

Building Teacher Capacity for Educating Students Living in Poverty

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ABSTRACT

Students living in poverty and/or experiencing childhood trauma consistently report suboptimal educational results nationwide. The primary focus of this improvement initiative was to build teacher capacity to understand their implicit bias and move from deficit to asset-based thinking in relation to students and families living in poverty. Employing Improvement Science Methodology at one rural elementary school, a 12-week, four-session professional learning module was delivered containing the following topics: teacher implicit bias and privilege; school discipline and special education data demonstrating disproportionate representation of students living in poverty; asset versus deficit thinking, Adverse Childhood Experiences and their impacts on education; and culturally responsive classroom practices. Findings demonstrated 13 out of 14 participants (92.86%) implemented new learning into classroom teaching practices yielding a 25% decline in referrals for special education testing for students living in poverty, and a 6.61% decline in out-of-class discipline for students living in poverty.

KEYWORDS

improvement science, asset-based thinking, implicit bias, poverty, teacher-student differential

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 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 because of teacher implicit bias, they have limited capacity to support students experiencing classism or living in poverty, resulting in suboptimal educational performance (Ladson-Billings, 2007). As our educational system currently exists, it is tailored to White students in middle and upper socioeconomic classes (Bowles & Gintis, 2011). Similarly, as of 2018, 79% of US educators were White, 76% were female, and the median salary range was \$57,900, situating teachers in the middle class (National Center for Educational Statistics, 2020). Any individual student, school or community that falls outside that category in race or class is set up for a harder road to success. 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.

Because of oppression and lack of resources due to classism, individuals affected by it can suffer related trauma (Blodgett & Lanigan, 2018; Goodman et al., 2012). Cohen et al. (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. Individuals can identify issues such as hunger and homelessness and easily understand how trauma can result. However, 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. Children living in poverty and having suboptimal educational experiences is a complex issue with



This journal is supported by the Carnegie Project on the Education Doctorate: A Knowledge Forum on the EdD (CPED) cpedinitiative.org

impactinged.pitt.edu Vol.10 No.2 (2025) ISSN 2472-5889 (online) DOI 10.5195/ie.2025.423

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multiple contributing causes resulting in surviving through traumatic experiences. To take an in-depth look at this issue, one must consider the external factors contributing to the struggle (societal and environmental) and internal factors (issues within schools). Examining these areas brings clarity to the complexity of the problem and how inequities continue to be reproduced in U.S. public schools.

POSITIONALITY OF THE SCHOLAR PRACTITIONER

At the time of this study, the lead author was the principal of Bradford Elementary School (BES, pseudonym) and the scholar practitioner of the change initiative outlined in this research study. We present the scholar practitioner's positionality statement in first person language.

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 Frederick County Schools (FCS, pseudonym). Not only am I, myself, a product of FCS, I am also a child who lived in poverty in this same community. Therefore, I have a similar social identity to many students in my school. 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 in my doctoral program, 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 faculty at the school I lead. I now understand that as a White, middle-class, female, I have implicit biases. I understand how these biases, although unintentional, can have negative impacts on student educational experiences and overall performance. I am compelled to provide training to the educators at BES so they may also see their own biases and gain a better understanding of the students that enter their classrooms every school day.

My Dissertation in Practice (DiP) aligns with vision of The Carnegie Project on the Education Doctorate's (CPED) vision in which "...equity-minded educational professionals lead lasting and positive change..." (CPED, n.d., para. 2). The DiP is a capstone project, aligned with CPED's guiding principles which includes integrating theory and practice through systematic inquiry as the scholar practitioner both constructs and applies knowledge. In this DiP, I address a complex, equity-centered issue within my local context to bring about positive change (CPED, 2022) as I answer the call for trauma-informed school leadership (Greig et al., 2017; Stokes & Brunzell, 2020).

REVIEW OF LITERATURE

To begin to understand the problem, it must be made clear that trauma and poverty are prevalent among children in our society. Sacks et al. (2014) reported 46% of children in the U.S. experience at least one Adverse Childhood Experience (ACE). 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 et al. (2014) also reported economic hardship is the most common ACE reported nationally. Souers and Hall (2016) found "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).

Not only is social class an indicator for advanced risk of trauma, but so is race (Larkin et al., 2012). National data shows children of color live in poverty at a much higher rate than White children (National Center for Educational Statistics, 2019). Poverty rates for Black children were 39%, American Indian, 36%, Latinx 33%, Pacific Islander 25%, and multiracial 22%, while White children in poverty were reported at only 13% (Carey et al., 2018, p. 114). In a review of ACEs literature performed by Larkin et al. (2012), several groups of at-risk youth were defined as being high risk for ACE exposure including "male sexual abuse survivors, children of teenage parents, and black adolescents exposed to community violence" (p. 268). Ellis and Dietz (2017) explained 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" (p. 87). These findings demonstrate that poverty and trauma can go hand-in-hand.

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). In other words, the more exposure to childhood trauma one experiences, the more likely they are to suffer from health risks and diseases as adults; childhood trauma has lifelong harmful implications (Souers & Hall, 2016). 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 (Felitti et al., 1998).

Crosby et al. (2018) highlighted how educators can unintentionally make judgments about students and their families when they do not understand the effects of trauma in children. Educators may place blame on students and families 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 (Chambers, 2009; Gorski, 2011; Ladson-Billings, 2006; Lareau, 1987). Gaffney (2019) underscored this thinking releases the educator from self-evaluating teaching practices and allows the educator to remain oblivious to implicit bias that perpetuates suboptimal educational experiences for vulnerable students.

Even the most well-meaning educator can contribute inadequate support for students living in poverty (Gaffney, 2019). hooks (2014) noted teacher implicit bias toward students based on race and class can negatively affect their education. Although responses may be 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. Ladson-Billings (1995) highlighted academic success for African-American students often came at the expense of their cultural and psychosocial wellbeing noting that even academic success for some marginalized groups can still cause additional trauma within the school setting.

Trauma-sensitive and trauma-informed schools are becoming more prevalent. Educators are becoming more aware of the effects of trauma on the brain and are being presented with practices to address these issues in the classroom (Thomas et al., 2019). Craig (2015) identified the effects of trauma on neurological development and the consequences these effects have on education for children,



outlining practices for teachers and administrators in addressing these in the school environment. Practices such as well-established routines, calming and focusing strategies, and teacher professional learning on Maslow's Hierarchy of Needs prepare educators to address these issues in the classroom (Craig, 2016). 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 and releases educators from responsibility for student failure (Gorski, 2011; Mijs, 2016).

Similarly, researchers document common myths about people living in poverty, which include they have a weak work ethic, are unmotivated, and have no value of education (Davis & Museus, 2019; Gorski, 2008; Valencia, 1997). Gorski (2011) 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 engaging with the school 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," (Gorski, 2011, p. 158) students and their families experiencing classism are often viewed as flawed by educators.

hooks (2014) highlighted teachers are unprepared to be culturally sensitive and responsive to students who experience classism and racism. With a median range salary reported at \$57,900, the American teaching force is predominantly made up of White, female, middle class teachers (National Center for Educational Statistics, 2020). Being educated and living a middle class lifestyle leaves many educators unable to understand and connect to children living in poverty on a personal level. Additionally, teacher preparatory programs and professional learning opportunities in schools are not tailored toward educating teachers on issues of racism, classism, or teacher implicit bias (hooks, 2014; Howard & Rodriguez-Scheel, 2016).

The harm caused by classism not only affects a child's overall health and safety but can also have an adverse effect on a student's education experience and performance (Gorski, 2018; Sacks et al., 2014). 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 rates of academic failure, attendance problems, and school behavioral problems among elementary students increase as ACE exposure increases. They also found a positive 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. In comparing ACEs with poverty level among primary school students, Goodman et al. (2012) concluded, "the percentage of students who have trauma decreases as student socioeconomic status increases" (p. 255).

According to a national longitudinal survey conducted by the National Center for Education Statistics (2017), students experiencing trauma were given an individualized education plan (IEP) at a rate "more than double that of their peers not experiencing trauma" (Goodman et al., 2012, p. 256). Students experiencing trauma are 50% more likely to be labeled with an educational disability than students without trauma (Souers & Hall, 2016). Additionally, schools identify African-American students with educational disabilities at a rate much higher than White students, and African-American out-of-school suspension rates far surpass White rates (Crosby et al., 2018).

Souers and Hall (2016) found students with increased ACE exposures struggle in school with attendance, behavior, coursework, and overall health. Struggling in any one of these areas can cause academic challenges, but struggles in all listed areas drastically increase the likelihood of suboptimal educational performance based on ACE experiences. Souers and Hall (2016) reported the following increases in students reporting any ACE exposure: "students reporting only one ACE had an increased likelihood of struggle in all areas, demonstrating any exposure to adverse childhood experiences has a significant impact on school performance; 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" (p. 21). Goodman et al. (2012) found students experiencing ACEs are more likely to be identified as having an educational disability. These data highlight the need to increase teacher capacity to address issues related to students experiencing trauma.

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 (Guskey, 2010). Teachers can mitigate trauma-related behaviors through informed practices (Maynard et al., 2019; Stokes & Brunzell, 2020) by implementing strategies presented by Craig (2015, 2016) such as making their classrooms calm and predictable by posting routines on the wall, lowering lights and playing music, and allowing purposeful movement such as stretching and breathing throughout lessons. Teachers can help students internally reflect and teach students how to use their minds to choose what to focus on to maintain focus and attention (Craig, 2015, 2016). These strategies help students maintain predictability, begin to understand self-regulation, and increase student achievement (Maynard et al., 2019; Stokes & Brunzell, 2020).

In addition to calm and predictable spaces, marginalized student groups must also feel valued culturally in their classrooms through culturally relevant pedagogy (Gay, 2018; Ladson-Billings, 1995). Teaching practices that purposefully and systematically include student cultures as a part of classroom learning and presented by the teacher as "authorized or official knowledge" (Ladson-Billings, 1995, p. 483). Critical components of culturally relevant pedagogy include: "students must experience academic success, develop and maintain cultural competence, and develop a critical consciousness through which they challenge the status quo of the current social order" (Ladson-Billings, 1995, p. 160). Developing educators to design classrooms with cultural responsiveness in mind will ensure schools are not re-traumatizing students and all students achieve academic success.

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 the behavior is due to trauma rather than misbehavior occurring out of defiance (Craig, 2015). Such knowledge increases the teacher's likelihood of responding appropriately, maintaining a positive relationship with the student, and reducing the possibility of re-traumatization (Gaffney, 2019; Ŧ

Stokes & Brunzell, 2020). Additionally, by staying calm, the teacher reinforces to students that they are neither frightened nor surprised by strong feelings and know what to do to bring those feelings back under control, maintaining stability and calm in the classroom (Craig, 2016).

Being culturally sensitive and responsive requires the educator to be self-aware when interacting with students. Souers and Hall (2016) argued educators need to know their triggers, give themselves space to breathe, pause before responding, practice empathetic listening, and establish an environment where student strengths are recognized. Such practices are key to becoming culturally sensitive and responsive. Educators need to employ these techniques in high-stress/high-emotion situations in the classroom. Responding correctly can be of great benefit to both the teacher and the student (Thomas et al., 2019; Souers & Hall, 2016).

Gaffney (2019) argued that 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 addressing student trauma without looking at the system of school will result in efforts falling short (Crenshaw, 1998; Ladson-Billings, 2007). Teacher learning that promotes a deeper understanding of poverty and their own preconceived notions, stereotypes, and deficit-ideology about students coming from poverty is a necessary step in educators' abilities to build relationships, teach content, and transform their mindset about poverty (Gorski, 2008, 2011). Teachers must recognize implicit bias and systemic policies and procedures that negatively affect students (Banaji & Greenwald, 2016).

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 necessary. Van Duzor (2011) defined motivating factors for teachers in transferring professional training to classroom practices as experiencing professional development (PD) 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 PD requires teachers to play an active role where they are recognized as professionals and where the PD is framed as teacher learning rather than teacher training (Van Duzor, 2011).

PURPOSE

The purpose of this study was to build teacher capacity to understand implicit bias and to move from deficit to asset-based thinking in relation to students and families living in poverty. The ultimate goal of this study was to build teacher capacity to educate students living in poverty, increase classroom practices that demonstrate asset-based ideology, decrease referrals to special education for students living in poverty, and decrease student out of class discipline for students living in poverty, thus creating more equitable outcomes for these often marginalized students.

CONTEXT OF STUDY

Frederick County Schools is a rural school district in the southeastern region of the United States with a total district enrollment of under 2,000 students. There is one high school, one middle school, and one elementary school (Bradford Elementary).

This study was conducted at Bradford ES. Because of the small, rural context, both district and school data are presented.

Within Frederick County, student demographics demonstrate minimal diversity. American Indians are the largest minority student group at 15.6 % of the population. The district is primarily White (76.9%), 3.4% Hispanic, < 1% Asian, < 1% African American, and < 1% two or more ethnic groups. Students qualifying for free/reduced lunch in the district is 60.97%.

The Public School Forum of [state] (PSF, 2019) confirms poverty is an issue for Frederick County. Frederick County's economic indicators are well below state averages. The median household income is \$15,009 below the state average of \$52,757, and the unemployment rate is 6.80%, which is 2.3% higher than the state average" (p. 15).

In addition to the poverty rate, families with Department of Social Services (DSS) involvement is an indicator that children experience trauma as well as poverty within Frederick County (PSF, 2013, 2019). Frederick County reports numbers of children in DSS custody at a rate 293% times higher than the state average, and child abuse and neglect numbers reported are 226% times higher than the state average (PSF, 2013, 2019). Frederick County ranks higher than state averages in teen pregnancy, child food insecurity, and child obesity. These data are clear indicators that some students within the Frederick County School system experience childhood trauma as well as poverty at an alarming rate (PSF, 2013, 2019).

An analysis of special education students and socio-economic status in Frederick County Schools show a drastic inequity between the number of all students in FCS 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, FCS students qualify for free/reduced lunch prices at a rate of 60.97% (Frederick County Schools, 2020b). Special education students, making up 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 (Frederick County Schools, 2020a). Although FCS has a high number of students qualifying for free/reduced lunch because of the high poverty level in the community, students with educational disabilities qualify at an even higher rate than the district. The high number of students living in poverty in the special education program shows students are being over-identified as having an educational disability.

In Frederick County Schools, not only are students living in poverty over-identified as having an educational disability, they also receive more out-of-class discipline referrals compared to students not living in poverty. An analysis of all out-of-class student discipline referrals in Fall 2019 indicated that students at Bradford Elementary School did not receive equitable out-of-class discipline, and the inequities occurred based on socioeconomic status. 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, Bradford ES had a free and/or reduced lunch rate of 65.6%. 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, the total number of out-of-class discipline referrals shows students qualifying for free and/or reduced lunch

comprised 85% of all referrals given Fall semester 2019, which is 19.4% higher than their representation in the student population.

Historically, teacher-learning opportunities in Frederick 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 Frederick County educators as a professional learning opportunity prior to this research study.

METHODS

The researchers used improvement science methods. 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, and research collection; "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?" (p. 97). Multiple cycles of the Plan, Do, Study, Act (PDSA) framework were carried out throughout this change initiative to collect data to address those questions (Langley et al., 2009).

The first author was the principal lead researcher. They developed a design team at Bradford ES that consisted of a school counselor, math coach, literacy coach, classroom teacher, special education teacher, and two teachers in Frederick County Schools who were currently earning their Masters in School Administration in a program that focused on growing equity-centered leaders.

Participants

The four session professional learning module for this study was offered to all employees of Bradford ES. All 36 certified teachers at Bradford ES participated in the four session professional learning module; 14 (38.89%) volunteered to participate in the research study. This training was infused as part of the required School Improvement Team Meetings. Therefore, certified and non-certified employees participated in the training. However, because the goal of the study was to increase educational outcomes for students living in poverty and to bring awareness to teacher implicit bias, only certified teachers were invited to participate in the research study. Participation was both voluntary and anonymous. All participants were given a unique identifier number to ensure anonymity.

Procedure

Four one-hour learning sessions occurred online after school hours. Learning sessions occurred online due to the COVID-19 Pandemic. The four session topics included 1) presenting local, school, and district data on poverty and trauma, 2) asset-based thinking and teacher-student differential on life experience, 3) the myth versus the reality of poverty and trauma, and 4) traumainformed teaching and classroom strategies to positively impact the educational experiences of students living in poverty. In the following sections, we describe each learning session and include an explanation of information delivered, a descriptive analysis of how data was used throughout the research project to make adjustments as necessary to subsequent sessions, and a statistical analysis of results collected throughout the project.

Session 1: Understanding the Why

The main objectives in Session 1 were to highlight the number of students living in poverty and experiencing trauma to increase understanding of how the lived experiences of the educators vary from the experiences of many of their students. 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 Bradford ES increased teacher buy-in to the professional development sessions. Ensuring teachers understood district and school data reflected implicit bias based on race and class was key. Teachers learned how implicit bias related to students living in poverty and experiencing trauma experience negative impacts on student education.

To demonstrate to faculty the presence of implicit bias throughout the district and the school related to poverty, researchers presented district level special education data and Bradford ES student discipline data. District special education data showed an overidentification of students living in poverty as having an educational disability by 12.3% (Frederick County Schools, 2019). Additionally, Bradford ES student discipline data showed 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. Data illuminated students living in poverty received more school discipline and lost more instructional time overall than middle and upper class students in Bradford ES (Frederick County Schools, 2019).

To close the session, faculty were provided 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?

Session 2: Asset-Based Thinking

Asset-based thinking was presented to increase teachers' understanding of how their thinking about their students and students' families, specifically those living in poverty, can result in negative educational experiences for those vulnerable students. The main objectives covered in Session 2 were national educational trends for students living in poverty, defining and understanding the teacher-student differential (the idea that any difference that exists between the teacher and student, race, class, gender, etc. can be a barrier to relationship building and negatively impact student educational experiences), understanding intersectionality and the educational impacts for students with more than one differential from the White, middle class norm, recognizing deficits versus assetsbased thinking, and how educator thinking effects both the educator and the student.

Guiding questions were asked to assist teachers in understanding new concepts. Participants were asked to discuss the following questions:

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- **Building Teacher Capacity**
- 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?
- 3. 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:

- 1. What are your personal student triggers?
- 2. What deficits do you find yourself focusing on most often?
- 3. What impact does that thinking have on you as the teacher & the student you are thinking about?
- 4. How could those deficits be reframed into assets-based thinking?
- 5. Think of a challenging student.
- 6. What are their assets?
- 7. Have you specifically pointed out their assets to them so they are aware of your specific praise?
- 8. Have you ever had a very difficult student that once you learned "their story" your entire attitude and approach with that student changed?
- 9. If yes, share your story.
- 10. What changed? Was it you or the student?
- 11. What was the result?

These questions required teachers to reflect on their own students, their own classroom practices, thoughts about students and families, their own positionality compared to that of their students, and their own negative thoughts and feelings. Teachers learned they must identify deficit versus assets-based thinking in order to address their own practices which can be a lifelong journey.

Session 3: Realities of Poverty & Trauma

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 believing in a culture of poverty and the stereotypes associated with the false ideology. 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 can have on student experiences. National data were 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?
- 2. 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?

3. What information related to the national statistics for lowincome schools spoke to you personally or was shocking to you?

Session 3 then progressed from discussing poverty to discussing trauma students may experience and the impact that trauma has on educational experiences. We presented a review of Maslow's Hierarchy of Needs and the educational impacts of ACEs (Felitti et al., 1998). Poverty is 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. We 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.
- 2. 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?

Session 4: Classroom Strategies

In Session 4, we gave participants specific strategies to implement into their classroom practices to positively impact the educational experiences of students living in poverty. Professional learning without impact on practice is ineffective. This session was designed to provide teachers with tools to specifically inform their practice. Learning objectives for Session 4 were to understand the impact of trauma-informed teaching and discuss strategies to use within the classroom for students who live in poverty and/or have experienced trauma.

Participants 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 with their colleagues ways they incorporate those aspects of trauma-informed teaching into their classrooms. Participants were asked to give specific examples of ways they meet students' needs while teaching the curriculum and the importance of having a growth mindset for students, as well as teaching them to have a growth mindset for themselves. The presentation ended by reminding participants that nothing affects student experiences more in a classroom than the teacher. Being trauma-informed and purposeful in classroom design affects student experiences (Brunzell et al., 2019; Craig, 2016).

At the end of each professional development session, participants completed a reflective impact questionnaire so they could document their learning. The survey included two open-ended questions: (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? Results from the survey were analyzed at the end of each session to inform following sessions.

RESULTS

In this section, we present results from the reflective impact questionnaire as well as school data pre and post this 12-week improvement initiative related to out of class discipline, referrals to special education, and implementation of asset-based teaching practices.

Participant responses to a reflective impact questionnaire were collected at the end of each session, and the qualitative data were analyzed to determine participant learning throughout the foursession professional learning module. In vivo coding was used as first-round coding to analyze each question on the reflective impact questionnaire. 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 et al. (2014) noted pattern coding as taking "segments of data and organizing them into categories, themes or constructs" (p. 86) to enable patterns within the data to emerge. Table 1 illustrates participant learning based on themes presented in each session.

Table 1. List Major Ideas Learned in Order of Importance

Session	Themes	Number of Responses	Percentage
4	Trauma-Informed Practices	13/13	100%
1	District Data on Poverty & Trauma	10/12	83.33%
2	Asset v. Deficit-Based Thinking	10/14	71.43%
3	Myths v. Realities of Poverty	9/14	64.29%

The major idea reported with the greatest frequency was in Session 4 involving trauma-informed practices with 100% of participants indicating this topic as new information learned. The next most reported frequency for major learning was 83% in Session 1 involving district data on students living in poverty and the disparities students in poverty face with overidentification of educational disabilities and out-of-class discipline. Other major ideas learned in Session 2 were asset versus deficit based thinking (71%) and in session 3, myths versus the realities of poverty (64%). These findings confirm that teachers, even those who have worked in highpoverty districts, need intentional learning related to trauma and poverty.

Data confirmed teachers experienced new learning as a result of the PD, especially in reference to how asset-based thinking can impact students beyond the classroom. One participant stated, "Focusing on students' assets rather than deficits makes a huge difference in school and in life performance." Another participant said, "Students pick up on how teachers feel about them." Yet another participant espoused, "Fill your students with positive and kind words and they will believe you." Such responses edify Gorski's (2011) assertion that deficit thinking towards students can affect the way students think about themselves.

Qualitative data from Session 2 confirmed teachers' previous lack of knowledge related to students living in poverty. One participant relayed, "I knew poverty was bad in Frederick County but I did not have a clue of the severity of it compared to the state numbers." These data demonstrate 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) noted when professional development to which teachers are exposed directly connects to the students they teach, it 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.

Table 2 illustrates the session and frequency of themes that challenged or changed participants' thinking or perspective.

Table 2. What One Thing Challenged or Changed Your Thinking or Perspective?

Session	Themes	Number of Responses	Percentage
3	Myths v. Realities of Poverty	7/14	50%
1	Meeting Student Needs	5/12	41.66%
4	Student Mental Health	5/13	38.46%
2	Asset-Based Thinking	5/14	35.71%

When asked, "What one thing challenged or changed your thinking or perspective?," the greatest frequency occurred in Session 3 where 50% of participants reported myths versus realities of poverty was both important new learning and challenged their current thinking. This finding aligns with hooks (2014) research regarding how stereotypes about marginalized groups are difficult to change. Similarly, Banaji and Greenwald (2016) reported stereotypes are deeply ingrained and require a conscious understanding and desire to recognize and address them when they surface. Teachers having increased awareness of their personal biases is vital to impact implicit bias that goes unrecognized. One participant stated, "One thing that challenged me was to stop and think about why a student may be acting out and is consistently in trouble." Another participant pondered, "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." Another participant 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. 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 (Craig, 2016; Stokes & Brunzell, 2020).

An analysis of district data prior to this 12-week study revealed students living in poverty were identified at a higher rate as having an educational disability than their White, middle-class peers in FCS. Frederick County Schools special education rate was reported at 15.3% (Frederick 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.

In Fall 2020, eight students were referred for special education testing (Frederick County Schools, 2020a). Six of these students (75%) qualified for free/reduced lunch, and two (25%) of students did not (Frederick County Schools, 2020b). Therefore, in Fall 2020, students referred for special education 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. During Fall semester of 2021, which is the timeframe of this 12-week research project, 26 students were referred for special education testing (Frederick County Schools, 2021a), with 13 (50%) of students qualifying for free/reduced lunch

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and 13 (50%) of students not qualifying which is proportional representation of students referred for special education testing (Frederick County Schools, 2021b). A comparison of Fall 2020 special education referral data to Fall 2021 data demonstrates a decline from 75% to 50% of students being referred for special education testing who qualify for free/reduced lunch. This is an overall reduction of 25% after this 12-week improvement initiative. Because teachers do a majority of referrals for special education testing, we believe training related to over-identification prevents teachers from using indicators of trauma as indicators of special education service needs. See Figure 1 below for the 2019 to 2021 comparison of students qualifying for free/reduced lunch based on poverty level and qualifying as having an educational disability, compared to their paying peers.

Figure 1. Students Referred for E.C. Testing: Free/Reduced Lunch to Those Not Qualifying



Out-of-class student discipline referrals from Fall 2019 indicated that students at Bradford ES were not receiving equitable out-ofclass 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 discrepancies resulting from school closures due to the COVID-19 pandemic). In 2019, Bradford ES had a free and/or reduced lunch rate of 65.6% (Frederick County School System, 2019). An analysis of the total number of out-of-class discipline referrals revealed students living in poverty comprised 85% of all referrals given Fall 2019, which is 19.4% higher than their representation in the student population.

From August to December 2021, the time period encompassing the 12-week improvement intiative, the frequency at which students living in poverty who received out-of-class discipline was at a rate of 13.16% higher than their proportionate representation. Although still elevated, upon completion of the four-session learning modules, Bradford ES saw a 6.24% decline in the frequency of students living in poverty/qualifying for free reduced lunch receiving out-of-class discpline. Figure 2 illustrates the decrease in out-of-class discipline during this 12-week research study.

Therefore, both special education referral reduction data and out-of-class student discipline data demonstrated a positive change during this time of this research study. However, whether or not teachers implement new learning into practice is vital for the longterm success of the improvement initiative. Guskey (2010) espoused educators are more invested in learning opportunities when aligned with self-defined professional growth needs and when teachers believe new learning is directly related to the students they teach.





Implementation of classroom practices related to poverty and assets-based ideology rose to 92.86% by the completion of the research initiative. 92.86% (n = 12) of participants reported a willingness to transfer new learning associated into classroom practice. Clearly, information provided in the learning modules was deemed useful and necessary by participants.

Student end of year standardized test scores for the 2021-2022 increased for students living in poverty. SAS Institute Education Value-Added Assessment System (SAS EVAAS) considers a student group falling in the range of -2 to +2 as meeting projected growth on standardized tests for the school year. Students falling below -2 are labeled as not meeting expected growth, and students achieving above +2 are labeled as exceeding expected growth on standardized tests for any given school year (Frederick County Schools, 2022). SAS EVAAS reported data for Bradford ES as follows: Economically disadvantaged students met expected growth with a growth index of -1.33, and students with disabilities met expected growth with an overall growth index of -1.14. While these marginalized groups met expected growth, White students were reported as not meeting expected growth with a reported growth index of -2.88 (Frederick County Schools, 2022). The success of Bradford ES students living in poverty meeting expected growth on grade level standardized tests suggests this improvement initiative positively impacted student performance on standardized tests, thus positively impacted the educational experiences of these students. The lack of growth for White students is also an indication that while teachers are focusing on implicit bias and poverty, maintaining a focus on rigorous core instruction for all students needs to be an ongoing priority.

LIMITATIONS

One limitation of this study is its small sample size. However, 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.

An additional limitation of this study is 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. 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 2021, and if it was perhaps due to learning loss as a result of the COVID-19 pandemic.

DISCUSSION AND RECOMMENDATIONS

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) stressed how difficult it is for individuals to be aware of the water in which they have always been swimming. The existence of the bias can go completely unnoticed because of its implicit nature being ingrained in societal norms. Leaders can easily avoid this type of challenge, but tackling the beliefs of teachers related to the students they teach is imperative to see real change and provide optimal educational experiences for marginalized students. When addressing deeply held, ingrained beliefs and challenging those beliefs, the following recommendations should be considered to improve likelihood of impact and success:

Give teachers 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 individuals experience emotions when beliefs are challenged. They are tempted to freeze, shut-down, or remove themselves from the group, therefore hindering progress. Educators 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) underscored 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. Therefore, individuals engaged in this work need to give themselves time and grace personally to avoid burn-out and abandon this needed journey.

Multiple learning opportunities are 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 a priority for educational leaders. Mizell (2010) noted professional development is most effective when it happens in teams and is part of a continuous improvement model as was the case in this study. High-stakes accountability testing and other job responsibilities make it easy to let professional learning opportunities that address stereotypical beliefs fall behind other activities. Therefore, educational leaders must seek out additional learning opportunities for staff and continue to address teacher implicit bias over time.

Make sure everyone has the opportunity. Keeping this work a priority requires ensuring all school employees receive learning opportunities. 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 creating a climate of assets-based thinking and positive support for vulnerable students. All employees must be engaged in this important work to ensure improvement in student educational experiences.

CONCLUSION

Students living in poverty are at-risk for suboptimal educational performance. 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 with the aim 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 within the system as it currently exists. The realization of system-wide problems and teachers' own biases could change the lens of educators and positively impact experiences for vulnerable students.

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