3	.444	.888
Q5	.357	1.393	.372	-.447	1.161	.960	1.3	.177	.355
Q6	-.214	1.888	.505	-1.305	.876	-.425	1.3	.339	.678
Q7	-.071	1.385	.370	-.871	.728	-.193	1.3	.425	.850
Q8	-.071	1.207	.322	-.768	.625	-.221	1.3	.414	.828
Q9	-.500	1.345	.359	-1.276	.276	-1.391	1.3	.094	.187
Q10	-.357	1.216	.325	-1.059	.345	-1.099	1.3	.146	.252

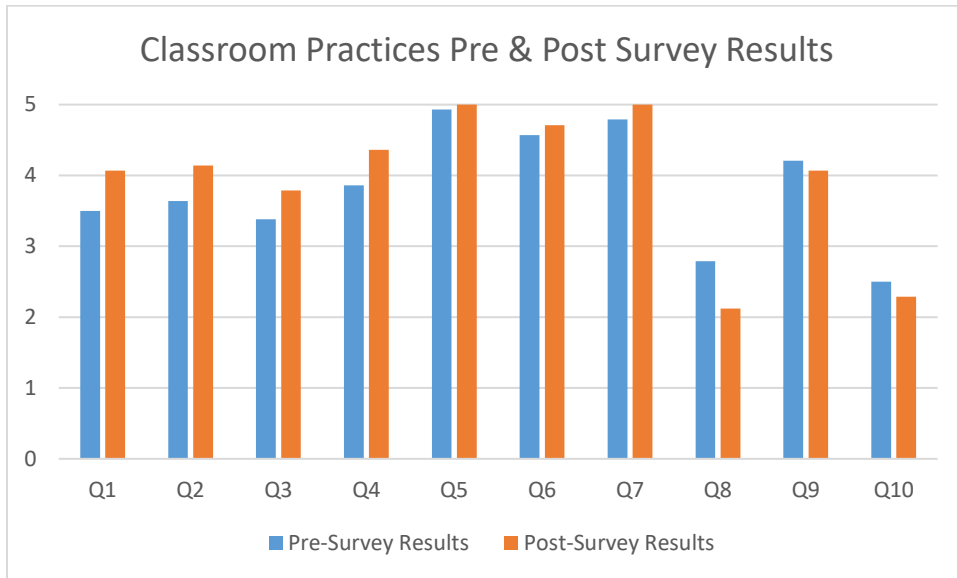
The researcher analyzed the results of the paired samples t-test for statistical significance. T values did not present larger than values referenced in the Critical Values Chart, no p value presented at  $p < .05$ , and an analysis of the 95% confidence interval of difference demonstrates intervals that cross or include zero (Tanner, 2012). Therefore, the researcher concluded that although some changes in teacher beliefs are noted by a change in mean from pre to post survey, statistical significance of change is not present based on pre and post survey results of teacher beliefs.

Goal 4: Teacher survey data will demonstrate a 10% increase in implementation of classroom practices that demonstrate an assets-based ideology when addressing their students by December 2021.

Figure 17 below shows pre and post survey results from the 10 questions on the Teacher Beliefs and Classroom Practices Survey addressing teacher classroom practices related to marginalized student groups. Responses regarding teacher beliefs were recorded on a five-point Likert Scale and given a numerical value of 1 to 5, with 1 representing “Not At All,” 2 representing “To A Small Degree,” 3 representing “To A Moderate Degree,” 4 representing “To

A Considerable Degree,” and 5 representing “To A Great Degree.” Mean scores were calculated for each of the 10 survey questions related to teacher classroom practices, and those means were compared from the pre survey to the post survey response.

**Figure 17. Teacher Classroom Practices Pre and Post Survey Results**



As shown above, Questions 1, 2, 3, and 4 show a noticeable increase in teacher classroom practices related to students living in poverty and from marginalized groups. Questions 5, 6, and 7 show minor to very small growth, while Questions 8, 9, and 10 demonstrate a decline.

Figure 18 below is the descriptive statistics calculated from the paired samples t-test performed using SPSS 26 software, showing the mean and standard deviation data comparing each of the 10 teacher classroom practices survey questions by pre and post survey responses.

**Figure 18. Descriptive Statistics of Teacher Classroom Practices from Paired Samples T-Test**

Paired Samples Statistics		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	VAR00001	3.5000	14	1.50640	.40260
	VAR00002	4.0714	14	1.14114	.30498
Pair 2	VAR00003	3.5000	14	1.50640	.40260
	VAR00004	4.1429	14	1.02711	.27451
Pair 3	VAR00005	3.3846	13	1.50214	.41662
	VAR00006	3.6923	13	1.10940	.30769
Pair 4	VAR00007	3.8571	14	1.09945	.29384
	VAR00008	4.3571	14	.92878	.24823
Pair 5	VAR00009	4.9286	14	.26726	.07143
	VAR00010	5.0000	14	.00000	.00000
Pair 6	VAR00011	4.5714	14	.93761	.25059
	VAR00012	4.7143	14	.61125	.16336
Pair 7	VAR00013	4.7857	14	.57893	.15473
	VAR00014	5.0000	14	.00000	.00000
Pair 8	VAR00015	2.7857	14	1.31140	.35049
	VAR00016	2.2143	14	.97496	.26057
Pair 9	VAR00017	4.2143	14	1.18831	.31759
	VAR00018	4.0714	14	1.14114	.30498
Pair 10	VAR00019	2.5000	14	1.09193	.29183
	VAR00020	2.2857	14	.82542	.22060

*Note:* Each pair listed above and its calculations represent one question comparing pre and post survey results. Example, Pair 1 is Question 1 of the survey, with odd numbers within the pair representing pre survey results and even variable numbers representing post survey results.

In performing a paired samples t-test using SPSS 26 Software, of the 10 questions related to teacher classroom practices and comparing pre and post survey results, minor increases in classroom practices were noted. See Table 12 below for the paired samples t-test results.

**Table 12. Paired Samples T-Test of Pre/Post Survey Results of Teacher Classroom Practices**

	Mean	Std. Deviation	Std. Error of the Mean	95% Confidence Interval of the Difference		t	df	Significance	
				Lower	Upper			One-sided p	Two-sided p
Q1	-.57143	2.20887	.59035	-1.84679	.70994	-.968	13	.175	.351
Q2	-.64286	1.69193	.45219	-1.61975	.33404	-1.422	13	.086	.179
Q3	-.30769	1.88788	.52360	-1.44853	.83314	-.588	12	.284	.568
Q4	-.50000	1.65250	.44165	-1.45413	.45413	-1.132	13	.139	.278
Q5	-.07143	.26726	.07143	-.22574	.08288	-1.000	13	.168	.336
Q6	-.14286	.66299	.17719	-.52566	.23994	-.806	13	.217	.435
Q7	-.21429	.57893	.15473	-.54855	.11998	-1.385	13	.095	.189
Q8	.57143	1.91007	.51049	-.53141	1.67427	1.119	13	.142	.283
Q9	.14286	1.95555	.52264	-.98624	1.27196	.273	13	.394	.789
Q10	.21429	1.47693	.39473	-.63847	1.06704	.543	13	.289	.596

The researcher analyzed the results of the paired samples t-test for statistical significance. T values did not present larger than values referenced in the Critical Values Chart, no p value presented at  $p < .05$ , and an analysis of the 95% confidence interval of difference demonstrates intervals that cross or include zero (Tanner, 2012). Therefore, the researcher concluded that although some changes in teacher classroom practices are noted by a change in mean from pre to post survey, statistical significance of change is not present based on pre and post survey results of teacher classroom practices.

Throughout the four-session learning module, participants responses in the Reflective Impact Questionnaire demonstrated the ability for teachers to put into writing their processing of new information related to poverty and trauma, and to note new learning that challenged their thinking. Within those responses, teacher participants did communicate thoughts and ideas related to their personal beliefs and classroom practices related to students in poverty, experiencing trauma, or otherwise marginalized. However, new learning was not represented in the comparison of participant responses from the pre and post survey of Teacher Beliefs and Classroom Practices. Although teachers were able to communicate new learning in their own words, statistical significance based on pre and post survey results was not present. Sibthorp,

Paisley, Gookin, and Ward (2007) noted in research, pre and post survey results can be affected by retrospective response bias due to a lack of knowledge existing at the time a pre survey is given, meaning participants may rate themselves higher on a pre survey simply because they have a lack of knowledge in the area being surveyed. Their perception of how they think they are doing in regard to the topic surveyed, prior to exposure to new learning, may be rated higher. After exposure to the learning, new knowledge may result in participants giving themselves a lower score, showing a downward shift from the pre survey to post survey (Sibthorp, et. al, 2007). Participants having a realization of a lack of understanding in how they thought they were doing prior to being exposed to new knowledge is a common trend in research using pre and post survey data. This trend could explain the lack of statistical significance being demonstrated in the Teacher Beliefs & Classroom Practices survey given during this research project.

Additionally, hooks (2014) outlined how stereotypes about marginalized groups to which individuals have been socialized are difficult to change. Similarly, Banaji, Greenwald (2016) reported how these “mind bugs” are deeply ingrained, even in those to which they are directed, and require a conscious understanding and desire to recognize and address them when they surface. For those recognizing these biases, addressing them within oneself is a lifelong journey. Therefore, over this 12-week research project, teachers were exposed to implicit bias related to students living in poverty. More time and learning are needed to show significant change in personal beliefs.

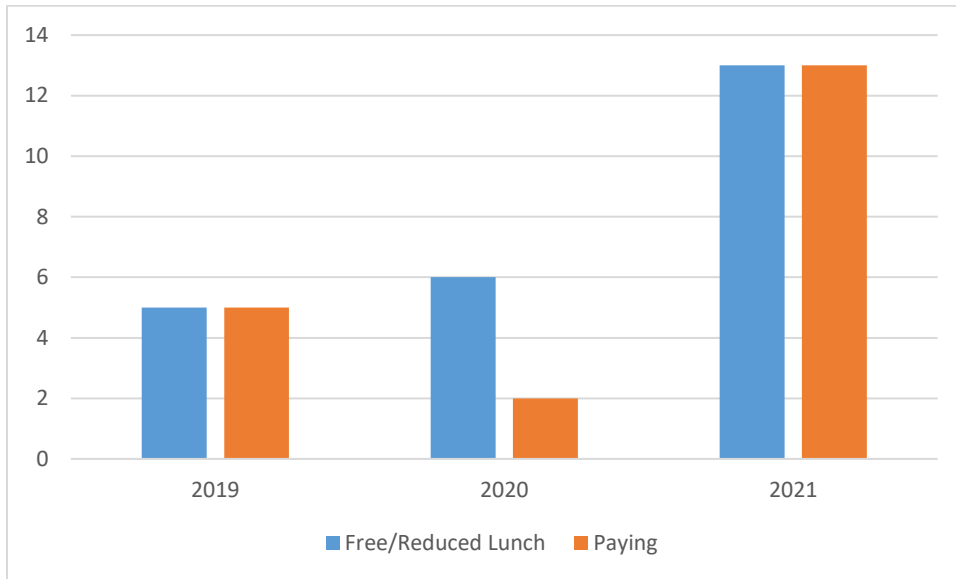
*Goal 5: Student E.C. referrals will decrease by 10% for students living in poverty by December 2021.*

In looking at district data prior to the 12-week research project, in reference to class and comparing those guidelines to district E.C. data, it is clear students living in poverty are identified at a higher rate as having an educational disability than their white, middle-class peers in GCS. Additionally, schools are funded at a rate of 12.75% annually to provide children with disabilities, or identified as exceptional, with needed services to ensure a free and appropriate public education for all students (Individuals with Disabilities in Education Act of 1990). Graham County Schools E.C. rate was reported at 15.3% (Graham County School System, 2020a). This demonstrates the district was over identifying students with disabilities compared to the national average, and this problem is higher for students in the district who are living in poverty. This is evident classism is playing a role inside the school system and leading to inequity for students. The goal of the 12-week research project was to raise awareness of the issue of over identification of students living in poverty, and to see a decrease in those numbers as a result.

Figure 19 below demonstrates the number of students referred for E.C. testing in Graham County Schools in the past three school years from the months of August through December. Graham County Schools reported students qualifying for Free/Reduced Lunch at a district rate of 60.97%, with 30.03% of students in the district not qualifying, or paying (Graham County Schools, 2020c). As shown above, from August to December 2019, 10 total students were referred for E.C. testing. Five students (50%) of students received free/reduced lunch and 5 (50%) of students were paying. From August to December 2020, 8 total students were referred for testing, 6 (75%) qualified for free/reduced lunch, and 2 (25%) of students were paying. From August to December 2021, which is the timeframe of this 12-week research project, 26 total

students were referred for E.C. testing, with 13 (50%) of students qualifying for free/reduced lunch and 13 (50%) of students were paying.

**Figure 19. Students Referred for E.C. Testing: Free/Reduced Lunch to Those Not Qualifying**



Based on the district percentage of students qualifying for free/reduced lunch at 60.97%, an analysis of this descriptive data shows from August to December of 2019 and 2021 proportional representation of students referred for E.C. testing is within reasonable limits being reported at 50%. However, from August to December of 2020, students referred for E.C. testing qualified for free/reduced lunch at a rate of 75%, which is 14.97% higher than the proportional representation of students in the district qualifying for free/reduced lunch.

For the purposes of this research study, comparing August to December 2020 E.C. referral data to August to December 2021 data, demonstrates a decline from 75% to 50% of students being referred for E.C. testing who qualify for Free/Reduced lunch (Graham County Schools, 2021a). This is an overall reduction of 25%. The goal of the research study was for E.C. referrals for students living in poverty to decline by 10%. This goal was achieved.

*Goal 6: Student out-of-class discipline data will decrease by 10% for students living in poverty by December 2021.*

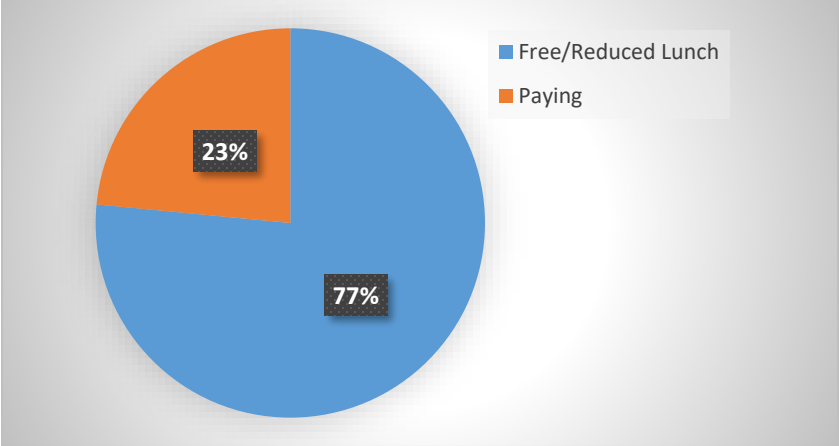
An analysis of all out-of-class student discipline referrals from August to December of 2019 indicated that students at Robbinsville ES were not receiving equitable out-of-class discipline, and the inequities were occurring along the lines of class. Analysis of 2019 discipline data was used instead of 2020 data to avoid any impact resulting from school closures due to the COVID-19 pandemic. School data is clear. In 2019, Robbinsville ES had a free and/or reduced lunch rate of 65.6% (Graham County School System, 2019). However, students who received out-of-class discipline and qualified for free and/or reduced lunch rate was 75.16%, meaning, students living in poverty and qualifying for free and/or reduced lunch were assigned out-of-class discipline at a rate 9.56% higher than their representation in the entire student population. Additionally, in looking at the total number of out-of-class discipline referrals, students qualifying for free and/or reduced lunch comprised 85% of all referrals given from August through December 2019, which is 19.4% higher than their representation in the student population.

Figure 20 below shows the frequency of out-of-class discipline comparing students who receive free/reduced lunch to their paying peers at Robbinsville ES. In analyzing out-of-class discipline data for students attending Robbinsville ES and living in poverty, data demonstrated students living in poverty were assigned out of class discipline both in number of students disciplined and frequency of discipline at a rate greater than their proportionate representation in the school population. Although 63.36% of Robbinsvill ES students qualify for free/reduced lunch, 72.55% of students receiving out-of-class discipline were students qualifying for free/reduced lunch, which is a rate of 9.19% higher than their representation within the student



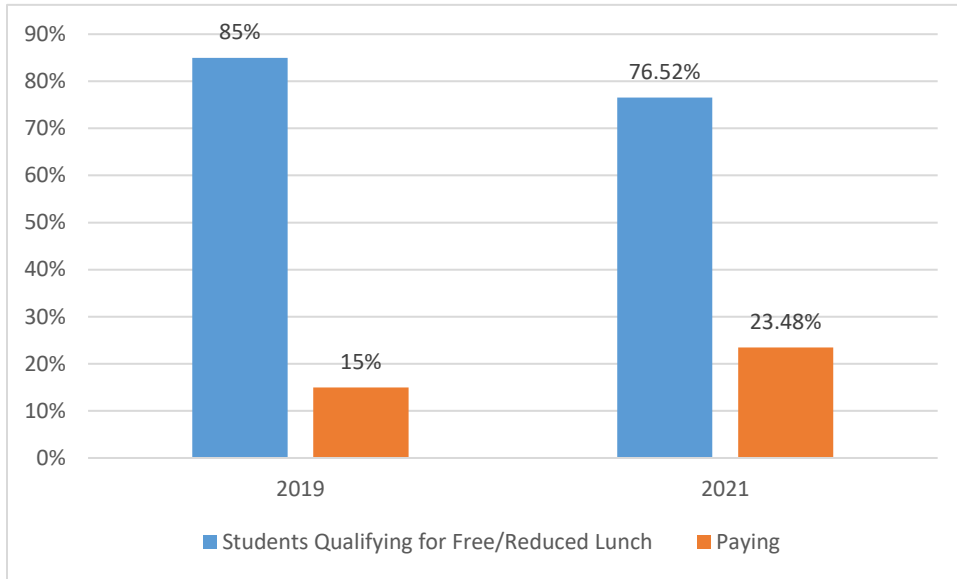
population. Similarly, in analyzing frequency of out-of-class discipline, 76.52% of all out-of-class discipline assigned to students was assigned to students living in poverty (Graham County Schools, 2021b). This is at a rate 13.16% higher than their proportionate share of the student population.

**Figure 20. 2021 Poverty and Frequency of Students Receiving Out-of-Class Discipline**



To determine impact on student discipline based on the 12-week initiative containing the four-session learning module, a comparison of 2019 to 2021 out of class discipline data was performed. The researcher did not use 2020 discipline data due to impact of the COVID-19 pandemic. See Figure 21 below for the 2019 to 2021 comparison data for out-of-class discipline at Robbinsville ES for students living in poverty.

**Figure 21. Comparing Poverty and Frequency of Students Receiving Out-of-Class Discipline**



From August to December 2019 at Robbinsville ES, students living in poverty/qualifying for free/reduced lunch were given out-of class discipline at a rate 9.56% higher than their proportionate representation within the student population. In August to December 2021, the time period encompassing the 12-week research initiative and four-session teacher learning module, students living in poverty/qualifying for free/reduced lunch received out-of-class discipline at a rate of 9.19% higher than their proportionate representation. Although still elevated above their proportionate representation, upon completion of the four-session learning module, Robbinsville ES saw a 0.37% decline in the number of students living in poverty/qualifying for free reduced lunch receiving out-of-class discipline.

An analysis of the frequency of out-of-class discipline, from August to December 2019 at Robbinsville ES, the frequency at which students living in poverty/qualifying for free/reduced lunch were given out-of class discipline was a rate of 19.4% higher than their proportionate

representation within the student population. In August to December 2021, the time period encompassing the 12-week research initiative and four-session teacher learning modules, the frequency at which students living in poverty/qualifying for free/reduced lunch received out-of-class discipline was a rate of 13.16% higher than their proportionate representation. Although still elevated, upon completion of the four-session learning modules, Robbinsville ES saw a 6.24% decline in the frequency of students living in poverty/qualifying for free reduced lunch receiving out-of-class discipline. The goal of this research proposal was to see a 10% decline in students living in poverty receiving out-of-class discipline. Analysis shows only a decline of 6.61%, combining a decline in number of students and frequency of out-of-class discipline given during 2019 and 2021. Therefore, the goal of a 10% decline was not met.

## **Findings**

Our long-term goal for this initiative is to build teacher capacity in understanding their own implicit bias by addressing classism in the school environment and deficit ideology related to students and families living in poverty to increase educational experiences for students living in poverty. Short-term, measurable goals defined for this research project were to increase teacher capacity to identify and recognize assets versus deficit-based ideology within themselves, and increase teacher capacity to implement classroom practices based on assets-based thinking. Additionally, other measurable goals were to reduce E.C. referrals and out-of-class discipline for students living in poverty.

Attendance to each of the four learning sessions exceeded expectations. Not only did the 36 teachers at Robbinsville ES attend at a higher than 75% rate, but additional staff, including teacher assistants, student support staff, technology support staff, and central office staff attended as well. Attendance to the four learning sessions indicates faculty and staff at Robbinsville ES

see information on poverty and trauma as necessary for professional growth. Guskey (2010) highlighted educators are more invested in learning opportunities when opportunities align with self-defined professional growth needs, and when teachers believe new learning is directly related to the students they teach. The high attendance rate serves as an indicator that educators at Robbinsville ES define understanding poverty and trauma as a professional growth need and understand the information directly relates to many students within our student population. Due to high attendance and interest level, the design team discussed offering additional learning opportunities in the future related to poverty and trauma, either in an afterschool setting or during PLC meetings.

Data related to implementing classroom practices to effectively address poverty and trauma was collected via the Teacher Implementation Survey and analyzed to determine effectiveness of this research initiative. Implementation of classroom practices related to poverty and assets-based ideology rose to 92.86% by the completion of the research initiative. With 92.86% of research participants demonstrating a willingness to transfer new learning associated with this learning initiative into classroom practice, information provided in the learning modules was deemed useful and needful by participants, Therefore, it was effective in initiating change.

Changing teachers' individual beliefs and having them understand their own implicit bias is complex. An analysis of pre and post survey results from the Teacher Beliefs & Classroom Practices Survey indicated the largest belief change was associated with Questions 1 and 2 on of the 10 beliefs questions of the twenty question survey. Question 1 stated, "Acknowledging the ways that the school culture is different from my students' home culture will minimize the

likelihood of discipline problems,” and Questions 2 said, “Revising instructional materials to include a better representation of the students’ culture group will foster positive self images.” Participants reporting change in beliefs about students home culture and ensuring classroom materials foster positive self-image for students can have positive impacts on the educational experiences of students living in poverty.

Although a paired samples t-test did not show statistical significance for change in teacher beliefs based on pre and post survey data, qualitative participant responses collected from the Reflective Impact Questionnaire reflect a change in teacher beliefs related to students living in poverty and/or experiencing childhood trauma. Participants reported the following information as important learning related to teacher beliefs: the importance of trauma-informed practices, the importance of assets versus deficits based thinking related to students living in poverty, the importance of maintaining a growth mindset for students, the value of understanding teacher implicit bias and privilege as valuable, and the importance of Maslow’s Hierarchy of Needs as important. Guskey (2010) highlighted a change in teacher beliefs and attitudes is one of the critical components to truly impact and change teacher practice. All these references affect teacher beliefs about the students they teach. Having multiple participants reference those beliefs presented in the learning module as important is an indicator of initiative effectiveness in changing teacher mindsets related to students living in poverty and/or experiencing childhood trauma.

Similarly, classroom practices were analyzed on the Teacher Beliefs & Classroom Practices Survey to determine if new learning presented in the four-session learning module was translated into classroom practice. Question 2, “I implement strategies to minimize the effects of

the mismatch between students' home culture and the school culture" showed the greatest improvement. A paired samples t-test of survey results for the 10 questions related to classroom practices on the twenty question survey were compared, and no statistical significance was demonstrated based on survey results. However, based on teacher reporting on the Teacher Implementation Survey, 92.86% of participants reported implementing learning from the learning modules into their classroom practices by the end of the 12-week research initiative.

Although a paired samples t-test did not show statistical significance for change in teacher classroom practices based on pre and post survey data, qualitative participant responses collected from the Reflective Impact Questionnaire reflect a change in teacher classroom practices related to students living in poverty and/or experiencing childhood trauma. Using pattern coding, it was determined during learning sessions, participants reported the following information as important learning related to classroom practice: the importance of understanding myths versus realities of poverty, having the ability to effectively address those realities in the classroom, the importance of implementing practices to build a strong teacher-student relationship by getting to know their students, information provided on poverty and trauma had challenged them to be reflective and question current classroom practices, and the importance of teaching students about mental health and providing strategies and supports to address issues. Having multiple participants reference those areas related to classroom practices, including being reflective and questioning their current practice, serve as an indicator of initiative effectiveness in changing teacher professional practice related to students living in poverty and/or experiencing childhood trauma.

For future learning opportunities, a retrospective pre and post survey could prove to be more accurate in assessing teacher growth in teacher beliefs and classroom practices than the traditional pre and post survey administered during this four-session learning module. A retrospective pre and post survey would allow teachers to experience the four-session learning module, then complete the survey rating beliefs held prior to and after completion of the module. This may result in a more accurate data collection by eliminating retrospective response bias (Sibthorp, Paisley, Gookin, & Ward, 2007).

Along with measuring impacts to teacher beliefs, classroom practices, and implementation of new knowledge learned during the four-session learning modules, school and district data were also analyzed to determine if student out-of-class discipline and students referred for E.C. testing decreased for students living in poverty and/or experiencing childhood trauma. Prior to this learning initiative, students living in poverty were assigned out-of-class discipline and tested for E.C. services at a rate higher than their proportional representation within the entire student population. Upon completion of the four-session learning module, Robbinsville ES saw a decline in the number of students living in poverty/qualifying for free/reduced lunch being assigned out-of-class discipline and a decline in the frequency of students living in poverty/qualifying for free/reduced lunch receiving out-of-class discipline. Having fewer children living in poverty receive out-of-class discipline is vitally important. Bacher-Hicks, Billings, and Deming (2019) reported results of exclusionary school-discipline demonstrating students assigned multiple school suspensions are “21% more likely to be arrested and 24% more likely to be incarcerated as adults” than students not receiving exclusionary discipline in school, fostering what has been called the “school-to-prison pipeline” (p. 20). Seeing a decline in out-of-class discipline for students living in poverty/and or experiencing

childhood trauma is an indicator of positive impact from this learning initiative that can have lifelong impacts on this marginalized student group.

Similarly, an analysis of the number of students living in poverty and being referred for E.C. testing also demonstrated a decline as a result of this learning initiative. From August to December of 2020, students referred for E.C. testing qualified for free/reduced lunch at a rate higher than the proportional representation of students in the district qualifying for free/reduced lunch. For the purposes of this research study, comparing August to December 2020 E.C. referral data to August to December 2021 data (the time period containing the 12-week learning initiative), demonstrated a decline of students being referred for E.C. testing who qualify for free/reduced lunch. National research shows students living in poverty and experiencing childhood trauma are 50% more likely to be defined as having an educational disability than their peers not living in poverty or experiencing trauma (Blodgett & Lanigan, 2018; Goodman, Miller, and West-Olatunji, 2012). Seeing a reduction in E.C. referrals for this marginalized student group is a strong indicator of the positive impact of this research project.

#### Educational Leadership Lessons Learned

***Lesson 1: Addressing individual beliefs is complex.*** Beliefs to which we have been socialized are deeply ingrained and difficult to change. Problems of inequity associated with beliefs individuals possess allow issues related to poverty and trauma to hide in plain sight within classroom walls. Sensoy and DiAngelo (2017) highlighted how difficult it is for individuals to be aware of the water in which they have always been swimming. Addressing ideology so ingrained in individual thinking that the existence of the bias associated with the thinking goes completely unnoticed because of its implicit nature is challenging. For this reason, as a leader, avoiding this type of challenge is appealing, but tackling the beliefs of teachers



related to the students they teach is a must to see real change and an increase in educational experiences for those marginalized students.

When addressing deeply held, ingrained beliefs and challenging those beliefs, I recommend the following to improve likelihood of impact and success:

- *Give people time and grace.* Changing mindsets when stereotypical beliefs have been accepted over a period of years is difficult for anyone. When addressing beliefs as part of a teacher learning opportunity, it is vital to communicate early on that feelings of shame, guilt, or anger serve as barriers to progress. Theoharis and Brooks (2012) noted when individuals experience emotions when beliefs are challenged, they are tempted to freeze, shut-down, or remove themselves from the group, therefore hindering progress. People must be given grace and feel empowered to express these feelings in a non-judgmental, safe setting when exposed to implicit bias of which they were unaware.
- *Understand that changing beliefs is a lifelong process.* For those brave individuals willing to engage in a process to address their own implicit bias once it is exposed to them, they must have a shared understanding with their principal and other educational colleagues that this work is lifelong. Banaji and Greenwald (2016) highlighted how implicit bias isn't just held by white, middle-class individuals, but by everyone, including those groups to which the biases are related. Awareness of those "mind bugs" and a constant willingness to address them when they pop up in everyday thinking is hard and exhausting work (Banaji & Greenwald, 2016). Therefore, individuals engaged in this work need to give themselves time and grace personally so as to not burn-out and abandon this needed journey.
- *Multiple learning opportunities is a must.* Because of the complexity of changing personal beliefs, no one learning opportunity is enough. Individuals must be presented with regular opportunities to grow in their pursuit of changing beliefs. This process must remain in the forefront of priority for the educational leader. In times of pandemic, high-stakes accountability testing, and other job responsibilities, it is easy to let professional learning opportunities that address stereotypical beliefs fall behind other professional development activities. Therefore, the educational leader must seek out additional learning opportunities for staff and always keep addressing teacher implicit bias as a top priority.
- *Make sure everyone has the opportunity.* Keeping this work in the forefront of priority requires insuring all members of the complex organization of school receive this learning opportunity. Teacher assistants, substitutes, and other non-certified staff hold vital roles within any school building. Their understanding of implicit bias related to students living in poverty and/or experiencing childhood trauma are critical to the climate of assets-based thinking and positive support for these vulnerable students. Ensuring these individuals are also engaged in this important work is a must to ensure improvement in student educational experiences.

*Lesson 2: A shared vision is crucial.* When developing the ideas and information to be delivered associated with this research project, early on I envisioned developing a great learning opportunity and delivering it to my staff. I saw this work as a solo mission. However, as I progressed in my own leadership development, I began to realize the necessity for a shared vision among my design team and my staff. As we began meeting and discussing the project, others had great ideas I hadn't even considered and input about what would make teachers gain the most from the learning experience. Most importantly, sharing my vision for a learning opportunity that was needed at Robbinsville ES, and seeing others agree, embrace the need, and get excited about the content was re-energizing for me personally and professionally. Whereas, had I tried to do everything on my own, I could have just as easily become disillusioned and overwhelmed. This process highlighted several leadership lessons to take away for future endeavors.

- *If it's just my vision it can easily die with me.* As the educational leader of a school, individuals rely on the principal to have the answers, to know what is coming, and to have a plan. Therefore, because principals are asked so many questions daily and are expected to have the answers, it is easy as a leader to get into the habit of feeling as if you should always be the person who holds the answers and the vision. The danger of this scenario is when the principal leaves or changes positions, if the vision is not shared, initiatives and progress held only as the priority of the principal often die or stop when the leader is no longer present. Conversely, a shared vision is bigger than any one person or position within an organization. Therefore, it carries on regardless of internal changes. Reeter (2020) noted, "Without traveling companions your quest loses its zest" (p. 191). Your leadership team and staff are vital to the success of any undertaking within a school. For any initiative to have success and longevity, the vision has to be shared.
- *Let the group hear the perspectives and contributions of multiple people.* Throughout the four-session learning module, participants consistently reported having different presenters from the design team present information and give personal stories associated with presentation content was valuable. Additionally, having multiple people contribute and support the overall vision with personal stories and accounts lent credence to the validity of the need for the learning activity, and it fostered trust among the group. As an educational leader, one must be willing to have an ear for what you don't want to hear and promote an environment of trust among staff to voice struggles and concerns without fear. When teacher leaders share experiences of personal difficulties within the classroom associated with

teacher implicit bias and unintentional faulty practices, others are willing to share, admit difficulties, and develop a shared vision of moving forward to better practices.

*Lesson 3: Be vigilant but flexible.* To progress one must be dedicated to achieve your goals but also be mindful that circumstances arise and changes occur requiring flexibility. Therefore, even though obstacles are going to arise that require a change, vigilance to the end to ensure the goal is reached must also be present. Throughout this research project, multiple obstacles were present including individuals in quarantine and school closures due to COVID-19. Without perseverance, it would have been easy to postpone this improvement initiative. Leaders must realize there will always be obstacles and problems to address. Waiting for a perfect opportunity to start will only result in never starting, therefore never accomplishing anything great. Some ways we were flexible during this research project but remained vigilant to ensure project completion were as follows:

- *Flexibility in setting.* Originally, we planned to offer the four-session learning modules in-person to build a sense of community, foster relationships, and create a shared vision moving forward. However, with COVID-19 community spread, we were forced, for the safety of our participants, to offer the sessions online. Participants communicated an appreciation for the safer online option, and those in quarantine could still attend. To encourage participation and development of a shared vision, we purposefully incorporated wait time into the sessions to give participants ample opportunities to share, and the design team encouraged use of the chat box to share personal stories and insights. These strategies and flexibility allowed the group to still have a sense of community and shared experience even in an online setting, while still permitting the learning opportunity to progress in spite of the spread of COVID-19.
- *Flexibility with time.* Time is a valuable resource for any educator. The design team worked diligently throughout the PDSA cycles to be mindful of meeting length and time requirements associated with the research project. Additionally, participant input indicated a change in meeting time would be beneficial. Therefore, throughout the 12-week project, times for meetings were scheduled based on a “best-time” defined by participants. Participant voice allowed for the researcher and design team to show respect and value for teachers’ time while still allowing time for the sessions and data collection and analysis.
- *Remind, remind, remind.* Prior to the beginning of this research project, the researcher explained project content and tentative dates and times for learning sessions well in advance of the start date. Throughout the project, reminder emails and intercom

announcements were made to remind individuals of meeting times and survey completion dates. This system of multiple reminders was well-received and increased participation and timely data collection. Since reminders were viewed as a courtesy, they were appreciated and yielded high participation rates throughout the duration of the project.

## **Leadership and Equity for Social Justice**

Historically, students living in poverty and/or experiencing childhood trauma have suboptimal educational experiences. Nationally, these groups of marginalized students receive discipline, are defined as having a learning disability, or have school attendance issues at a disproportionate rate compared to their middle-class peers (Blodgett, & Lanigan, 2018; Ladson-Billings, 2006). Additionally, these students are exposed to teacher implicit bias and inequitable classroom practices leading to diminished educational experiences compared to their middle-class peers who are not affected by disparate teacher beliefs or discriminatory practices (hooks, 2014). Therefore, educators must be presented with learning opportunities exposing these beliefs and practices in order to reduce this inequitable “receptment gap” in education for this marginalized student group (Chambers, 2009).

This research initiative is a starting point for this work at Robbinsville ES. Presenting teachers with district and school data exposing teacher implicit bias in discipline practices and the number of students referred for E.C. testing was powerful in bringing attention to the issue. Additionally, highlighting community poverty data assisted teachers in recognizing the level of poverty in our community, the high numbers of students experiencing poverty, and the effects of trauma associated with the exposure to poverty. The use of local data was a successful way to introduce inequitable issues to participants.

In addition to using local data to assist participants in seeing a need for the opportunity to learn about poverty and trauma, the design team wanted to ensure teachers were given specific

ways to address poverty and trauma within their professional practice in the classroom. Strategies and effective practices associated with asset-based ideology, culturally responsive and trauma-informed practices were highlighted for educators. Professional learning must translate into classroom practice to be effective. Data collected about teacher implementation demonstrated 92.86% of participants had implemented classroom practices associated with their new learning on poverty and trauma.

Practicing social justice and equity in education is a lifelong pursuit for educators who are willing to address implicit bias, deficit ideology, racism, classism, trauma, and the myriad of inequities that are inherent in our schools. To support educators in this endeavor, the design team found it necessary to develop a community of honesty and trust, understanding a change in beliefs is difficult and bias is ingrained and difficult to address. No one research project can rectify this problem. Multiple opportunities for growth must be available. This research project is the beginning of this work in Graham County Schools.

### **Limitations**

One limitation of this study is its small sample size. Although a small study, there is not a lot of research on social justice and inequities conducted in rural schools. Studies in urban districts are much more common. Research addressing teacher implicit bias in either rural or urban settings is limited. Furthermore, research that addresses teacher implicit bias related to students living in poverty and/or experiencing childhood trauma in a rural setting is scant. Therefore, although small, this study adds to the current research base.

Another limitation of this study was related to time constraints. Analysis of long-term testing data, such as end-of-grade (EOG) testing data was not possible. This data will be

reviewed in the future to assess progress for students living in poverty over time, and adjustments will be made to future professional learning for teachers based on that data.

A third limitation pertains to the fact that data was not collected to determine why individual students were referred for exceptional children testing; only the total numbers of students referred were analyzed. Therefore, determining the reason for the increase in students referred is outside the scope of this research study. However, referral data should be analyzed by the district to determine why referrals increased from 2019 to 2020 to 2021 and if it was perhaps due to learning loss as a result of the COVID-19 pandemic.

The COVID-19 pandemic required this four-session learning module be offered virtually. The design team purposefully incorporated guiding questions and wait-time to increase participant input in each session. However, in a virtual setting, participants were unable to have intimate conversations with peers in a small setting. Participants who were uncomfortable adding to the chat box or sharing with the entire group, might have been more willing to share in a smaller group in a face-to-face meeting. Overall participation could have been increased if a face-to-face learning opportunity were offered. This should be considered for future learning sessions.

A final limitation of this research study to note is the use of unique identifiers assigned to individual research participants to ensure anonymity. Assigning unique identifiers resulted in the reduction of quantitative significance. The design team made the decision to use unique identifiers to ensure the validity and reliability of participant responses because the researcher was also the principal and direct supervisor of the research participants. The design team also determined the use of unique identifiers could also increase teacher comfort level, increasing the number of overall participants willing to participate in the study.

## **Conclusion**

Students living in poverty with class disparities compared to their teachers, as well as those that experience childhood trauma in both society and within the school environment itself, are at-risk for suboptimal educational performance because of a lack of teacher capacity to address these issues. The goal of this research initiative was to address teacher capacity in understanding their own implicit bias by addressing classism in the school environment, and deficit ideology related to students and families living in poverty to increase educational experiences for students living in poverty. Teacher implicit bias left unacknowledged will continue to manifest in classrooms and potentially retraumatize students already facing multiple challenges.

By providing learning opportunities to educate teachers on their own implicit bias, and the effects it has on students experiencing trauma and/or living in poverty, teachers can begin to see inequities within their teaching practices and with the system as it currently exists. Becoming a culturally sensitive and responsive educator can transform the educational experience for both students and teachers. The realization of system-wide problems and their own biases could change the lens of educators and positively impact experiences for vulnerable students.

## References

- Adams, E. L., Smith, D., Caccavale, L. J., & Bean, M. K. (2021). Parents are stressed! Patterns of parent stress across COVID-19. *Frontiers in Psychiatry, 12*, 300.
- Bacher-Hicks, A., Billings, S. B., & Deming, D. J. (2019). *The school to prison pipeline: Long-run impacts of school suspensions on adult crime* (No. w26257). National Bureau of Economic Research.
- Banaji, M. R., & Greenwald, A. G. (2016). *Blindspot: Hidden biases of good people*. Bantam.
- Blitz, L. V., Yull, D., & Clauhs, M. (2020). Bringing sanctuary to school: Assessing school climate as a foundation for culturally responsive trauma-informed approaches for urban schools. *Urban Education, 55*(1), 95-124.
- Blodgett, C., & Lanigan, J.D. (2018). The association between adverse childhood experience (ACE) and school success in elementary school children. *School Psychology Quarterly, 33*(1), 137-146.
- Bonilla-Silva, E. (1997). Rethinking racism: Toward a structural interpretation. *American Sociological Review, 62*(3), 465-480.
- Bowles, S., & Gintis, H. (2011). *Schooling in capitalist America: Educational reform and the contradictions of economic life*. Haymarket Books.
- Brayboy, B. M. J. (2005). Toward a tribal critical race theory in education. *The Urban Review, 37*(5), 425-446.
- Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Harvard Education Press.
- Carey, R. L., Yee, L. S., & DeMatthews, D. (2018, January). Power, penalty, and critical praxis: Employing intersectionality in educator practices to achieve school equity. In *The*



- Educational Forum*. 82(1), 111-130. Routledge.
- Chambers, T. V. (2009). The "receptment gap": School tracking policies and the fallacy of the "achievement gap". *The Journal of Negro Education*, 78(4), 417-431.
- Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2016). Treating trauma and traumatic grief in children and adolescents. Guilford Publications.
- Craig, S. E. (2015). *Trauma-sensitive schools: Learning communities transforming children's lives, K 5*. Teachers College Press.
- Craig, S. E. (2016). The trauma-sensitive teacher. *Educational Leadership*, 74(1), 28-32.
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*. 1989,139-158.
- Creswell, J.W., & Guetterman, T.C. (2019). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. Pearson Education, Inc.
- Crosby, S. D., Howell, P., & Thomas, S. (2018). Social justice education through trauma-informed teaching. *Middle School Journal*, 49(4), 15-23.
- Delgado, R., & Stefancic, J. (2017). *Critical race theory: An introduction*. NYU Press.
- Diamond, J. B. (2013). The resource and opportunity gap: The continued significance of race for African American student outcomes. *Contesting the Myth of a Post-Racial Era: The Continued Significance of Race in Education*. Peter Lang Publishers.
- Ellis, W. R., & Dietz, W. H. (2017). A new framework for addressing adverse childhood and community experiences: The building community resilience model. *Academic Pediatrics*, 17(7), S86-S93.
- explicit. 2021. In *Merriam-Webster.com*. Retrieved February, 11, 2021, from

<https://www.merriam-webster.com/dictionary/explicit>

- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258.
- Fenning, P., & Jenkins, K. (2018). Racial and ethnic disparities in exclusionary school discipline: Implications for administrators leading discipline reform efforts. *NASSP Bulletin*, 102(4), 291-302.
- Gaffney, C. (2019, Summer). When schools cause trauma. *Teaching Tolerance*, (62). Retrieved from <https://www.tolerance.org/magazine/summer-2019/when-schools-cause-trauma>
- Gewertz, C. (2021). Teachers' Mental Health Has Suffered in the Pandemic. Here's How Districts Can Help. *Education Week*. <https://www.edweek.org/leadership/teachers-mentalhealth-has-suffered-in-the-pandemic-heres-how-districts-can-help/2021/05>.
- Goodman, R. D., Miller, M. D., & West-Olatunji, C. A. (2011). Traumatic stress, socioeconomic status, and academic achievement among primary school students. *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(3), 252-259.
- Gorski, P. C. (2018). *Reaching and teaching students in poverty: Strategies for erasing the opportunity gap*. Teachers College Press.
- Gorski, P. C. (2008). The Myth of the "Culture of Poverty". *Educational Leadership*, 65(7), 32-36.
- Gorski, P. C. (2011). Unlearning deficit ideology and the scornful gaze: Thoughts on authenticating the class discourse in education. *Counterpoints*, 402, 152-173.
- Graham County School System. (2019). [Unpublished raw data on meals plus student eligibility]

demographics from child nutrition information system].

Graham County School System. (2020a). [Unpublished raw data on exceptional children eligibility from students with disabilities information system].

Graham County School System. (2020b). [Unpublished raw data from linq human resources information system].

Graham County School System. (2020c). [Unpublished raw data on meals plus student eligibility demographics from child nutrition information system].

Graham County School System. (2021a). [Unpublished raw data on exceptional children eligibility from students with disabilities information system].

Graham County School System. (2021b). [Unpublished raw data on meals plus student eligibility demographics from child nutrition information system].

Guskey, T. R. (2010). Professional development and teacher change. *Teachers and Teaching: Theory and Practice*, 8(3), 381-391.

Harris, A., & Leonardo, Z. (2018). Intersectionality, race-gender subordination, and education. *Review of Research in Education*, 42(1), 1-27. doi:10.3102/0091732X18759071

hooks, B. (2014). *Teaching to transgress*. Routledge.

implicit. 2021. In *Merriam-Webster.com*. Retrieved February, 11, 2021, from

<https://www.merriam-webster.com/dictionary/implicit>

Individuals with Disabilities in Education Act of 1990, Pub. L. 101-146, 104 Stat. 1151, codified as amended at 20 U.S.C. 238.

Isaacs, D. S., & Young, A. R. (2019). Missing and Murdered Indigenous Women (MMIW): Bringing Awareness through the Power of Student Activism. *Journal of Indigenous Research*, 7(1), 2.

- Kim, L., Oxley, L., & Asbury, K. (2021). "My brain feels like a browser with 100 tabs open": A longitudinal study of teachers' mental health and wellbeing during the COVID-19 pandemic in 2020.
- Ladson-Billings, G. (2006). From the achievement gap to the education debt: Understanding achievement in US schools. *Educational Researcher*, 35(7), 3-12.
- Ladson-Billings, G. (2007). Pushing past the achievement gap: An essay on the language of deficit. *The Journal of Negro Education*, 316-323.
- Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost, L. P. (2009). *The improvement guide: a practical approach to enhancing organizational performance*. John Wiley & Sons.
- Lareau, A. (1987). Social class differences in family-school relationships: The importance of cultural capital. *Sociology of Education*, 60(2), 73-85.
- Larkin, H., Shields, J. J., & Anda, R. F. (2012). The health and social consequences of adverse childhood experiences (ACE) across the lifespan: An introduction to prevention and intervention in the community. *Journal of Prevention & Intervention in the Community*, 40(4), 263-270.
- Lipsitz, G. (2018). The possessive investment in whiteness. ProQuest Ebook Central, *The Possessive Investment in Whiteness: How White People Profit from Identity Politics* (pp. 1-23). Temple University Press.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370.
- Mijs, J. J. (2016). The unfulfillable promise of meritocracy: Three lessons and their implications for justice in education. *Social Justice Research*, 29(1), 14-34.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods*

sourcebook.

National Center for Educational Statistics (2020). Characteristics of public school teachers.

[https://nces.ed.gov/programs/coe/pdf/coe\\_clr.pdf](https://nces.ed.gov/programs/coe/pdf/coe_clr.pdf)

National Center for Educational Statistics (2017). Teacher professional development: By selected teacher and school characteristics 2011-12.

<https://nces.ed.gov/pubs2017/2017200.pdf>

North Carolina School Report Card System (2019). Graham County Schools. Retrieved from

<https://ncreportcards.ondemand.sas.com/src/district?district=380LEA&year=2019&lng=en>

North Carolina School Report Card System (2014). Graham County Schools. Retrieved from

<https://ncreportcards.ondemand.sas.com/src/district?district=380LEA&year=2014&lng=en>

Powell, R., Cantrell, S. C., Malo-Juvera, V., & Correll, P. (2016). Operationalizing culturally responsive instruction: Preliminary findings of CRIOP research. *Teachers College Record*, 118(1), 1-46.

Public School Forum of North Carolina & the North Carolina Center for After School Programs (2013, Dec. 05). Road Map of Need 2013. Retrieved from

<https://www.ncforum.org/2013-roadmap-of-need-is-here/>

Public School Forum of North Carolina & the North Carolina Center for After School Programs (2019, April 24). Road Map of Need 2019. Retrieved from

<https://www.ncforum.org/2019-roadmap-of-need/>

Reeter, J. D. (2020). *Do Life Differently: A Strategic Path Toward Extraordinary*. Hachette UK.

Sacks, V., Murphey, D., & Moore, K. (2014). *Adverse childhood experiences: National and*

- state-level prevalence (Research brief# 2014-28). Retrieved from Child Trends website:  
[http://www.childtrends.org/wp-content/uploads/2014/07/Brief-adverse-childhoodexperiences\\_FINAL.pdf](http://www.childtrends.org/wp-content/uploads/2014/07/Brief-adverse-childhoodexperiences_FINAL.pdf).
- Saldaña, J. (2016). *The coding manual for qualitative researchers*. Sage.
- Schlemmer, L. (2021). Teachers Are Taking On More Than Ever As NC Schools Face Severe Staffing Shortages. *North Carolina Public Radio*. <https://www.wunc.org/education/2021-09-30/teachers-north-carolina-schools-severe-staffing-shortages-education-k12-covid>
- Sensoy, O., & DiAngelo, R. (2017). *Is everyone really equal?: An introduction to key concepts in social justice education*. Teachers College Press.
- Sibthorp, J., Paisley, K., Gookin, J., & Ward, P. (2007). Addressing response-shift bias: Retrospective pretests in recreation research and evaluation. *Journal of Leisure Research*, 39(2), 295-315.
- Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. *Teaching and Teacher Education*, 23(7), 1086-1101.
- Souers, K., & Hall, P. (2016). *Fostering resilient learners: Strategies for creating a trauma-sensitive classroom*. Association for Supervision and Curriculum Development.
- Smith-Morris, C. (2020, March 06). Addressing the Epidemic of Missing & Murdered Indigenous Women and Girls. Retrieved from <https://www.culturalsurvival.org/news/addressing-epidemic-missing-murdered-indigenous-women-and-girls>
- Tanner, D. (2011). *Using statistics to make educational decisions*. Sage.
- Teaching and Learning International Survey (2018). TALIS 2018 Results. [file:///C:/Users/jhooper/OneDrive%20-](file:///C:/Users/jhooper/OneDrive%20)

%20Graham%20County%20Schools/Disquisition%20with%20Chair/TALIS2018\_compiled.pdf

Theoharis, G., & Brooks, J. S. (Eds.). (2012). *What every principal needs to know to create equitable and excellent schools*. Teachers College Press.

Theoharis, G., & Scanlan, M. (Eds.). (2020). *Leadership for increasingly diverse schools*. Routledge.

United States Census Bureau (2019, July 1). Quick facts: Graham County, North Carolina.

<https://www.census.gov/quickfacts/fact/table/grahamcountynorthcarolina/PST045219>

Van Duzor, A. G. (2011). Capitalizing on teacher expertise: Motivations for contemplating transfer from professional development to the classroom. *Journal of Science Education and Technology*, 20(4), 363-374. doi: 10.1007/s10956-010-9258-z

## Appendix A

### Road Map of Need 2013

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HEALTH DATA			
	74.10 per 1000	43.80 per 1000	+30.3 per 1000
Teen Pregnancy Rate			
Child Food Insecurity	30.40%	27.30%	+3.1%
Child Obesity	13.10%	15.70%	-2.6%
YOUTH BEHAVIOR & SAFETY			
Children in D.S.S. Custody	17.48 per 1000	5.72 per 1000	+306% times
Child Abuse & Neglect Rate	22.78 per 1000	10.96 per 1000	+208% times
EDUCATION DATA			
Schools That Met	33.30%	73.70%	- 40.4%
Or Exceed Growth	93.60%	80.40%	+13.2%
	69.70%	68.80%	+0.9%
Graduation Rate	76.70%	78.70%	-2%
	17.20	18.20	-1
3rd Grade Reading Proficiency			
Algebra I Proficiency			
ACT Composite			
ECONOMIC DEVELOPMENT DATA			
Median Household Income	\$32,255	\$43,916	-\$11,661
Percentage of Children Living in Poverty	35.40%	25.40%	+10%
<b>Unemployment Rate</b>	<b>16.80%</b>	<b>9.50%</b>	<b>+7.3%</b>
	<b>12.10%</b>	<b>26.50%</b>	<b>-14.44%</b>
<b>Adults with a Bachelor's Degree</b>			



## Appendix B

### Road Map of Need 2019

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HEALTH DATA			
Teen Pregnancy Rate	41.30 per 1000	30.50 per 1000	+10.8 per 1000
Child Food Insecurity	24.60 %	20.90%	+3.7%
Child Obesity	19.70%	16.10%	+3.6%
YOUTH BEHAVIOR & SAFETY			
Children in D.S.S. Custody	20.50 per 1000	6.99 per 1000	+293% times
Child Abuse & Neglect Rate	22.16 per 1000	9.81 per 1000	+226% times
EDUCATION DATA			
Schools That Met Or Exceed Growth	33.30%	73.70%	- 40.4%
Graduation Rate	93.20%	86.50%	+6.7%
	61.80%	57.80%	+4%
	63.30%	64.30%	-1%
3rd Grade Reading Proficiency	18.10	18.60	-0.50
NC Math 1 Proficiency			
ACT Composite			
ECONOMIC DEVELOPMENT DATA			
Median Household Income	\$37,748	\$52,757	-\$15,009
Percentage of Children Living in Poverty	28%	21%	+7%
<b>Unemployment Rate</b>	<b>6.80%</b>	<b>4.50%</b>	<b>+2.3%</b>
<b>Adults with a Bachelor's Degree</b>	<b>14.20%</b>	<b>29.90%</b>	<b>-15.7%</b>

Appendix C

K-1 Think Sheet

# .....'s Think Sheet

## I chose to



not keep my hands  
to myself



talk and interrupt  
others



run in the classroom



play in my seat



not stay in my seat



be an unkind friend



not follow  
directions



play unsafe on the  
playground

## Next time, a better choice would be to



keep my hands to  
myself



be a good  
listener



walk




sit nicely and focus  
on my work



stay in my seat



be a nice friend



follow directions  
quickly

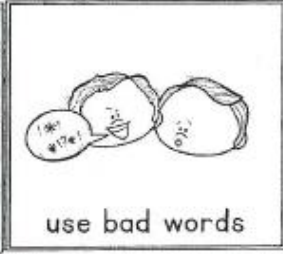


play safely

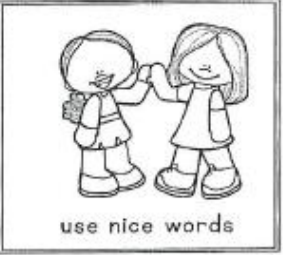
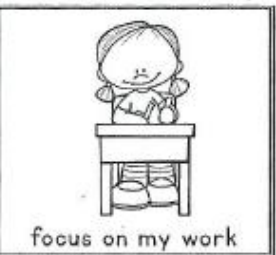
Student's Signature: \_\_\_\_\_

# .....'s Think Sheet

I chose to



Next time, a better choice would be to



Student's Signature: \_\_\_\_\_

**Appendix D**

**Grade 2-6 Think Sheet**

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Person Making Referral: \_\_\_\_\_

Reason For Referral:

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Classroom/Teacher Interventions: (First 3 Are Required in Each Incident)

- Verbal Redirection Using Calm Voice & Requiring Eye Contact
- Reteaching Expectations One-on-One
- Student Acknowledgement of Inappropriate Behavior
- Consequence/Reward Review
- Remove Student to Isolated Area in the Room
- Preferential Seating
- TLIM Habit Review/Knight Code Review
- Praise Desired Behaviors
- Call Home/Parent Conference
- Behavior Note Home

\_\_\_ Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Classroom/Teacher Administered Consequences:

- \_\_\_ Classroom Time Out/Isolation
- \_\_\_ Clip Down
- \_\_\_ Silent Lunch
- \_\_\_ Writing Assignment
- \_\_\_ Extra Homework Assignment
- \_\_\_ Apology Letter
- \_\_\_ Clean Up Appropriate Area
- \_\_\_ After-School Detention
- \_\_\_ Proximity to Teacher In and Out of Classroom
- \_\_\_ Other: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Student Support Center/Behavioral Specialist Interventions:

Observed Behaviors Upon Entrance to SSC:

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What Did I Do? How Did I Break the Knight's Code?

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Why Did I Do It? What Was I Thinking?

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How Did It Affect Me And Others?

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What Should I Do Next Time?

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Observed Behaviors Upon Exit of SSC:

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Called Home  Left Message  Spoke With \_\_\_\_\_ Time: \_\_\_\_\_

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Student Signature

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Behavioral Specialist Signatures

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Date

## Appendix E

### Teacher Beliefs & Classroom Practices Survey

Rectangular Snip

Enter Your Assigned Number Below

How many years have you been in education?

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-25 years
- 26-30 years
- 30+ years

With which socioeconomic class do you identify personally?

- Lower Class
- Lower Middle Class
- Middle Class
- Upper Middle Class
- Upper Class/Wealthy

With which socioeconomic class do you believe most students you teach identify?

- Lower Class
- Lower Middle Class
- Middle Class
- Upper Middle Class
- Upper Class/Wealthy



Mark each statement to the degree you believe the statement is true.

	Not At All 1	To A Small Degree 2	To A Moderate Degree 3	To A Considerable Degree 4	To A Great Degree 5
Acknowledging the ways that the school culture is different from my students' home culture will minimize the likelihood of discipline problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Revising instructional materials to include a better representation of the students' cultural group will foster positive self-images.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When students see themselves in the pictures that are displayed in the classroom, they develop a positive self-identity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see the adults in the school demonstrating an understanding of how sociocultural factors related to diversity could influence relationships with students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student attendance will increase when a personal relationship between the teacher and students has been developed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see the adults in the school address behavioral disruptions in a way that respects the dignity of the student.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see the adults in the school being aware of how their personal history and life experiences influence classroom decisions about instruction or teaching style.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see the adults in the school demonstrating an understanding of the cultural qualities of groups other than their own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I see adults in the school demonstrating an understanding of how subtle forms of racism, including unintentional cultural bias, may influence how students interact with them.

I see adults in the school demonstrating an understanding of how subtle forms of racism, including unintentional cultural bias, may influence how parents interact with them.

Mark each statement to the degree you implement these practices in your classroom.

	Never 1	About Once per Nine Weeks 2	About Once a Month 3	About Twice a Month 4	Weekly 5
I learn and affirm the students' home culture and integrate those assets into instruction and/or other teachable moments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I implement strategies to minimize the effects of the mismatch between my students' home culture and the school culture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design a class environment using displays that reflects a variety of cultures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I identify ways how students communicate at home may differ from school norms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I build a sense of trust in my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I identify specific behaviors or qualities when giving praise rather than only global or general acclaim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I design instruction that matches my students' developmental needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage students to bring meaningful objects from home or other materials to class, discussing what they symbolize, and connecting them to the lesson.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I create routines and rituals that celebrate students' success with awards and recognition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I structure parent-teacher conferences so that the meeting is not intimidating for parents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## Appendix F

### Reflective Impact Questionnaire

List three major ideas learned today and rank them in order of importance.

1.

2.

3.

What one thing challenged or changed your thinking or perspective?


What mode of delivering content or structure of the learning session today did you like best?

What mode of delivering content or structure of the learning session today should be changed to make the session better next time?

Other comments:

## Appendix G

### Teacher Implementation Survey

 Rectangular Snip

As an educator, have you used what you have learned about implicit bias and classism in your professional practice since our last session?

Yes

No

If yes, what did you do?

If no, why not?

Time/Too Busy

Out Sick

No Opportunity Presented Itself

Unsure About How to Address the Issue with Student(s)

Chose to Ignore the Situation

My Lesson Plans Were Already Written

Other