Changing Staff Dispositions: Ending the Perpetuation of "At-Risk" for Students from Economically Disadvantaged Households

A disquisition 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.

By

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For our children; Matthew, Hannah, Carson, and Delaney. You can do anything too!

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ABSTRACT

The disproportionate number of students from economically disadvantaged households underperforming in schools has been long studied and well documented. This study examines the role dispositions, attitudes, and perceptions teachers have toward students from economically disadvantaged households play in the attendance, office discipline referrals, and achievement of these students. Without deepening the equity literacy through systematic professional development, educators will, without intended malice, continue to perpetuate these myths and potentially lower their expectations of their students in poverty. The improvement initiative includes three professional development sessions to support development of teachers' understanding of trauma-informed pedagogy, shift to asset-based ideology, and develop efficacy in working with students from economically disadvantaged households. Mixed methods were used to collect and evaluate data. Survey data were collected before and after the improvement initiative measuring teachers' perceptions, attitudes, and knowledge in working with students from economically disadvantaged households. Student attendance, as well as student office referral rates, were measured monthly. Initial findings show an increase in teachers' efficacy as well as an increase in asset-based thinking. Twenty-eight percent of participants changed their opinion to agree with the idea that situations outside a person's control may cause poverty. Additionally, data collected from pre-initiative to post-initiative showed a student absence rate drop of 4%, and an office discipline referral reduction of 45%. Lessons learned in improving instructional practices, increasing efficacy, and building teachers' capacity to teach students from economically disadvantaged households should be considered when planning professional development to support greater equity and access for all students.

The Disquisition and the Role of the Scholar-Practitioner

Traditionally, doctoral students complete a dissertation as part of their doctoral work. The dissertation presents the research of a scholar. The disquisition presents scholarly research while focusing on problem identification and intervention for that problem to create a change for improvement. The process of a disquisition explores and addresses an identified problem of practice within cycles of interventions. The problem of practice is one identified by the researchers. The purpose of the disquisition is to study and intervene in this professional space where the problem was identified.

This disquisition is not a study carried out by external researchers. Because we believe improvement demands the active engagement of the educational practitioners, the researchers implemented this study as practitioners. This model challenges the prevailing arrangements in which researchers study and analyze, and then school leaders use such research in their work (Byrk, Gomex, Grunow, LeMahieu, 2016). As school leaders, the opportunity to apply our scholarly research within our setting has been a motivating experience. It has allowed us, as current practitioners, to be fully vested in the improvement initiative taken place. We were able to experience the improvement initiative first hand and watch as this change improved outcomes for our students. This disquisition is an amalgamation of our work as scholar-researchers, and our work as practitioners using improvement science to lead change.

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for Students from Economically Disadvantaged Households

Introduction and Statement of the Problem

Poverty and homelessness can impact all aspects of a child's academic development, including literacy development of students across the United States (Walker-Dalhouse & Risko, 2008). The lack of permanent housing and sufficient income to meet basic needs can cause emotional, physical, social, and behavioral challenges for school-age children. These challenges lead to absenteeism; high-mobility across schools; constraints on a child's connectivity with teachers, students, and school; and negatively impact students' literacy experiences and development. Seventy-five percent of homeless students perform below grade level in reading (Walker-Dalhouse & Risko, 2008). Multiple studies confirm that students experiencing poverty do not perform academically at a level consistent with their high socioeconomic status counterparts (McLoyd, 1998; Sirin, 2005). Students from lower socioeconomic subgroups scored lower in math in a study by Caro (2009) that also showed achievement gaps that widened as students stayed in school. These same students scored lower in math and reading across second through seventh grades (Pungello, Kupersmidy, Burchinal & Patterson, 1996). Racial and ethnic minorities represent a more significant percentage of students with lower socioeconomic status, and achievement gaps have been traced back to economic instability (Magnuson & Duncan, 2006). On multiple national assessment measures, 40% of third graders from low-income families showed grade-level proficiency, while 75% of their middle and upper-class peers were proficient. Fifth and eighth-grade testing also indicated the same ratio of success (Morgan, 2012).

The disproportionate number of students from economically disadvantaged households underperforming in schools has been long studied and well documented. Empirical studies have shown that students from lower socioeconomic status households demonstrate less success on standardized assessments (Agasisti, 2018), decreased academic achievement (Duncan, Ziol-Guest, & Kalil, 2010), higher absenteeism, (Morrissy, Hutchenson, & Winsler, 2014), and higher incidence of office referrals for behavior infractions (Peterson, Skiba, & Williams, 1997). The achievement gap between students from economically disadvantaged homes and their peers from economically advantaged households continues to widen, increasing by 40% in the last generation alone (Duncan, Murname, & Reardon, 2011). The percentage of students who live below the poverty line continues to climb, while at the same time, the achievement gap between high income and low-income students widens (Reardon, 2011).

Much dialogue in education surrounding student achievement continues to focus on these and other 'risk' factors faced by students from economically disadvantaged households. However, these factors in and of themselves do not automatically mean risk. Discourse centered around 'at-risk' students continues to enable our schools and educators to avoid taking responsibility for the academic underachievement of these students. This highlighting of student risk factors rather than highlighting institutional barriers and educator ideology continues to perpetuate academic risk for students of lower socioeconomic status (Macmahon, 2011).

The cycle of perpetuating students from economically disadvantaged households as at-risk while simultaneously blaming poor people for the outcomes resulting from their poverty has been called “deficit ideology” (Gorski, 2011; Sleeter, 2004) or “deficit thinking” (Dudley-Marling & Lucas, 2009; Valencia, 1997; Yosso, 2005). Deficit ideology focuses on a student’s

inability to achieve and their family's inabilitiey to help them achieve. Deficit ideology also allows educators to systematically shift the blame for these students' underachievement. The function of deficit ideology is to justify existing conditions, such as the socioeconomic achievement gap, by identifying the problem of inequality as located within students and families, rather than as pressing upon, poor people (Gorski, 2012). For educators, deficit ideology can be used as a way to explain or justify inequities or the "achievement gap" in standardized test scores. By pointing out supposed deficiencies within disenfranchised communities, schools can ignore that opportunities tend not to be offered in ways that make them accessible to families living in poverty as they are provided to wealthy or even middle-class families (Gorski, 2012). Ladson-Billings (2006) suggested that the very practice of using the term "achievement gap" to describe a problem that, ultimately, is less about achievement than about access is symptomatic of deficit ideology. Students from economically disadvantaged families have less access to prenatal care, preschool, full-day kindergarten, and fully-equipped and adequately funded schools (Gorski, 2012).

Morgan (2012) suggested specific improvements in the methods by which schools provide opportunities for students with unmet needs and urge that systems are at fault and should avoid placing blame on the students themselves. Ultimately, educators seeking to help students from economically disadvantaged households must consider the pedagogy and the ideology that has led to lowered expectations and underperformance of our students of low socioeconomic status. Educators committed to a socially just society, in which all students have equitable access to our nation's cultural and economic wealth, must work to transform schools serving students in poverty and challenge destructive barriers that demonize the poor (Theoharis & Scanlan, 2015).

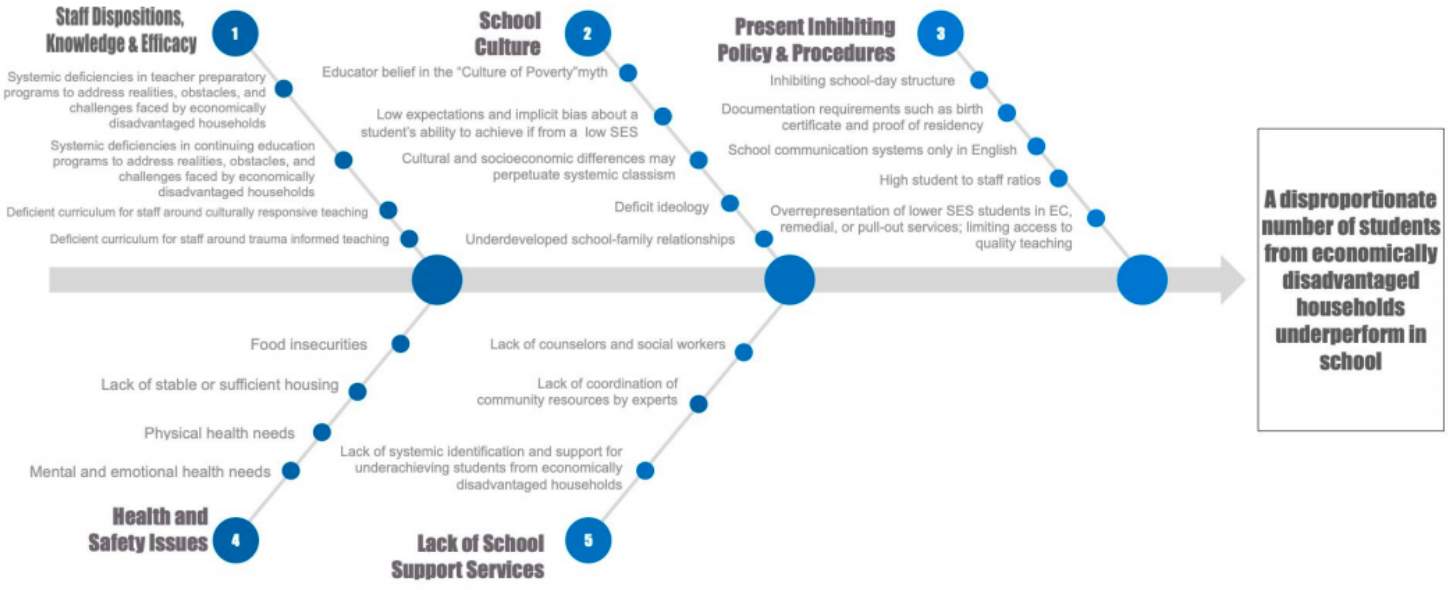
History and Current State of the Problem

Circumstances that impact children and schools surrounding poverty are complex, diverse, and ever-evolving. Understanding that external complexities may be beyond the scope of a school administrator's control, internal systems and deficiencies may also inhibit the ability to respond to poverty effectively and may even reinforce or strengthen student liabilities in the classroom. It is because of this complexity that generative leadership is needed to support change within a complex system. Generative leadership involves balancing interaction among individuals and groups within complex systems. Generative leaders create the conditions that nurture innovation (Surie & Hazy, 2006). Generative educational leaders are tasked with nurturing the change within their systems to problem solve the complex obstacles surrounding how poverty impacts student achievement (Goldstein, Hazy, & Lichtenstein, 2010).

The propensity to jump quickly to a potential solution before fully understanding the exact problem to be solved, as well as the multitude of issues that could be leading to the problem, can lure leaders into implementing unproductive strategies (Bryk, Gomez, Grunow, & LeMahieu, 2016). To avoid this, we conducted an in-depth analysis of potential causes leading to a disproportional number of students from economically disadvantaged households underperforming in schools. We chose a fishbone diagram to break down the potential root causes that contribute to this problem. The fishbone diagram tool below (Figure 1) is a visual representation of possible answers to the question of why we get the results we are observing (Bryk et al., 2016). By pinpointing root problems, this fishbone diagram provides insight into areas for which improvement might be made (Ishikawa, 2017). We focused on internal or systemic factors that contribute to the underachievement of students from economically

disadvantaged homes because these factors are within our control, and we believe that socially just educators must consistently analyze the systems and structures in place for problems through asset-based rather than deficit-based thinking. Questions regarding the scope of a school's role in the lives of students, as well as the question of resources, speak to the complexity of responding to poverty through education. Considering this complexity, we conducted a causal analysis to identify systemic factors that contribute to the problem of students underachieving in school from economically disadvantaged households.

Figure 1: Fishbone diagram showing causal analysis



Literature Review of Potential Causes of Problem

Complex systems can manifest behaviors that no one intentionally designed (Bryk et al., 2016). Our analysis of the problem of a disproportionate number of students underperforming in schools from economically disadvantaged households revealed the following potential causes of this problem: (a) a lack of school support services, (b) health and safety issues, (c) inhibiting structures and factors, (d) a school's culture, and (e) the disposition, knowledge, and efficacy of the teachers within the school. There is a vast body of literature around each potential cause.

Lack of School Support Services

In recent years there has been a growing consensus about the relationship between addressing the out-of-school factors that interfere with children's lives and student academic success in school. Educators, policymakers, and communities alike have come to understand that the achievement gap between low-income and middle/high-income children widens when we ignore factors our students face outside of the school building. Our students who live in poverty do not have the same access to food, medical and mental health, and social-emotional safety as their peers in middle and upper socioeconomic households.

A shortage of school counselors and student support staff have left schools to address issues facing students from economically disadvantaged households with handicapped structures and resources. Compounding this issue are funding limitations in many districts, forcing schools to accept large student-teacher ratios, impeding additional counselor and support staff hiring. Contemporary trends in educational accountability have been heavily-focused on standardized testing. The ramifications of this policy emphasis far exceed the limitations and scope of this paper, but students from poverty are negatively affected in various ways. While studies show

inherent flaws in racial and cultural bias in standardized tests (Berlak, 2001), the debate remains whether the assessments are even valid measures of student learning and growth (Rose, 2015).

Additionally, the emphasis on raising test scores has caused many schools to reduce or remove programs from non-tested subjects, including, but not limited to, science, history, geography, and arts (Rose, 2015). Schools and administrators being measured by test performance moves resources toward testing and away from a well-rounded educational experience. School reform follows the testing, rather than other valuable programs or initiatives proven to assist students and schools with lower socioeconomic status. Students from low-income, low-performing (as measured by test scores) schools may receive test-focused remediation and improve scores, while simultaneously enduring a lower-quality education (Rose, 2015).

Districts and schools are faced with doing more each year, often with static or declining budgets. Many schools struggle to meet this financial demand and provide students with resources and programs critical to student success, yet also be resourceful and meet needs that they otherwise would be unable to afford with current funding levels. Some of these schools have gone as far as to add staff positions specific to developing and coordinating community partnerships (Blank, Melaville & Shaw, 2003). Many schools, however, are not organizing or may not even be aware of resources or agencies able and willing to serve their students and communities. These missed opportunities lead to student needs and deficiencies left unaddressed, contributing to lower rates of school performance. Districts and schools that may be aware of potential relationships may also not have the human resource capacity or administrative structure to establish and facilitate these partnerships effectively.

Health and Safety Issues

Twenty-one percent, or 1 in 5, families in the United States with children experience food insecurity (Shankar, Chung, and Frank, 2017). This hunger issue equates to approximately 16 million students. Significant associations have been found connecting food insecurity and lower academic achievement (Esfandiari, Omidvar, Eini-Zinab, Doustmohammadian, & Amirhamidi, 2018). Beyond the analysis of data associated with test scores and grades, food insecurities can have far more significant consequences, including contributing to developmental issues in children (Jyoti, Frongillo, & Jones, 2005).

Students missing meals leads to depression, anxiety, and sickness (Fuglei, 2013). Schools seek to address food insecurity in various ways, including serving multiple meals to students daily, offering free and reduced lunches, and partnering with local food banks and sending meals home on weekends. However, efforts are localized and inconsistent across districts. Funding for increasing the scope of the National School Lunch Program to include weekend and holiday meals and access to food has not materialized (Fuglei, 2013).

Students without stable housing, or those that are experiencing homelessness, achieve at lower levels than students not facing these obstacles. Lower standardized test scores, more suspensions, more absences, and lower grades and performance are all linked to homelessness in K-8 students. The National Center for Homeless Education (2014) claimed that almost 1.3 million students faced homelessness in 2013, a number that has increased since 2010 (Stone & Uretsky, 2016). Students who are racial minorities, as well as those in low socioeconomic status subgroups, are overrepresented among students facing homelessness, a factor that contributes to

achievement gaps (Obradovic, 2010). Scores in math and reading were lower among homeless and students who move more than once a year, while data showed inhibited growth among students in these risk groups. Students with residential mobility have been linked to lower levels of academic achievement, more problems at school, and increased rates of grade retention (Cutuli et al., 2013). Achievement gaps between homeless and students with high residential mobility, compared to students with stable housing, remained firm or increased (Cutuli et al., 2013).

The mental health needs of school-age children are another growing concern related to the health and safety of students. The U.S. Department of Health & Human Services (1999) has shared that at least one in five children have mental disorders with at least mild functional impairment. Some have projected upwards of 40% of those in need of services failed to receive them. Families dealing with poverty saw the rate of unserved mental disorders climb to 45%, while African-American and Latino children saw even higher rates, coming in at 55% and 46%, respectively (Children's Defense Fund, 2014). Mental health struggles at school also tie directly to the lack of training teachers receive in identifying illness and the appropriate steps needed to support students. Teacher education and professional development programs mostly leave social and emotional behavior unaddressed, leaving teachers ill-equipped and unprepared to deal with mental illness and behavior disorders in the classroom (Ashkarinam, 2016).

Poor physical health is yet another cause impacting student health that contributes to lower student achievement, and students from poverty are in worse physical health than higher socioeconomic status students (Rothstein, 2011). Vision issues, dental access, asthma rates, and lead dust exposure affect students from poverty at rates higher than students from wealthier areas

and homes. Sometimes, these differences are substantial. Students exposed to alcohol or smoking during pregnancy, as well as maternal stress, all instances that are more prevalent among low socioeconomic status households, are more likely to be sicker and less likely to show resilience when dealing with health issues when older (Rothstein, 2011). Even students from economically disadvantaged homes with access to care receive lower-quality care in lower-quality facilities. Student absences contribute to lower school performance. A lower-income Los Angeles neighborhood survey revealed one primary care physician available for every 13,000 residents. A nearby higher-income area had one primary care physician for every 200 residents (Rothstein, 2011).

Inhibiting Policy and Procedures

Policies and procedures established by schools and school systems may contribute to the overrepresentation of underperforming students from economically disadvantaged households. Economically disadvantaged households face additional obstacles to student academic achievement when the school schedule is static. Parents or guardians with multiple jobs, or those that work non-traditional hours, may find themselves in conflict with the daily schedule of their respective schools. The traditional 9-month school-year calendar can provide yet another issue for low-socioeconomic status families.

Summer learning loss has been found to impact low-socioeconomic status students at higher levels than those of their higher socioeconomic status peers. Alexander et al. (2007) showed nearly two-thirds of the achievement gap is related to economic hardship. Supplemental educational opportunities, such as camps, tutors, service learning, and travel, are less accessible to low socioeconomic status students. In this way, breaks and holidays are more detrimental to

students from lower-income households from an education standpoint and risk further widening achievement gaps. Multiple studies show academic growth halts during the summer months and may disproportionately affect low socioeconomic status students, who may even see a drop in achievement when not attending class (McMullen & Rouse, 2014).

Language barriers can also provide a significant barrier to learning and parental involvement. Child Trends (2015) reported that 25% of US students are foreign-born or born to foreign parents. Nearly half (47%) of these students, eight years and yonger, are limited English proficient. The same report estimates around 20% of schools do not provide communication in languages other than English. The negative impact of this can be widespread, including leaving many students and parents disconnected from the day-to-day reporting of their respective schools, not allowing teachers to connect with students' culturally, and potentially keeping parents from becoming more involved with schools and classrooms (Child Trends, 2015).

School Culture

Teachers' perceptions shape practices in the classroom and school environment (Skiba, 2002). Chief among the impressions for many teachers is the culture of poverty myth – "the idea that poor people share more or less monolithic and predictable beliefs, values, and behaviors," (Gorski, 2008, p. 33).

Deficit ideology in teachers and school staff contributes to the underachievement of students from lower socioeconomic households. Although structural causes of poverty are researched and documented, many educators continue to have deep-seated beliefs in the myths of the culture of poverty. Previous research has documented myths that teachers hold include ideas such as poor parents are uninvolved in their children's learning mainly because they do not value

education, are linguistically deficient, and tend to abuse drugs and alcohol (Compton-Lilly, 2004; Gorski, 2008; Rogalsky, 2009). This inequity in teachers' perceptions of student barriers to academic success ultimately creates a lack of success. Gorski (2016) referred to this understanding as ‘equity literacy,' and notes that re-examining our beliefs and strengthening the equity literacy among educators is indeed our schools' greatest need. Without deepening the equity literacy through systematic professional development, educators will, without intended malice, continue to perpetuate these myths and potentially lower their expectations of their students in poverty.

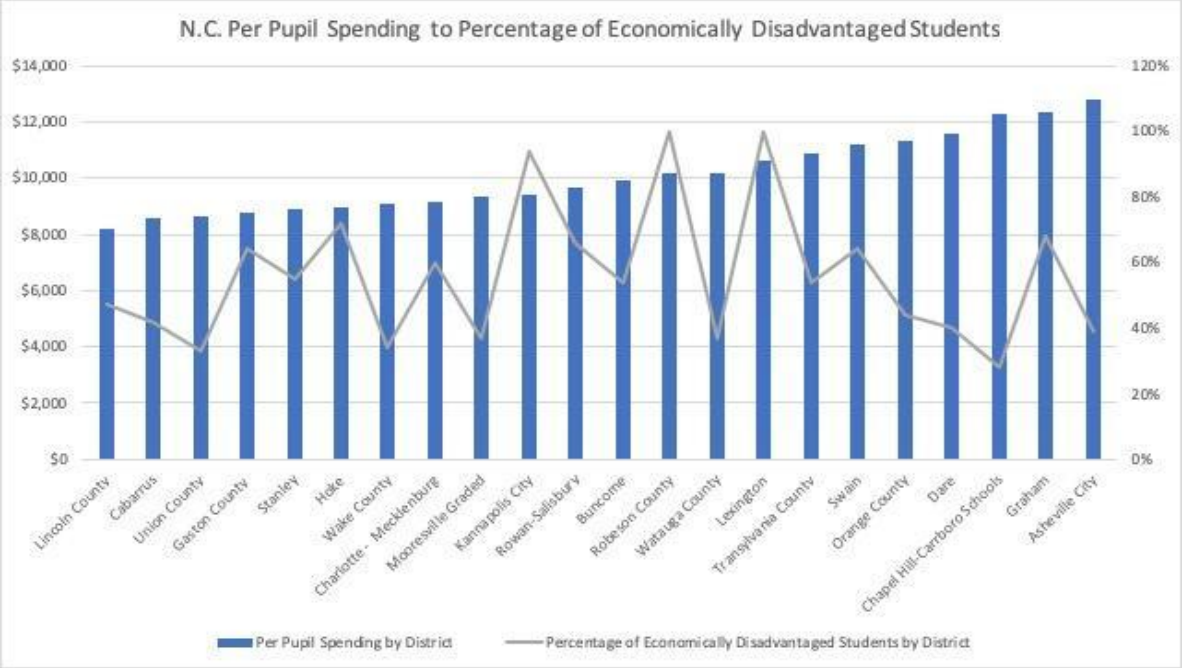
Much research has been dedicated to the impact of school-family relationships, showing a positive correlation for schools and students when families are highly involved (Epstein, 1992). Research has demonstrated African-American and Hispanic families, shown as having been affected by poverty at rates higher than Caucasian families, have lower rates of involvement in school while still showing high levels of academic expectations for their children (Yan and Lin, 2005). While language barriers, access, transportation, work conflicts, negative previous educational experiences, and various other explanations are offered and also discussed elsewhere in this paper, schools must find ways to engage and involve families, especially those from minority and low-socioeconomic status households. Healthy home and school relationships lead to student achievement increases (Yan & Lin, 2005). When they lapse or do not exist at all, students from economically disadvantaged households are confronted with yet another obstacle to overcome.

The American School Counselor Association recommends 250 students to 1 school counselor ratio. However, the most recent national data shows a 482:1 ratio (American School

Counselor Association, 2015). North Carolina fares slightly better, coming in at 378:1. However, the thought of a single school counselor effectively responding to a caseload originating from 300-400+ students is daunting at best. Additionally, many counselors are asked to split time between schools, making it more challenging to create and maintain connections to each school's culture and respective community. High counselor-student ratios increase disruptions to learning because of student misbehavior, including incidents of violence, missing class, theft, and substance abuse (Reback, 2010). Student support reaches beyond the school counselor position for many schools and can include social workers, program coordinators, teacher assistants, and other administrators. According to 2006-2007 data, there is a 44:1 student to student support staff (including teacher aides, librarians, administrators, and other support staff) ratio. Again, North Carolina falls slightly ahead of the national average with a 36:1 rate but falls behind minimum student-to-counselor ratios (National Center for Education Statistics, 2018).

While per-pupil funding for the United States compares favorably with other developed nations, North Carolina ranks 39th in per-pupil spending. The U.S. average spending is $11,934 per student, and North Carolina fell short of that total in 2017 at only $9528 (Public Schools First, 2017). There are significant discrepancies between funding among individual districts in North Carolina, and often, the differences in educational, financial distribution follow socio-economic lines. There are many examples of this inequity. Figure 2 below highlights several inequities within the state including Asheville City Schools with only 39% of students, who are economically disadvantaged and a per-pupil expenditure of $12,790 compared to Kannapolis City Schools with a per-pupil expenditure of $9400 and 94% of students who are economically disadvantaged.

Figure 2: Sample of North Carolina per-pupil expenditure considering the percentage of students who are economically disadvantaged



Economic inequities are systemic, cultural, and political, and show that economically disadvantaged students can be in nearly adjacent districts yet may receive remarkably less funding to support their education. This social failure contributes to the deficit ideology of many educators regardless of the evidence showing otherwise (Ladson-Billings, 2007).

Staff Dispositions, Knowledge, and Efficacy

Of the 3.8 million public school teachers in the United States, the overwhelming majority, 80%, are white. Nearly that same percentage, 77% of all teachers are female (Loewus, 2017). North Carolina mirrors those statistics. Of the state's 94,000 teachers, 80% are white, 14% are black and 5% are Latinix (Rhew, 2018). Teachers frequently find themselves around cultures and contexts with which they are unfamiliar. Often when people find themselves in

unfamiliar settings, their decision-making cognition may default to intuition and stereotyped beliefs (De Neys & Vanderpeutte, 2011). While demographics alone may not contribute to our stated problem, cultural and socioeconomic unfamiliarity may be an obstacle to achievement. Tracing systemic deficiencies back to an inability to address cultural differences and understanding the realities of classism in teacher training, as well as ongoing professional development, can contribute to the underperformance of students from economically disadvantaged households.

Ladson-Billings (2006) has discussed the phenomenon of educators using the "culture of poverty" as an excuse for their own, or their school's inability to assist students toward academic success. Instead of falling into a pattern of accepting or excusing underachievement as an immovable consequence of poverty, Meyerson (2000) discussed the lack of teacher education programs that address the obstacles and specific challenges faced by students from lower socioeconomic status.

Historically, there have been efforts that have perpetuated deficit ideology within teacher training regarding implicit bias and systemic obstacles faced by students from economically disadvantaged households. Consider, for example, Ruby Payne's (2005) ascent as one of the most popular and prosperous school consultants on poverty and education (Ng & Rury, 2006). Despite the fact that the content of Payne's work is inaccurate (Bomer, Dworin, May, & Semingson, 2008) and oppressive (Gorski, 2008a; Osei-Kofi, 2005), her teaching and workshops have influenced schools and teachers profoundly. Payne's teacher workshops have been shown to deepen participants' negative stereotypes about low-income families (Smiley & Helfenbein, 2011).

Educators, perhaps due to inadequate training regarding students from lower socioeconomic status, may carry low expectations for students facing poverty. Preconceived notions or implicit bias regarding student potential and ability can limit achievement. Educators sometimes use socioeconomic status and race to measure the expectations of students, assuming students with low socioeconomic status and African-American students have less capacity than white students (Diamond, 2004). Teacher expectations have been shown to have a powerful impact on achievement among African-American students (Ferguson, 1998). Additionally, the low level of collective responsibility and the lack of confidence among these teachers may speak to systemic flaws outside of individual perception (Lee & Smith, 1996).

Lee and Smith (2001) cited teacher-reported levels of collective responsibility for student performance, combined with the expectations of students, as being a critical piece to underachievement among low socioeconomic status students. Schools with the highest levels of collective responsibility, or the level of teachers' willingness to accept responsibility for all students' learning (Goddard & LoGerfo, 2007) are those with higher socioeconomic status students. This lack of responsibility may mean that teacher assessments and expectations related to the socioeconomic or demographic makeup of the students they teach. Conversely, Lee and Smith claimed, "the concentration of low-income African-American students in particular schools are deeply coupled with a leveling of teachers' expectations and a reduction in collective responsibility." The burden of misguided expectations falls on the organization, or system, to address. In this area, many schools have failed or are still developing programs to support their respective teachers. More than 25% of U.S. children have been affected by childhood trauma (National Child Traumatic Stress Network, 2008), which can result in a wide variety of negative

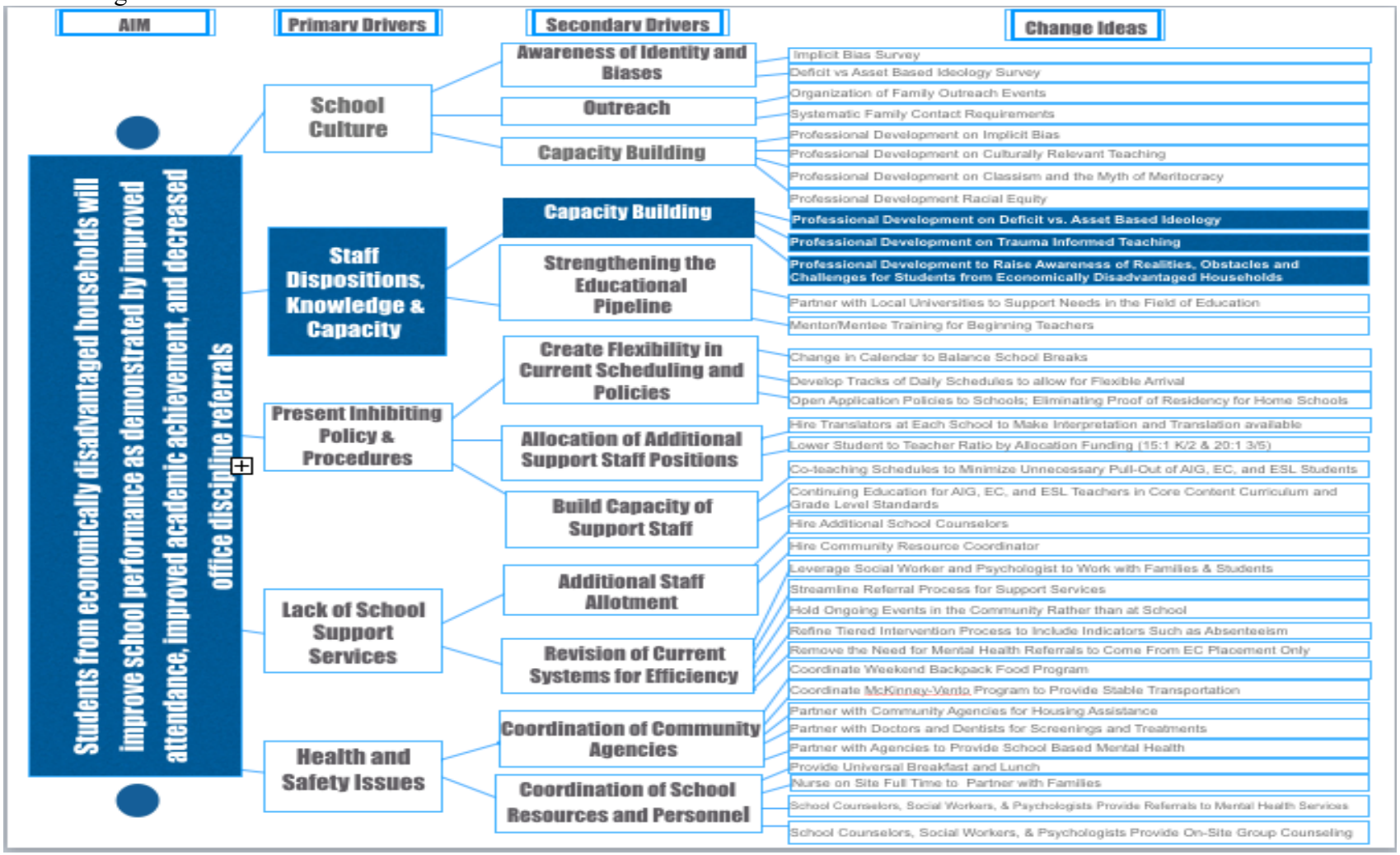
consequences, including physical health, academic, and behavioral implications. Children from economically disadvantaged households are disproportionately affected by trauma, as studies have shown traumatic incidents happen more frequently and consistently among those affected by poverty (Bradley & Corwyn, 2002). Trauma can take many forms, and effectively addressing its many effects is a daunting task. Understandably, many schools and classroom teachers are ill-equipped to handle childhood trauma, and students are often left to manage these situations independently.

As schools develop programs to support teachers' foundational knowledge of the challenges surrounding students who are economically disadvantaged, schools must also aid teachers in developing increased confidence in their ability to teach these students. This confidence, or self-efficacy, is grounded in the idea that human's self-perception of their ability to do something affects the success or failure of the outcome (Siwatu, Putman, Starker-Glass, & Lewis, 2017). Teachers who have higher efficacy are more likely to feel confident in their teaching of students who have behavior issues and even expectations of student behavior while the child is in their classroom. There is also support that the "construct of teacher efficacy" can prove valuable when gauging general teacher effectiveness (Gordon, 2001). A teacher may claim that students from an economically disadvantaged or otherwise culturally different household are challenging to teach, but often this problem arises when the teacher does not understand the relationship between culture and classroom behavior. A teacher who has higher self-efficacy in understanding their relationships will know when to choose alternative instructional practices (Siwatu & Starker, 2010).

Problem Statement and Causal Focus

A disproportionate number of students from economically disadvantaged households underperform in school as measured by school attendance, academic achievement, and office discipline referrals (Rusby & Taylor, 2007; Chang & Jordan, 2015). Figure 3 depicts an evaluation of the possible drivers and potential change ideas to reach our goal. After evaluating these drivers, our improvement focus will be to increase teacher dispositions, knowledge, and efficacy through capacity building on crucial issues surrounding supporting students who are economically disadvantaged.

Figure 3: Causal analysis overrepresentation of underperforming students from economically disadvantaged households



Aim of Work

The ultimate aim of this work is to improve student attendance rates and decrease student office discipline referrals through improving the knowledge, dispositions, and efficacy of teachers surrounding their work with students from economically disadvantaged households. We believe that building the capacity of teachers through professional development and coaching is a primary driver by which we can reach our aim. We chose to focus on building the capacity of teachers because this aligns with our belief that socially just educators can and should analyze and provide an improvement to internal systems and ideologies rather than finding and placing blame or fault on students and families. Building capacity of the teachers at Wolf Meadow Elementary School is within the locus of our control.

The Problem of Practice within the Local Context

Cabarrus County is a suburban county located in the south-central part of North Carolina established in 1792. Cabarrus sits north of Charlotte, North Carolina and was home to an estimated 206,872 people in 2017 (United States Census Bureau, 2010). According to the recent United States Census Bureau, the population of Cabarrus County continues to rise at rates of nearly two to four percent per year (United States Census Bureau, 2010). Cabarrus County is one of the fastest growing counties in North Carolina with a population increase of 16.2% from April of 2010 to July of 2017 (United States Census Bureau, 2010).

According to the 2010 United States Census Bureau Report, the majority of Cabarrus County's population are Caucasians, 74%, followed by African Americans at 18.5%, and Hispanics, at 10%. In 2016, the percent of persons age five and up who spoke a language other than English at home was 11.8%. Of the population twenty-five years and older, 88.9% are high school graduates, and 28.6% hold a bachelor's degree or higher.

In Cabarrus County, the median value of owner-occupied housing units was $171,000 between 2010-2016, and the percentage of persons living in the same house one year ago was 87.4% (United States Census Bureau, 2010). The rate of people living below the poverty line is 11.0% (United States Census Bureau, 2010). The public school system in Cabarrus County serves over 32,000 students. Cabarrus County School's mission is "Empowering students to build their futures." The vision for the school district is "Inspiring minds, engaging hearts, and shaping futures." Cabarrus County Schools successfully graduates 90% of its students and has been ranked #1 in the state of North Carolina for teacher effectiveness for three consecutive years (Cabarrus County Schools, 2018).

Cabarrus County Schools operates on a $300,000,000 budget and employees over 4,000 people, 2,400 of which are certified teachers (Cabarrus County Schools, 2018). The school system has 40 schools. There are 20 elementary schools, eight middle schools, and nine high schools. Additionally, there are three non-traditional schools. (Cabarrus County Schools, 2018). The school system boasts a variety of program choice within its schools. For the 2018-19 school year, ten schools have a science, technology, engineering, and math (STEM) focus, five schools offer an International Baccalaureate program, six schools have a Spanish Dual Language Immersion theme, and two have a Chinese/Mandarin Dual Language Immersion theme. There are also a Fine Arts and a Balanced Calendar magnet school within Cabarrus County. Additionally, each high school in Cabarrus County offers an academy focus including public safety, information technology, hospitality, engineering and agriculture, energy and sustainable automation, and health sciences (Cabarrus County Schools, 2018).

Cabarrus County Schools achieved a 95.4% school attendance rate during the 2016-17 school year. This rate is comparable to the state of North Carolina's school attendance percentage

of 94.6% (NC District Report Card, 2017). During the 2016-17 school year, elementary schools in Cabarrus County had a short-term suspension rate of 6.5 students per 100 (NC District Report Card, 2017). Of these 6.5 suspensions per 100 for elementary-aged students, 0.11 were criminal acts. This average is slightly lower than the state of North Carolina's 0.22 per 100 elementary-age student criminal acts. The district ranks 33 out of 100 counties in North Carolina in the percentage of students who score proficient in all End of Grade Assessments for 3rd through 12th grade. Figure 4 shows historical proficiency data for elementary schools in Cabarrus County (Cabarrus County Schools, 2018).

Figure 4: Cabarrus County Schools end of grade test proficiency

Grade	Subject	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
3rd	Reading	61.3%	65.5%	62.7%	59.1%	60.0%	55.3%	60.1%
	Math	66.6%	68.9%	67.0%	67.0%	66.3%	66.0%	67.7%
4th	Reading	61.3%	59.4%	64.2%	61.8%	59.6%	56.8%	58.2%
	Math	61.5%	58.4%	61.4%	62.0%	60.2%	60.5%	66.8%
5th	Reading	57.4%	57.8%	57.9v	60.6%	59.9%	56.3%	57.6%
	Math	58.5%	59.1%	61.5%	64.7%	64.1%	63.3%	67.7%
	Science	58.7%	62.7%	63.0%	74.4%	64.9%	71.1%	77.4%

Wolf Meadow is one of 20 elementary schools in Cabarrus County, with an enrollment of 600 students. Wolf Meadow is one of the smaller elementary schools as Cabarrus County average elementary enrollment is 713 students (NC District Report Card, 2017). Wolf Meadow Elementary School schedule is a balanced calendar. Students attend school approximately nine

weeks at a time beginning in mid-July, leave for a three-week intersession period, and then return to campus for another nine weeks. This year-round calendar has been in place at Wolf Meadow Elementary School since the 2016-2017 school year. In the 2018-2019 school year, Wolf Meadow Elementary School began its first year as a Dual Language Spanish Immersion school. Forty-two of the enrolled Kindergarteners opted into the Dual Language Spanish Immersion program for the 2018-19 school year.

One principal and one assistant principal lead Wolf Meadow. There are 29 classroom teachers, two English as a Second Language teachers, three Exceptional Children teachers, and two Speech-Language Pathologists, all 100% fully licensed. The school employs eight instructional teacher assistants and six additional instructional assistants utilized for tutoring or enrichment of classroom curriculum. Additionally, Wolf Meadow Elementary School has two Lead Teachers who coach and support teachers and students with academic curriculum and instruction. There is a Behavior Strategies Coach with a background as an Exceptional Children's Behavior Management Technician who helps teachers and students with behavioral interventions. The school has a Student Services team comprised of two, full-time counselors, a full-time community resource coordinator, a full-time school nurse, a part-time school social worker, and a part-time school psychologist. Clerical employees include two administrative assistants, one data manager, and a treasurer. There are also three full-time custodians, one with the designation of Head Custodian (Wolf Meadow School, 2018).

In the 2016-2017 school year, 51.1% of Wolf Meadow Elementary Students missed ten or more days of school. This attendance rate is markedly lower than North Carolina at 94.6 attendance percent and Cabarrus County Schools at 95.4% (NC District Report Card, 2017). The average number of short-term (10 days or fewer) out of school suspensions per 100 students at

Wolf Meadow Elementary School in the 2016-2017 school year was 20.2. This number is notably higher than the state of North Carolina with 7.6 suspensions per 100 students and Cabarrus County Schools at 6.5 per 100 students (NC School Report Card, 2017).

In 2016-2017, Wolf Meadow served 603 students in grades K-5 and scored a D on the North Carolina School Report Card (NC School Report Card, 2017). During the 2017-2018 school year, the school had 610 students and scored a C on the North Carolina School Report Card (NC Report Card, 2018). Figure 5 shows historical proficiency data for Wolf Meadow Elementary School (NC School Report Card, 2018). Figure 6 depicts the discipline and attendance data for Wolf Meadow Elementary (Wolf Meadow Elementary School Data Portal, 2018).

Figure 5: Wolf Meadow Elementary end of grade test proficiency

Grade	Subject	2014-15	2015-16	2016-17	2017-18	2018-19
3rd	Reading	54.7%	51.1%	41%	40.7%	43%
	Math	73.8%	69.6%	59%	72.2%	55%
4th	Reading	35.1%	39.4%	45.8%	32.7%	44%
	Math	46.8%	54.9%	51.5%	46.4%	57%
5th	Reading	37.1%	41.4%	35.8%	45.7%	36%
	Math	45.7%	60.9%	42.7%	73.3%	56%
	Science	72.9%	79.3%	67.1%	73.3%	70%

Figure 6: Wolf Meadow Elementary discipline and attendance data

	2015-16	2016-17	2017-18	2018-19
Office Discipline Referrals per 100	45.5	73.2	61.1	75.6
Suspension Rates per 100	14.2	20.2	19.5	27
Rate of Students with more than 10 Absences	31.1%	51.1%	38.9%	23.2

Theory of Improvement

Our theory of improvement held that improving teacher dispositions, knowledge, and efficacy to meet the academic and social/emotional needs of students from economically disadvantaged households would increase school performance. Although, "all children can learn" has become a mantra publicly espoused by educators, the work of scrutinizing the fair practices and dismantling biased ideology embedded in schools is not yet complete. To begin this work, we must challenge the entrenched beliefs of teachers while building their knowledge and efficacy to create the space where all children have the opportunity to learn (Mayfield & Garrison-Wade, 2015).

Our project sought to further schools as primary vehicles for social justice by increasing teachers' capacity to support students from economically disadvantaged households. Our change ideas included developing teachers' knowledge and efficacy in the following areas: (a) trauma-informed teaching practices; (b) deficit-based versus asset-based ideology; and (c) the realities, obstacles, and challenges for students from economically disadvantaged households. All improvement involves change, but not all change results in improvement. Opportunities for change should be examined purposefully, and implementation is about making this change an integral part of any system (Langley, Ronald, Nolan, Nolan, Norman, & Provost, 2009). The

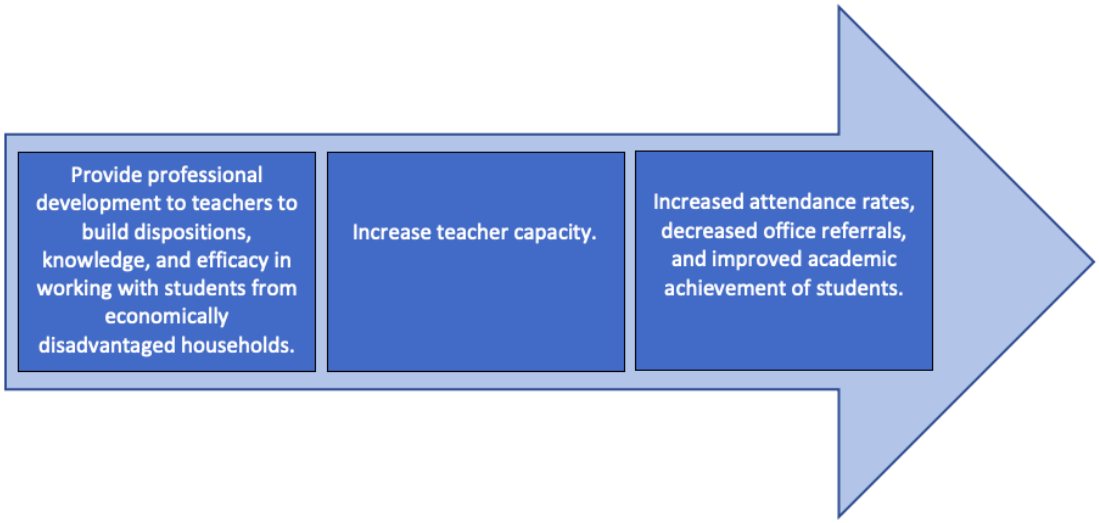
researchers believed focusing on this professional development would bring improvement to teacher's dispositions, knowledge, and efficacy. The change ideas listed above drove our intermediate aim of increasing levels of student achievement as measured by increased attendance, improved academic performance, and decreased office discipline referrals.

Ideally, this project aimed to increase the graduation rate for students from economically disadvantaged households. Nationally, in 2012 the combined graduation rate climbed above 80%, though states on average saw students from low-socioeconomic status graduate at a rate of 15.6% below their wealthier peers. In North Carolina, 75% of low-income students graduated, compared to 84% of non-low-income (U.S. Department of Education, 2014). Decreasing dropout rates among students from economically disadvantaged households would remove a significant barrier to combat income inequality and restricted social mobility currently facing individuals seeking to elevate from poverty.

Improvement Methodology

After analyzing a variety of drivers for change, we chose to focus on developing the dispositions, knowledge, and efficacy of teachers. The improvement initiative included formal professional development and opportunities for coaching provided to all teachers at Wolf Meadow Elementary School. The professional development addressed: (a) trauma-informed teaching practices, (b) deficit-based versus asset-based ideology, and (c) the realities, obstacles, and challenges for students from economically disadvantaged households. We analyzed the outcome of this improvement project by measuring the level of change in teachers' dispositions, knowledge, and perception of their ability to utilize the knowledge they gain through the process. Figure 7 depicts the progress of this theory of improvement from initiative to aim.

Figure 7: Initiative-to-aim progression



Extant Literature Related to the Improvement Initiative

The formalized, research-informed support processes for Wolf Meadow Elementary School included providing ongoing professional development to build capacity, efficacy, and knowledge in teachers working with students and families from economically disadvantaged homes. This section outlines the literature that supported these processes.

Professional development.

Systematic professional development programs are designed to change teachers' classroom instructional practices, as well as teachers' attitudes and beliefs. Guskey's (2002) model of teacher change played out the following sequence for change to occur: 1) professional development, 2) change in teachers' classroom practices, 3) change in student learning outcomes, and 4) change in teachers' beliefs and attitudes. Change in beliefs is the fourth step in the process. For beliefs to change, Guskey asserted teachers need first to witness a change in a student's learning outcomes. Therefore, the professional development around the capacity building at Wolf Meadow was designed to span the entire improvement initiative. Iterative cycles of professional development were implemented to allow for the change in beliefs.

Asset versus deficit-based ideology.

Gorski defined deficit ideology as ". . . A worldview that explains and justifies outcome inequalities – standardized test scores or levels of educational attainment, for example – by pointing to supposed deficiencies within disenfranchised individuals and communities" (Gorski, 2011). When this deficit ideology shapes school thinking, teachers respond to the 'problem' of the 'social-economic gap' by employing a deficit perspective, and as a result, demonstrate lower expectations of students from low-incomes (Gorski, 2011). Therefore, research considerations when designing professional development opportunities for staff members included acknowledging and addressing deficit ideology.

The ideology teachers have about students from economically disadvantaged homes impacts their efficacy. Teacher efficacy is the teachers' confidence in their ability to promote students' learning (Hoy, 2000). The concept of teacher efficacy, as well as the impact efficacy has on student achievement, began when Armor et al. (1976) asked teachers to share their degree of agreement or disagreement with the following statements: "When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment," and "If I try really hard, I can get through to even the most difficult or unmotivated students" (p.73). Growth in efficacy on this pretest to posttest occurred. A decrease in the belief that teachers indeed can't do much resulted in increased student achievement (Armor et al., 1976).

Trauma-informed teaching practices.

One such challenge students who live in financially poor communicates face is the increased frequency to which they are exposed to a range of traumas and losses affecting individuals, families, and schools (Abramovitz & Albrecht, 2013). Living in communities with

high rates of poverty can expose all children, regardless of race or culture to additional stressors (Blitz, Yull, & Clauhs, 2016). These stressors include larger numbers of residents who have endured unemployment, loss of life due to murder, suicide, and accidents, incarceration, foster-care placement, and eviction or foreclosure to name a few. These traumatic losses create challenges for all members of these communities including children. Exposure to ongoing stressors can impact a child's ability to cope (Blitz, Yull, & Clauhs, 2016). Children exposed to traumatic events also display higher rates of depression, anxiety disorders, and other impairments (Copeland, Keeler, Angold, & Costello, 2007).

Student exposure to multiple traumas has also been linked to academic and behavioral issues in the school setting (Judicial Council of California, 2014). Research has shown childhood exposure to trauma can have a detrimental impact on a child's brain development, regulation of emotions, attachment, and cognitive and behavioral functioning (Judicial Council of California, 2014). Currently, the most frequently used model in schools to address trauma is incident-specific (Trauma Responsive Educational Practices Project, 2018). School counselors are called for specific incidents and often for only highly publicized events (Trauma Responsive Educational Practices Project, 2018). More than half of students enrolled in public schools have faced trauma or have had adverse childhood experiences (Felitti & Anda, 2009), and there is a growing body of research indicating that adverse childhood experiences (ACEs) often have lasting effects on relationships, health, and well-being into adulthood (Shonkoff & Garner, 2012).

At the same time, there is research to show that children are resilient. When given the right environment, conditions, and interventions, the severity of the impact of trauma can be reduced (Kempermann & Gage, 1999). Reformation is needed to help schools and teachers to

provide the environment, conditions, and interventions to support students experiencing trauma. Teachers and school employees need the training to be trauma responsive. Trauma-informed practices prepare teachers for using proactive and restorative practices that can help a student build self-regulation rather than reverting to punitive punishments for student behaviors (Trauma Responsive Educational Practices Project, 2018). Strategies such as teaching specific social and emotional skills to encourage children to practice self-regulation, maintaining a predictable environment, and setting clear boundaries can help build the resiliency children need to thrive in school despite experiencing adverse childhood experiences or trauma. Providing quiet areas in a classroom, teaching mindfulness or calming techniques, and providing sensory materials such as fidget toys or weighted blankets can also help children who have been affected by traumatic events (Terrasi & Galarce, 2017).

Trauma-informed schools understand that trauma can create challenges in the cognitive, behavioral, and emotional development of children (Shonkoff & Garner, 2012). Schools that utilize a trauma-informed pedagogy teach self-determination and resilience (O'Connor, Mueller, & Neal, 2014). Disproportionate outcomes for students from economically disadvantaged households can be understood as manifestations of inadequate responsiveness to students' trauma (Blitz, Yull, and Clauhs, 2016).

Teacher efficacy.

Repeatedly, an increase in teacher efficacy has been found to increase student achievement (Eells, 2011). In the meta-analysis Eells conducted, collective teacher efficacy yielded an average effect size on student achievement ranging from 0.537 to 0.628 (Eells, 2011). We know definitively that collective efficacy impacts student achievement in dramatic ways.

Collective efficacy is concerned with the performance capability of a social system as a whole (Bandura, 1997). For schools, collective efficacy refers to the perceptions of teachers in a school that the faculty as a whole can execute the courses of action necessary to have positive effects on students. The staff that works in a school with a strong culture of can-do, a common belief that the team at this school can make a difference, are more likely to accept challenging goals. Additionally, teachers working in can-do cultures are less likely to give up when working with challenging students. In contrast to this, teachers who work in a school with a low level of collective efficacy are less likely to accept responsibility for low student performance. Teachers in schools with a low level of collective efficacy are more likely to blame poor student performance on factors such as socioeconomic status, parent involvement, and limited English proficiency (Bandura, 1997).

Staff learning in a professional community is more effective than traditional professional development methods (Stewart, 2014). Professional development has been demonstrated to be more successful when learners work collaboratively. Additionally, adult learners need professional development to be active rather than passive (Stewart, 2014). The research informed improvement initiative implemented at Wolf Meadow Elementary school included these best practices in capacity building professional development design.

Improvement Initiative Design

The improvement initiative was formal research-based training and individual coaching for teachers at Wolf Meadow Elementary School to build their capacity in working with students from economically disadvantaged households. The professional development addressed: (a) trauma-informed teaching practices, (b) deficit-based versus asset-based ideology, and (c) the realities, obstacles, and challenges for students from economically disadvantaged households.

Additionally, teachers had access to but were not required to complete optional coaching support from the on-site Community Resource Coordinator.

Experts in the content who were not the researchers, or a part of the design team provided the professional development. One researcher acted as participant-observer during the professional development sessions to eliminate bias in content delivery and analysis. The second researcher was not present during the professional development sessions as she works in a different location.

Building staff capacity and efficacy while working with students and families from economically disadvantaged households utilized training aimed to shape ideology as well as skill. The belief outcome of this process focused on increased teacher understanding that students and families from economically disadvantaged households are as varied as any other cohort of students and that a teacher's perception of students can impact school achievement positively or negatively. Training and coaching were designed to produce an increase in teacher knowledge and efficacy when working with students from economically disadvantaged households.

A team of district leaders, school administrators, teachers, and school support staff comprise the design team for this improvement initiative. Together, they worked to finalize the proposed design of the improvement initiative, providing feedback to ensure this effort met the needs of students within Wolf Meadow Elementary School and in Cabarrus County Schools. This design team also oversaw the implementation of the training and coaching of the staff at Wolf Meadow. In addition to the researchers, the design team was comprised of the Superintendent of Curriculum and Instruction for Cabarrus County Schools, the Community Resource Coordinator, the Instructional Technology Facilitator, and a Lead Teacher, all from Wolf Meadow Elementary School.

The implementation of this research project began upon approval of this proposal and approval from Western Carolina University's Instructional Review Board (IRB). All teachers on staff participated in the full series of staff development sessions, but participation in the study was entirely voluntary. All teachers regardless of participation in the study received continuing education credits. Teachers who chose to participate in the study completed consent forms before the first survey was delivered. The study did not collect any identifiers, and participation was explicitly voluntary.

The improvement initiative began with initial data collection in May through July of 2019, to incorporate current teachers as well as new hires for the 2019-2020 school year. Figure 8 illustrates the outline of the chronology of actions throughout the improvement initiative.

Figure 8: Implementation of the timeline

Improvement initiative personnel changes.

From initial IRB approval to the improvement initiative's completion, three personnel changes at Wolf Meadow Elementary school were noteworthy with regards to this project. One of the researchers, who began the project as the Assistant Principal of Wolf Meadow Elementary School and the direct supervisor of participants, changed jobs in June of 2019. This move to a nearby school in Cabarrus County allowed for continued participation in the improvement initiative but removed the relationship as supervisor of the participants. The lead teacher, who had a specific role in the IRB upon approval of this project, also changed positions. In June of 2019, the lead teacher became the assistant principal at Wolf Meadow Elementary. This change moved the former lead teacher into a supervisory position. Because of this, we modified her participation in the project. The new assistant principal did not complete member checks as initially designed. The new assistant principal served only as a participant in the staff development sessions. She did not participate in, nor was she present while member checks were conducted. A teacher became the lead teacher at Wolf Meadow Elementary in June of 2019. With this supportive role, the new lead teacher volunteered to complete research ethics and compliance training through the CITI Program platform and complete the member checks utilized after each thirty-day cycle. Upon approval by design team members and our disquisition chair, we determined these changes in roles and responsibilities to be the appropriate way to address personnel changes occurring after the initial IRB timeline approval.

Evaluation of Improvement Methodology and Data Collection

The researchers chose the work of Langley, et al. (2009) to model our improvement efforts. The researchers followed the framework of the improvement cycle throughout our

research. The Model for Improvement is based on three fundamental questions: 1) what are we trying to accomplish? 2) how will we know that a change is an improvement? and 3) what changes can we make that will result in growth? We measured this change as an improvement if teachers' dispositions, knowledge, and efficacy increased as measured by multiple methods of evaluation including self-evaluation, surveys, researcher analysis.

Mixed methods were used to collect and evaluate data. Prior to any faculty training or discussion on the topic, a preliminary survey (Appendix A) was delivered to participants through Western Carolina University's Qualtrics software. The survey was accessible through a computer or hand-held device, and the data was used to determine a baseline measurement for teachers' beliefs about asset and deficit-based ideology, impressions of people who live in economically disadvantaged households, and how to utilize a trauma-informed pedagogy. Approximately one-third of the total questions focused on each of the three main areas of the study. The survey was adapted from the combined works of Elizabeth Anderson and Lisa Blitz's (2015) work on trauma-informed teaching approaches, Amy Varga's (2017) work surrounding strength and deficit-based thinking, and the combined work of the National Public Radio, Kaiser Family Foundation, and the Kennedy School of Government at Harvard University's National Survey on Poverty in America (2001). There were no identifiers to allow the researchers to ascertain the identity of the person taking the survey. This was especially important in this specific action research project, as one authors of this paper was the participants' direct supervisor.

An identical survey was delivered at the end of the study with one additional question added (Appendix B). This new question asked if the teacher participated in coaching sessions provided by the Community Resource Coordinator (CRC). The CRC had logs (Appendix C) to

show the number of times a participant requested help and the topics of discussion. There were no identifiers in order to keep the experience anonymous.

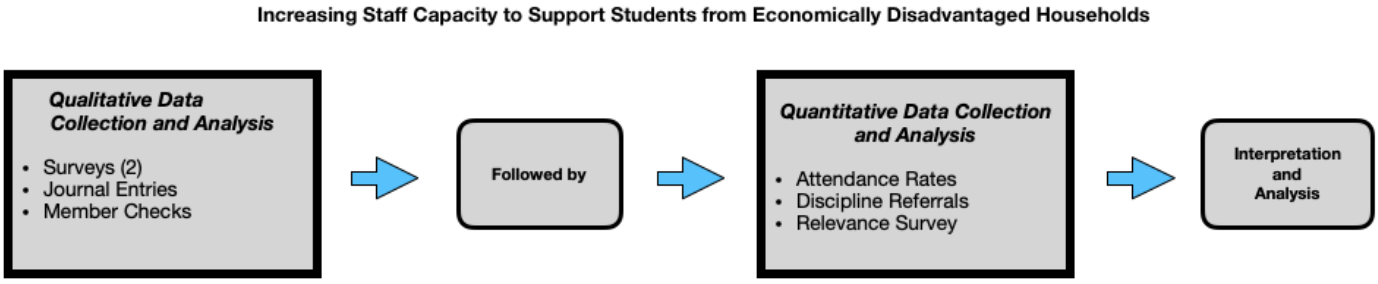
Since there are no identifiers, data collected did not measure individual participant's change from beginning to end of the improvement cycles. Instead, each survey question was given a nominal value. Each question's mean was calculated and compared between initial and final surveys.

At the conclusion of each training segment, formative evaluation through informal journal entries was captured through open-ended questions using the same Qualtrics software, for continuity (Appendix D). These journals asked participants to communicate parts of the training they found surprising, new knowledge, and clarifying questions. Journal entries were coded twice, both inductively to allow patterns and themes to emerge organically from participants' answers and deductively through the presenters' lens, to focus on participant accuracy and understanding of the topic being trained (Creswell, 2005). Discovering initial trends among data that surfaced through initial coding allowed for further exploration and adjustments to studies (Saldana, 2013). The researchers secured the exit tickets to ensure accuracy and data validity.

Member checks (Langley et al., 2009), occurred at the end of each training cycle (Appendix E). After coding the journal entries and exit tickets to evaluate themes and suppositions from the data, the design team provided the lead teacher, who had a supportive, rather than an evaluative role in the school, a basic summary of the data collected, along with a brief description of what we believed the data suggested. The lead teacher discussed those themes at grade-level Professional Learning Community meetings as a validation measure to substantiate the information previously collected by the researchers. The Lead Teacher sought to

arrive at a group consensus about the accuracy of the researchers' perceptions. Figure 9 offers a visual overview of the evaluative design model.

Figure 9: Evaluative design model



Monitoring student academic achievement data through the end of grade testing was a summative measure, but due to lack of timeliness in score reporting, this measure was not collected until after the project was completed. That lack of test result timeliness does not indicate lesser importance in academic growth. Our ultimate aim was to raise academic achievement for students who come from economically disadvantaged families and to improve teacher dispositions surrounding their work involving these students. We believe this effort will have relevance for many years to come.

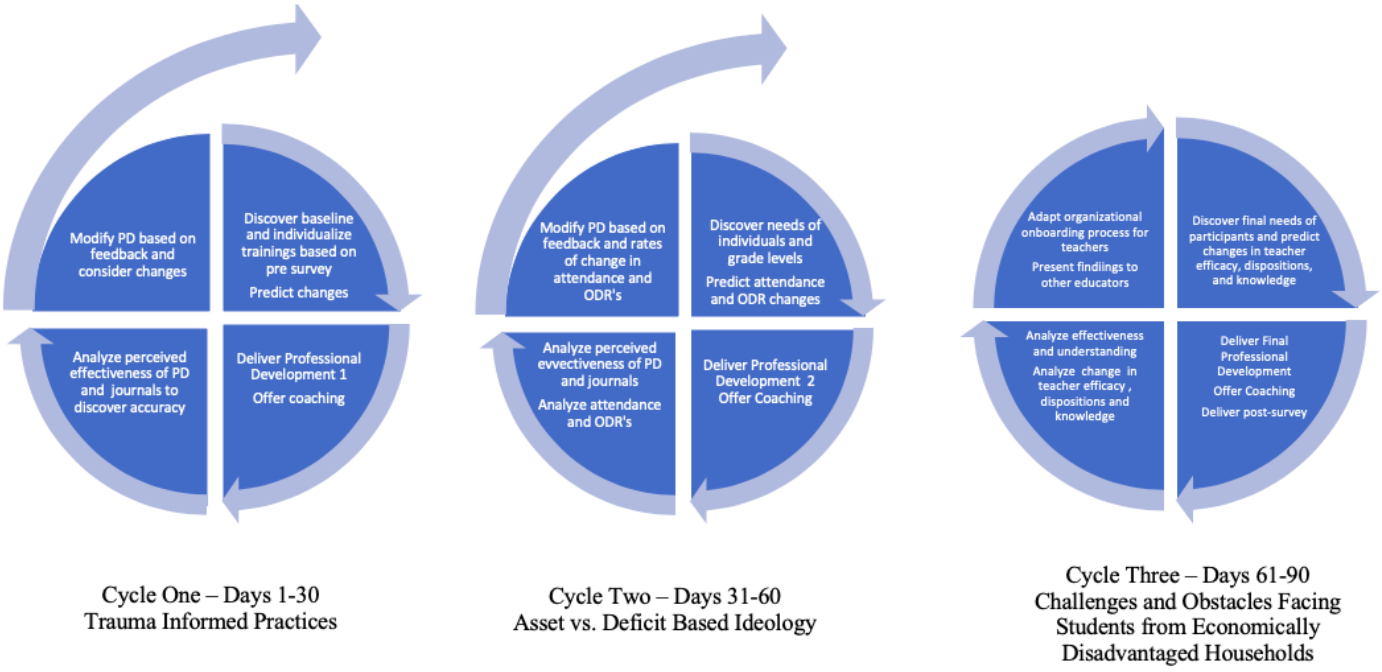
Formative Evaluation of Improvement Methodology

Improvement comes from action; from developing, testing, and implementing changes (Langley et al. 2009). *The improvement guide: A practical approach to enhancing organizational performance*, Langley et al.'s (2009) outlines the foundation of the model to develop, test, and implement changes. This model is based on three fundamental questions: 1) What are we trying to accomplish? 2) How will we know that a change is an improvement? 3) What changes can we make that will result in improvement? (Langley, et al, 2009). The design

team used these three questions along with PDSA cycles to form the basis of the improvement model.

The three fundamental questions of improvement science are combined with the Plan-Do-Study-Act (PDSA) Cycle to form the basis of The Improvement Model (Langley et al., 2009). We used three PDSA cycles as our formative evaluation method throughout the implementation of the capacity building improvement initiative. Each PDSA cycle began with planning a professional development training session each representing one of three cycles of improvement: (a) trauma-informed teaching practices; (b) deficit-based versus asset-based ideology; and (c) the realities, obstacles, and challenges for students from economically disadvantaged households; each cycle lasted approximately 30 days. Figure 10 illustrates the three PDSA cycles.

Figure 10. The Three Plan Do Study Act Cycles



As a balancing measure, teachers completed a two-question survey about stress and time management (Appendix F) at the beginning, the middle, and again at the end of the improvement initiative. The first was a baseline measure, and the last was given upon completion of all three cycles. This survey measured the impact the new practices are having on time management and instructional time using a five-point Likert scale assuming a score of one represents no job stress at all, and a five represents the maximum job stress. The same scale was used for the second question asking about job-related time-management. In the initial design of the improvement initiative, the survey was scheduled to be given an additional two times. In the middle of the first thirty-day improvement cycle, members of the design team decided to reduce the number of surveys given to minimize the total number of surveys participants were asked to complete.

Outcome measures (Langley et al., 2009) evaluated the fidelity of the implementation as well as the increase or decrease of attendance rates (Appendix G) and office discipline referrals

(Appendix I) during the study. These data were analyzed to inform us about the effects of the training on the classroom experience from a school-wide lens.

For the next stage, the Do phase of the PDSA cycles, training and coaching were implemented, and data and observations were collected. Participants rated the relevance of each training session on their teaching practice using a one-question Qualtrics survey asking the participant to self-measure the relevance on teaching practices (Appendix K). A five-point Likert scale was used to measure from little relevance to most relevance possible. Sign-in sheets were collected at each session for fidelity purposes (Appendix H).

During the Study phase of the PDSA cycle, all data collected was reviewed and analyzed by the design team. Next, during the Act phase of each PDSA cycle, the design team suggested changes and determined the next steps for the following PDSA Cycle. As part of improvement science, the PDSA Cycle is iterative, meaning the cycles will continue throughout the timeline of the improvement initiative. Our project included three PDSA cycles. Each cycle spanned approximately thirty days of the improvement initiative.

Formative Evaluation Process

Throughout the implementation of the shifting perspectives improvement initiative, the design team formatively assessed the feedback provided by participants after each professional development (PD) session. We responded to the data as it was analyzed through an improvement science lens using the Plan-Do-Study-Act (PDSA) cyclic model (Langley et al., 2009).

Process measures. Process or fidelity measures were collected during each cycle. The attendance of faculty was recorded at each session as a fidelity measure. It is important to note that the staff was never asked to acknowledge their choice to participate or not to participate in the research project. All certified staff members were required to attend all professional

development sessions and were given continuing education credits for the work, but the survey was only discussed as an optional component. Attendance records were collected and kept in a locked drawer in the researcher's office at Wolf Meadow Elementary School. An additional process measure, a survey question regarding the participant's impression of the professional development effectiveness was recorded and analyzed using the Qualtrics program through Western Carolina University. Participants were able to give their impression of the effectiveness using a Likert scale measuring most effective to least effective represented by the selection of a number one through five.

At the end of the session, all participants were offered the opportunity to continue their participation in the study by completing a short formative survey asking three open-ended questions. This survey served as a process measure for the improvement initiative. To measure what information participants gleaned, the researchers asked the following questions: 1) What are three things you learned from this session? 2) What are two questions you have now? 3) What is one thing that surprised you from the training? (Appendix D). This data was collected, coded, and analyzed each time participants completed a PD session.

Balancing measures. In order to balance the welfare of the participant against the work of the researcher, balancing measures were created to ensure teachers new learning did not interfere with their regularly scheduled responsibilities; but rather increased their well-being or maintained the same level of psychological and physical safety within their employment (Langley et al., 2009). The balancing measure was a survey that asked two questions focused on stress level and time management using a five-point Likert scale describing least to the most stress and ability to manage time on a scale from one to five. The research began with a balancing measure to identify how much stress and time management was or was not a problem

for the participants. This served as a baseline to see if stress and time management was affected by the study. The mean stress score was 3.36 out of 5 and the mean baseline time management score was 3.0 7 out of 5. This appears to indicate that teachers had some level of stress prior to the research beginning.

Professional Development Session 1: Plan-Do-Study-Act Cycle 1

Plan. Prior to the first professional development session (PD), the researchers collaborated with the presenters to plan the focus and content for all sessions. All certified staff members at Wolf Meadow Elementary School participated in three PD sessions designed to support teachers' understanding of trauma-informed teaching practices, deficit-based versus asset-based ideology, and the realities, obstacles, and challenges for students from economically disadvantaged households.

Do. During the do phase of the first PDSA cycle, PD for teachers occurred. The first PD session was held on July 15, 2019. Teachers attended a six-hour session delivered by the Director of Student Services for Cabarrus County Schools, a licensed counselor and social worker who serves as the Mental Health Coordinator for Cabarrus County Schools, and the Director of Student Safety and Well-being for Cabarrus County Schools. Content for this session focused on trauma-informed teaching practices. The content of this PD was adapted from the Reconnect for Resilience training (https://www.resourcesforresilience.com). This training is a part of the Resources for Resilience program (https://www.resourcesforresilience.com). Resources for Resilience was formed in response to the public health crisis of adverse childhood experiences (ACEs). Adverse childhood experiences (ACEs) refer to the prolonged exposure of children to potentially traumatic events that may have an immediate and lifelong impact (Felitti et al., 1998). Resources for Resilience seeks to address the ongoing stress and trauma that many

face every day. They offer practical strategies intended for anyone to use as we work to prevent future adversity and help people stay healthy and connected during tough times. The goals of this six-hour PD session included understanding how trauma impacts the body and brain and learning strategies to reconnect with your body's natural capacity to reset its nervous system. The presenters shared tools classroom teachers could use to support everyone's capacity for wellbeing.

Study. Miles, Huberman and Saldana (2014) advised interweaving data collection and analysis from the very start of research. Waiting until all data is collected to begin analysis rules out the possibility of collecting new data to fill in any gaps. Waiting may also discourage the formation of rival hypotheses that question our assumptions as scholar-practitioners. Furthermore, interweaving data collection and analysis throughout the improvement initiative allows us to cycle back and forth between thinking about the existing data and generating strategies for collecting new, often better data.

Saldana (2013) divided coding into two major stages: First Cycle and Second Cycle coding. First Cycle coding methods are codes initially assigned to the data chunks. We generated descriptive codes through an analysis of the learning and remaining questions participants reported in the exit survey. These descriptive codes assigned labels to this data to summarize the basic topics of similar responses (Miles, Huberman, & Saldana, 2014). After the first professional development session, we used an inductive coding process to code each response to question number four and five on the exit survey. Following this initial cycle, we began the second round of coding.

Second round coding: Question four, professional development session one. Second round coding is a way to group those summaries from the first round of coding into a smaller

number of categories. These pattern codes are explanatory and identify themes (Miles, Huberman, & Saldana, 2014). The descriptive pattern codes we assigned through inductive second round coding of question number four from the survey: (a) strategies to use with students and adults, (b) how the brain works, (c) significance of compassion and empathy, and (d) shame versus guilt. This data is presented in Table 1.

Table 1

Summary of Pattern Codes PD Session 1 Question 4; What three things did you learn?

Themes	Responses coded (N=71)
Strategies to use with students/adults	28
How the brain works	26
Significance of compassion and empathy	07
Shame versus guilt	07

Note. N= the number of responses reported by participants. Each respondent was asked to share three things learned. Some respondents shared less than three.

Strategies to use with students/adults. The most common response to the question of what did you learn asked in the exit survey after PD session one was coded under the theme of strategies to use with students and/or adults. As schools develop programs to support teachers' foundational knowledge of the challenges surrounding students who are economically disadvantaged, they must also aid teachers in developing increased confidence in their ability to teach students (Siwatu, 2017).

Teachers knowing specific strategies to use with students will build their confidence in their ability to teach these students. Of the seventy-one items learned participants shared, twenty-eight were coded under the theme of strategies to use with students and/or adults. For example, one participant shared, “I learned new strategies to incorporate into my classroom to help calm

children and get them back into their resiliency zone." Another participant commented, "I learned about rapid ways to help bring students back to a thinking brain space." Armed with specific strategies to utilize, teachers can develop confidence in their ability to support all students.

How the brain works. A primary focus of the first PD session was to share how your body and brain work in response to stress and trauma. Participants learned how the brain is organized as well as how the autonomic nervous system fuels survival responses in the body (Harvard Health Publishing, 2018). Of the seventy-one responses participants gave when asked to share three things they learned, twenty-six related in some way to the brain, how it works, or parts of the brain and their responses. For example, some participants stated topics such as "trauma on the brain." Other participants synthesized information learned about the brain; "The impact of trauma on a person's brain and how it may affect their ability to create relationships." Participants shared learning about the brain that was eye-opening, "I also learned that when the amygdala is triggered your thinking brain turns off this makes complete sense and was an eye-opener" and "it was interesting learning about how the brain grows from the inside out so very young kids are not going to have a thinking brain yet." The information shared about the brain, how it works, and the impact trauma has on the functioning brain was the beginning content of this learning. With twenty-four participants responding between one and three things learned, twenty-six responses were coded under the descriptive theme of how the brain works.

Significance of compassion/empathy and shame versus guilt. Adverse childhood experiences (ACEs) often last a lifetime. One way to help children heal is through safe, nurturing, stable relationships. Compassion and empathy are needed for teachers to build nurturing relationships with their students (https://www.resourcesforresilience.com).

Furthermore, we know that shaming students for strong reactions, outbursts, or negative behaviors can be a barrier to these connections. Shame is defined as an intensely painful feeling or experience of believing we are flawed and therefore unworthy of acceptance and belonging (Brown, 2007). In response to question number seven responses reported ideas coded within the theme of connection and empathy. Another seven responses were coded within the theme of shame versus guilt. One participant shared, "I learned the true difference between sympathy and empathy." Another reported learning, "sometimes we try to find a silver lining rather than truly connecting and empathizing with others." Some participants connected these ideas with the work they do as teachers. For example the response, "compassion and empathy are essential when helping a student or staff member in need" showed this connection. Teachers also reported, "I learned the difference between guilt and shame," and were able to connect this idea as important when working with students who have experienced or are experiencing trauma; "In order to help our students with high ACE scores, we do not need to shame them."

The concept that guilt is a focus on behavior while shame is a focus on self gives teachers a concrete purpose for changing language and interactions when supporting students who have made mistakes. Teachers knowing that compassion and empathy are essential for connection can create conditions for trauma-informed pedagogy to flourish.

Second round coding: Question five, professional development session one. We categorized the questions that remained for participants after PD session one for two reasons. The first analysis of these questions gave researchers insight into what ideas or concepts lingered in the minds of the participants. Second, the questions provided an opportunity to inform the content of the second PD session. Participants shared thirty-three questions that remained after the first PD session. Second round coding continued through analysis of the questions that

remained for participants. We clustered and coded the questions with the following themes; (a) questions that revealed a desire to understand how to implement the strategies, (b) questions that revealed a desire to understand more on the topic, and (c) questions that revealed a desire/need to fix. Table 2 displays the frequency responses were coded with each theme.

Table 2

Summary of Pattern Codes PD Session 1 Question 5; What two questions remain?

Themes	Responses coded (N=33)
Questions that revealed a desire to understand how to implement the strategies	28
Questions that revealed a desire to understand more on the topic	26
Questions that revealed a desire/need to fix	07

Note. N= the number of responses reported by participants. Each respondent was asked to share two questions they still had following the PD. Some respondents shared less than two.

Questions that revealed a desire to understand how to implement the strategies. Of the thirty-three questions respondents shared, twenty-eight expressed a desire to understand how to take this information into the classroom and/or how to implement the strategies taught. “What would be a good way to introduce this tool with my students? It seems like a great tool, but I want to be able to use it effectively.” Another participant wondered, “I am still struggling to determine how strategies can be implemented in brief time spans with students (for example morning and afternoon meetings).” Some of the ‘how to implement’ responses also revealed

participants questioning how to fit the strategies into their day to day work with many students. For example, “What is the best approach to use during a classroom setting with many kids.”

Questions that revealed a desire to understand more on the topic. The theme that emerged with the second greatest frequency revealed a desire of the participants to learn more or understand more about trauma and trauma-informed teaching practices. For example, “How are these strategies to be best applied when working with a whole group?” These questions expose some teachers’ desire to do this work, but still viewing this work as extra, an add-on, or something that would need much more time.

Questions that revealed a desire/need to fix. A smaller yet important emergent theme revealed some educators’ continued need to fix things. For example one participant stated, “I understand that the point is to get students to calm down enough that they can turn their thinking brain back on, but in many cases, the "problem" still wasn't solved. I want to know how to also help them solve the problem.” During this PD session, presenters led specific conversations around what compassion is and what it is not. Resources for Resilience (2018) defined compassion as showing concern, offering understanding and kindness when you or someone else fails or makes a mistake, realizing suffering, failure, and imperfection go with all of us being human, developing goodwill versus judgment, and offering presence without trying to “fix it.” Responses such as “ . . . I want to know how to also help them solve the problem” gives us clues that the remaining PD should continue to explore compassion. Compassion is not a relationship between the healer and the wounded. It's a relationship between equals (Chödrön, 2002). Seven of the thirty-three participant responses held the tone of fixing things for students. Indicating to the researchers that more PD needs to be done to shift teachers’ perspectives in developing authentic compassion needed for trauma-informed pedagogy.

Attendance. During the pre-planning phase, the design team determined attendance would be monitored weekly throughout the improvement initiative. Table 3 shows the attendance recorded for the first 30-day cycle using the school-wide attendance quick check protocol.

Table 3
Summary of Weekly Attendance Protocol for Cycle 1 of the Improvement Initiative

	% of students absent			Since last check	
Dates	1 day	> 3 days	= 5 days	Improved	Declined
7/22-7/29	3.7	0.17	0		
7/29-8/2	4.6	0.53	0.17		yes
8/5-8/9	5	0.35	0.35		
8/12-8/16	5.3	0.89	0.35		

Note. Percent calculated based on 560 total student population. 560 is the average daily enrollment from July 2019 to November 2019.

After utilizing the school-wide attendance quick check protocol (Appendix G) for the first 30 days of the improvement analysis, members of the design team determined changes were needed in the attendance collection protocol. Researchers noted that collecting data weekly was not consistent with the way in which data was reported by the district in the previous school year. In the 2018-2019 school year, average attendance rate and average absence percentages were reported monthly. To compare attendance rates before, during, and after the improvement initiative attendance consistently, monthly percentages were needed. We also noted the question, "has attendance improved or declined since the last check-in?" proved difficult to answer in one

word. Sometimes the number of students who missed one day increased while the number of students who missed three or more days declined. Finally, researchers noticed a number of students who were missing three or more consecutive school days with a weekend in between consecutive school days. The school-wide attendance quick check protocol was not written in a way that captured this information. Members of the design team decided to change the school-wide attendance check protocol monthly rather than weekly (Appendix H). Table 4 shows the revised data collection protocol.

Table 4

Cycle 1 School-wide Attendance Quick Check Protocol Revised

Month	Absent rate percentage	
	2018	2019
July	3.2	2.7
August	4.4	5.2

Note. Percent calculated based on 560 student enrollment for 2019 and 580 student enrollment in 2018.

Office discipline referrals. Wolf Meadow Elementary School utilizes a Positive Behavior Intervention Support (PBIS) system as part of the Multi-Tiered Systems of Support (MTSS). PBIS is an evidence-based three-tiered framework for improving and integrating all of the data, systems, and practices affecting student outcomes every day. PBIS is a model to address student behavior through systems change (https://www.PBIS.org). Behavior universal expectations are taught, modeled, and practiced by all students. Supplemental instruction and support is provided to some students who need additional teaching to be successful. Intensive support is provided to

a few students who have not yet found success with their behavior. The PBIS system works to create consistency through norms across classrooms and across the school. Wolf Meadow uses consistent language for what constitutes a minor versus major behavior classification. These definitions assist teachers in making decisions about whether negative student behaviors should be classroom managed (minor) or if the behavior should result in an office discipline referral (major).

Poverty can increase stressors on a child and his or her family, which may in turn increase the risk of poor behavioral outcomes. This combined with unexamined class bias by teachers can lead to elevated office discipline referrals. Throughout the three-thirty day improvement cycles, we monitored the office discipline referrals as an outcome measure. Our theory of improvement held that by building efficacy in teachers when working with students from economically disadvantaged households, office discipline referrals would decrease.

During the pre-planning phase, the design team determined that behavior would be monitored weekly throughout the improvement initiative. Table 5 shows the behavior recorded for the first 30-day cycle using the school-wide attendance quick check protocol.

Table 5
Summary of Weekly Office Discipline Referral (ODR) for Cycle 1 of Improvement Initiative

	% of students with			Since last check	
Dates	1 ODR	> 3 ODRs	> 5 ODRs	Improved	Declined
7/22-7/26	1	0	0		
7/29-8/2	1.2	0	0		yes
8/5-8/9	2.8	0.1	0		yes
8/12-8/16	2.1	0.1	0		

Note. Percent calculated based on 560 total student population. 560 is the average daily enrollment from July 2019 to November 2019.

After utilizing the school-wide office discipline referral quick check protocol (Appendix H) for the first 30 days of the improvement analysis, members of the design team determined changes were needed in the discipline collection protocol. We noted that collecting data weekly was not consistent with the way in which data was reported by the district in the previous school year. In the 2018-2019 school year, average ODR was reported monthly. To compare ODR rates before, during, and after the improvement initiative consistently, monthly percentages were needed. The school-wide office discipline referral quick check protocol was not written in a way that captured this information. Members of the design team decided to change the school-wide office discipline referral quick check protocol to monthly rather than weekly (Appendix J). Table 6 shows the revised data collection protocol.

Table 6

Cycle 1 School-wide ODR Quick Check Protocol Revised

Month	Total # of ODRs	
	2018	2019
July	9	4
August	37	35

Note. Enrollment = 560 student average

Monitoring the total number of ODRs per month allowed us to share the data with staff and teachers on a regular basis. Monitoring the ODRs through the improvement initiative by comparing to the previous year's number of ODRs allowed us to ensure the PD was having a neutral or positive impact on the number of ODRs in real-time.

Act and member checking. Patterns don't just happen; we construct them from our observations of recurring phenomena. It is important to see the evidence of the pattern while also subjecting the pattern to skepticism (Miles, Huberman, & Saldana, 2014). Therefore, the descriptive codes, patterns, and themes researchers coded during analysis were then fed back to participants as a way of providing member checks on the accuracy of descriptions, explanations, and interpretations (Miles, Huberman, & Saldana, 2014). The lead teacher met with small groups of participants and shared descriptive themes researchers interpreted from the data. Participants were given the opportunity to provide feedback and consensus on the information. This session took place on August 9, 2019, for survey data collection after the first PD session.

Through an analysis of participants' responses, we made decisions for the second PDSA cycle and the content specifics of the second session of professional development. Session two's overarching theme was asset-based versus deficit-based thinking. We wanted to ensure that the presenters not only covered the definition of asset-based ideology but also included specific action steps that can be taken to support a shift from deficit-based thinking to asset-based thinking. Because analysis of the questions revealed a desire to understand more, the researchers asked presenters to also add to the training information around personal self-care as a strategy for combating compassion fatigue. Trauma impacts children, families, schools, and communities. Trauma can also take a toll on school professionals. Any educator who works directly with traumatized children and adolescents is vulnerable to the effects of trauma. This is referred to as compassion fatigue or secondary traumatic stress (Figley, 1995).

The theme of solving or fixing these perceived problems led the researchers to add an exploration of compassion and empathy as well as the idea of ruinous empathy. Ruinous empathy occurs when we care deeply about someone, but we do not challenge this person to make improvements and achieve their best (Scott, 2017). This definition in the book *Radical Candor* pertains to the boss/employee relationship, however, the reference can also be used to describe a teacher's perspective on a student. Ruinous empathy can occur when teachers care deeply for their students but do not challenge students to improve. What began as well-meaning empathy results in stunted growth of students.

Professional Development Session 2: Plan-Do-Study-Act Cycle 2

Use of improvement science. Change is a prerequisite for improvement (Langley, 2009). For this improvement initiative, the desired change resides in the perceptions, beliefs, and attitudes of teachers. To monitor this change towards improvement through thirty-day cycles, the

researchers must ensure the on-going professional development sessions are responsive to participants' learning and questions. We worked with the presenters to develop specific objectives of the second PD in response to the analysis of the formative survey data collected in the first PDSA cycle.

Process measures. Attendance was again recorded at the second PD session and kept in a locked drawer in researcher 1's office at Wolf Meadow Elementary School. All certified staff at Wolf Meadow Elementary School participated in the training. Participating in the data collection through the improvement initiative continued to be voluntary.

Balancing measures. Following the second PD session balancing measures were again delivered in the form of a stress and time management survey to monitor the addition of the improvement initiative. The second cycle mean stress score decreased slightly from 3.6 to 3.36 and the second cycle mean time-management score increased slightly 3.07to 3.32. This indicates that teachers were slightly less stressed than during the first time they answered the survey and slightly more concerned about time management

Plan. The overarching topic for the second PD session remained focused on asset-based versus deficit-based thinking. Also, based on the formative feedback gathered at the end of the PD session one, specific objectives were added in response to participants' needs. These objectives included; (a) providing action steps for teachers to support a shift from deficit-based thinking to asset-based thinking, (b) personal self-care as a strategy for combating compassion fatigue, and (c) defining compassion, empathy, and ruinous empathy (Scott, 2017). The presenters continued to adapt content from the Reconnect for Resilience training (https://www.resourcesforresilience.com).

Do. Session two PD was held on September 10, 2019. This session took place at Wolf Meadow Elementary School preceding the school's scheduled three-week fall intersession. The hour-long session was led by the Director of Student Services for Cabarrus County Schools. At this second PD session, teachers began by sharing successes and barriers experienced with the implementation of resilience strategies in classrooms during the previous thirty-day cycle of the improvement initiative. One of the primary principles of improvement is to accelerate learning through networked communities (NICs). NICs help to cultivate the shared belief that we can accomplish more together than even the best of us can achieve alone (Bryk, Gomex, Grunow, & LeMahieu, 2015). This idea is one of the reasons the professional development offerings were collaborative sessions where professionals learned together.

Study. Learning comes from understanding themes and patterns in the data (Langley et al., 2009). To gather the formative data from which to learn, we again provided the opportunity for participants to complete a survey. The short formative survey asked the same questions asked following PD session one: 1) What are three things you learned from this session? 2) What are two questions you have now? 3) What is one thing that surprised you from the training?

Second round coding; Question four, professional development session two.

Descriptive codes were again used to assign labels to this data to summarize the primary topics of similar responses (Miles, Huberman, & Saldana, 2014). After the second PD session, the following descriptive codes were assigned through inductive coding: (a) positive reframing can change how I view negative situations and interactions, (b) self-care can have a positive impact on my effectiveness as a teacher and my personal happiness, (c) new strategies/review of

strategies, (d) I am able to add to the positive in my students' daily lives, (e) other professionals have similar challenges. I am not alone (Table 7).

Table 7

Summary of Pattern Codes PD Session 2 Question 4; What three things did you learn?

Themes	Responses coded (N=71)
Positive reframing can change how I view negative situations and interactions	28
Self-care can have a positive impact on my effectiveness as a teacher and my personal happiness	26
New strategies/review of strategies	12
I am able to add to the positive in my student's daily lives	07
Other professionals have similar challenges as me. I am not alone.	07

Note. N= the number of responses reported by participants. Each respondent was asked to share three things learned. Some respondents shared less than three.

Positive reframing can change how I view negative situations and interactions. Twenty-eight of the seventy-six responses participants shared when asked what they learned from PD session two were coded under the theme of positive reframing. In particular, participants took away the idea that positive reframing can change how negative situations or interactions are

viewed. Positive reframing means changing the meaning of a behavior from a negative to a positive one, in a manner that fits the facts of the current situation as well as the original situation (Weeks & L'Abate, 1982). The presenter posed an example during PD session two. "How would you describe the student in your classroom who is constantly interrupting, blurts out, follows you around the room, and argues at every turn?" he asked. Without pause, the teachers responded, "attention-seeking." The presenter then shared a way for the teachers to reframe this behavior. "Maybe this child is looking for attention because they lack attention in another part of their life. Possibly this child is desperately seeking a way to make a connection with a positive adult. What if instead of attention-seeking, you labeled this behavior as connection seeking?" The latter interpretation sheds a positive light on the student, provides teachers a positive perspective, and begins the process of defining what needs to happen to resolve the negative behavior this student is displaying.

This paradoxical strategy resonated with many participants. One participant noted, "affirmation and encouragement to look for the positive framing in situations that may seem overtly negative was beneficial." Shifting perspectives of teachers includes coaching these teachers to recognize their perspective and become a willing participant in the shift. Positive reframing is a strategy to support looking at the same situation in a way that highlights possibilities rather than the threat involved.

Self-care can have a positive impact on my effectiveness as a teacher and personal happiness. The second most common theme that surfaced through our coding fell under the category of the significance of self-care and how self-care impacts personal happiness and job effectiveness. Twenty of the seventy-six responses held this theme. Figley (2002) defined compassion fatigue as "a state of tension and preoccupation with the traumatized patients by re-

experiencing the traumatic events, avoidance/numbing of reminders, [and] persistent arousal (e.g., anxiety) associated with the patient. It is a function of bearing witness to the suffering of others" (p. 1435). Although there has been limited research examining these phenomena among professionals that work with traumatized children, Eastwood and Ecklund (2008) found that developing and maintaining good self-care practices when not working can impact staff risk for compassion fatigue and burnout. During PD session two, the presenter allowed participants to explore the ideas of self-care and its significance, likening it to putting on your oxygen mask on an airplane before you help another place the oxygen mask over their nose and mouth. "You can't pour from an empty cup," the presenter reminded participants. This validation of the toll caring for students can take resonated. One participant responded on the exit survey, "Self-care is very important to be an effective/happy teacher." Another responded stated, "I need to prioritize self-care." Practicing self-care to maintain personal happiness and job effectiveness was the second most commonly theme cited by participants and something they learned from PD session two.

New strategies/review of strategies. Although the primary goal of this PD session was not strategies, the presenter allowed participants to share reconnect strategies taught in their classrooms or used with students. Twelve participant responses were coded with the theme of learning new or reviewing specific strategies to reset students when needed. Mastery experience, or personal experience(s) being successful at a particular task, is the most salient way to develop an individual's efficacy (Hinnant-Crawford, 2016). When participants have a place to share their successes and explore the use of strategies with students, they are developing efficacy.

I am able to add to the positive in my student's daily lives. The Resilience Scale (Kendall-Taylor, 2012) is an effective simplifying model for channeling thinking about

developmental outcomes and resilience. The presenter used the model as part of the Resources for Resilience Tools. The Resilience Scale Model makes the following points from science thinkable for teachers: Individual differences are the product of (a) genetic starting points, (b) positions to which environments and experiences push these points, and (c) risk and protective factors - The pile-up of risk factors is dangerous for all children. Resilience is the phenomenon in which positive outcomes occur despite the presence of significant negative factors. Adults, including teachers, can provide happy/consistent things for students at school to make the scale for bad/good things more positive (Kendall-Taylor, 2012). Six of the seventy-six participant responses cited this idea as something learned from PD session two. One participant stated, "We can't fix the negative problems, but we can help the kids navigate through the problems. We can be there for kids." The Resilience Scale was a memorable model for participants. At the end of the PD session, a group of participants asked the presenter if they could have a copy of the slide model.

Other professionals have similar challenges. I am not alone. A final theme researchers noted was the idea educators expressed about not being alone. Six participants shared something they revealed through this PD session; they realized that other professionals also have similar challenges. For example, one participant shared that she learned, "Everyone has similar problems dealing with troubled kids." Being able to identify challenges for teachers in the classroom are universal can support educators in developing self-compassion and reducing shame. Self-compassion specifically targets shame by encouraging people to extend genuine kindness toward themselves and recognize that everyone is imperfect and experiences feelings of failure (Akpan & Saunders, 2017).

Second round coding; Question five, professional development session two. We clustered and coded the questions that participants reported on the survey. The following themes around remaining questions were coded and are presented in Table 8: (a) Questions that revealed in interest in the nuts and bolts of strategy use, (b) Questions that revealed a desire to know more about practical self-care, (c) Questions that revealed a new consideration for students with multiple identifications, (d) Questions that revealed an acknowledgment of a need for adult reset.

Table 8

Summary of Pattern Codes PD Session 2 Question 5; What two questions remain?

Themes	Responses coded (N=42)
Questions that revealed a desire to know more about practical self-care	28
Questions that revealed an interest in the nuts and bolts of strategy use	26
Questions that revealed a new consideration for students with multiple identifications	07
Questions that revealed an acknowledgment of a need for adult reset	05

Note. N= the number of responses reported by participants. Each respondent was asked to share two questions they still had following the PD. Some respondents shared less than two.

Questions that revealed a desire to know more about practical self-care. The most frequently occurring theme of questions researchers coded pertained to the topic of practically

applying the ideas of self-care into their lives. Twenty-eight of the forty-two responses pertained to self-care. Wolf Meadow Elementary is a year-round school with larger intercession breaks throughout the school year. This context has been applied by the participant in this question; for example, “We often wait until big breaks for self-care, what are some more routines we can take advantage of?” Again, this revealed the participants’ application of the PD topics shared in their own setting.

Questions that revealed an interest in the nuts and bolts of strategy use. The second largest cluster of questions participants had after the second PD session was coded under the category of logistically implementing strategies taught in a day to day school setting. Twenty-eight of the forty-two responses asked about the ‘how-to’ of strategy use. For example, “Can I have some kind of user-friendly document with all of the techniques” or “How do I implement this in a Tier II small group setting?” Questions such as these revealed participants’ consideration of general strategies taught during PD sessions within their own context.

Questions that revealed a new consideration for students with multiple identifications. A final category of questions that arose during coding fell under the idea of considering students who are experiencing trauma in addition to other known identifiers. Seven of the forty-two responses were coded with this theme. More than half of students enrolled in public schools today have faced trauma (Felitti & Anda, 2009). It is likely that many of these students also have additional identifications that warrant consideration for teaching and learning.

For example, one participant wondered, “Might we talk about students with language barriers (second language, language disorder, lack of parental communication models) and how to respond/talk to those students when they are in crisis? I’m thinking that dialing down the

vocabulary and shortening sentences might help." Another questioned, "How do you help kids with severe attention deficit hyperactivity disorder? Like to reframe with them."

Questions that revealed an acknowledgment of a need for an adult reset. Five of the forty-two responses shared by participants acknowledged the idea that reconnect strategies and reset strategies are helpful not only for students but also for adults. For example, one participant asked, "How do I reset in the moment if I'm still upset?" Another wondered, "Is there a discipline or practice that teachers who may be in crisis themselves can undertake that will help them quickly assess the student's issues/needs and employ positive strategies?"

Additionally, we noted a cluster within the categories of responses above phrased in a way we considered a contradiction to the learning. Participants restated the strategy or content given by the presenter and added a however, an although, or a nonetheless sentiment after the statement. For example, one participant asked, "I understand needing to address attention-seeking students in a positive way, however, what do you do with the negative behavior?" Another participant questioned, "How do you handle things when there are numerous kids who have lived traumatic lives and are bringing it to the classroom, but how do you help a kid that seems to have no positives on his/her scale?" Seven of the forty-two responses contained these contradictions within the question posed. Throughout the formative data collection cycles, participants were not given an open-ended survey space in which to respond to the PD sessions with disagreements or possible barriers to this work. We believed these responses reported in the form of a question were reasons participants were hesitant to implement or were expecting unsuccessful results if implemented. These contradictory statements in the form of a question provided insight for the development of the final PD session.

Attendance. Attendance was collected for the next thirty-day cycle. Table 9 shows the attendance data for the months thus far in the school year compared to these months in the previous school year.

Table 9

Cycle 2 School-wide Attendance Quick Check Protocol Revised

	Absent rate percentage	
Month	2018	2019
July	3.2	2.7
August	4.4	5.2
September	4.9	4.7
October	5.8	5.2

Note. Percent calculated based on 560 student enrollment for 2019 and 580 student enrollment in 2018.

Office discipline referrals. The researchers continued to monitor the office discipline referral rate using the revised protocol check. We used this so we could compare the rate to the same month from the previous school year prior to the beginning of the improvement initiative. Table 10 shows the office discipline referrals for the months thus far in the school year compared to these months in the previous year.

Table 10

Cycle 2 School-wide ODR Quick Check Protocol Revised

Month	# of ODRs	
	2018	2019
July	9	4
August	37	35
September	30	13
October	20	7

Note. Average daily enrollment = 560 students

Act and member checking. The lead teacher again shared the codes and themes we noted and provided an opportunity for participants to comment or disconfirm the patterns constructed. After confirming the patterns and themes coded with participants, we again took these ideas forward to inform our decisions about specific content to be utilized in the third and final PD session. The overarching topic for the third PD session focused on providing opportunities for participants to develop an understanding of the challenges faced by economically disadvantaged students and families. The analysis of responses from PD session two gave us data to support the idea that participants were beginning to consider themselves within the ideas of trauma-informed pedagogy and asset-based versus deficit-based ideology. We worked with the presenter to outline content in PD session three that would encourage this pattern to continue with participants. Within the theme of understanding the challenges faced by

economically disadvantaged students and families, we wanted participants to be open to exploring unknown personal biases held.

Professional Development Session 3: Plan-Do-Study-Act Cycle 3

Use of improvement science. Making a change that results in improvement within organizations will never be a mechanical process because people are involved, and therefore peoples' motivation for improvement must be considered (Langley et al., 2009). Change becomes increasingly complex when the improvement initiative requires a change in peoples' perceptions, attitudes, and beliefs. Each person involved in the improvement initiative began with their own perspective, and these perspectives changed at varying rates for each person. For this reason, we continued to collect formative data to gauge what ideas and questions participants had throughout improvement cycles.

Process measures. Attendance was again recorded for the third and final PD session of the improvement initiative. This was kept in a locked drawer in researcher #1's office at Wolf Meadow Elementary School. All certified staff at Wolf Meadow Elementary School participated in the training. Participating in the data collection through the improvement initiative continued to be voluntary.

Balancing measures. A final balancing measure survey again asked participants who chose to be part of this research two questions focused on stress level and time management using a five-point Likert scale describing least to the most stress and ability to manage time on a scale from one to five. The second cycle mean stress score increased to 3.40 and the second cycle mean time-management score also increased to 3.40. This indicates that the teachers have a higher level of stress and higher frustration level with time management according to this measure during the second cycle.

Plan. Valencia (2010) defined deficit thinking as a type of cognition that is a relatively simple and efficient form of attributing the 'cause' of human behavior. According to Valencia, there are three paradigms of thought to support this deficit thinking: (a) a genetic pathology model, (b) a culture of poverty model, and (c) a marginalization of low-income and students of color model. The second paradigm, a culture of poverty model, is the deficit thinking our third PD session addressed. Utilizing the themes and remaining questions participants had from the second PD session, we worked with the presenter to define specific objectives for the participants during the third session. The objectives included; (s) balancing compassion and high expectations as an educator and (b) recognizing personal blind spots. The presenter continued to adapt content from the Reconnect for Resilience training (http://www.resourcesforresilience.com) combined with his professional knowledge as a licensed counselor.

Do. The third and final PD session was held on October 11, 2019, from 8:00 am -11:00 am at Wolf Meadow Elementary School. The three-hour-long session was led by the Director of Student Services for Cabarrus County Schools. The presenter opened the third session by asking participants to share any recent successes experienced in their classrooms using reconnect strategies with students. The PD continued as participants explored giving and receiving compliments. Receiving compliments from piers and responding with only a 'thank you' proved difficult for participants. The presenter followed this activity by exploring the idea of using authentic complements with students, parents, and families. The presenter then used activities highlighting selective attention and self-awareness to encourage participants to explore self-bias. Compliments, selective attention, and self-awareness were tied back to the idea of considering

the perspective of students and families from economically disadvantaged households and potential unknown biases we may have toward these students and families.

One such exercise was Daniel Simons and Christopher Chabris' invisible gorilla (https://www.invisiblegorilla.com). The invisible gorilla is an exercise in selective attention. Participants watch the screen with a given task of counting the number of passes made by the basketball team wearing white. With attention focused on the given task, most participants missed the man dressed as a gorilla that walked across the screen. A discussion opened around perspective and bias. The video was an opening to discussing the fallibility of our own thinking. This exercise broke our intuition and forced participants to confront the fact that we may not always be seeing things as they are. Do we see the same thing as everyone else? These limitations are not only present in our visual system, but also affect the way we perceive people or groups of people.

A second exercise participants experienced was a study of Johari's Window. The Johari Window, a model that categorizes degree of self-awareness and openness in communication into four quadrants: (1) information known to self and others (open), (2) information known to self but not to others (hidden), (3) information known to others but not self (blind), and (4) information known neither to self nor to others (unknown), is a frequently used pedagogical tool. Although little research supports the validity of the tool's measurements, it can be a helpful metaphor for participants to understand that everyone can have blind spots (Sole, 1997).

Study.

Second round coding: Question four, professional development session three.

The researchers coded participant responses and we identified the following themes as major takeaways from PD session three as illustrated in Table 11: (a) giving and receiving

compliments is challenging, powerful, and necessary, (b) the significance of authentic compassion, (c) self-care can have a positive impact on my effectiveness and personal happiness, (d) shame versus guilt, and (e) perspective and blind spots.

Table 11

Summary of Pattern Codes PD Session 3 Question 4; What three things did you learn?

Themes	Responses coded (N=71)
Giving and receiving compliments is challenging, powerful, and necessary	17
Significance of authentic compassion	17
Self-care can have a positive impact on my effectiveness and personal happiness	13
Shame versus guilt	09
Perspective, implicit bias, or blind spots	07

Note: N= the number of responses reported by participants. Each respondent was asked to share three things learned. Some respondents shared less than three.

Giving and receiving compliments is challenging, powerful, and necessary. Seventeen of the seventy-one responses shared by participants were coded under the theme of the significance of complements. Participants shared how challenging yet powerful it was to receive compliments from peers. Participants also began to make connections between finding an authentic compliment to share with students or parents even when there are challenges with the

relationship. One participant shared that she learned about "the brain's natural tendency to think negatively when hearing compliments." Another participant noted, "I learned about disarming someone who is angry by finding an authentic compliment for them."

Significance of authentic compassion. Researchers coded seventeen of the seventy-one responses as compassion. Participants reported learning "the difference between compassion and pity." Additionally, many participants shared learning about "having ready compassion statements" as a way to support students. We can train ourselves to be more compassionate in the face of other's suffering is a skill that can be practiced and improved (Weng et al., 2018). Providing this opportunity is one way in which teachers can develop compassion for students and families from economically disadvantaged households.

Self-care can have a positive impact on my effectiveness and personal happiness. The researchers coded thirteen of the seventy-one responses participants shared under the theme of self-care and its impact. Although this was not the focus of this PD session, participants continued to make connections with self-care to compassion. This theme resonated with participants again during this session. One participant noted she learned about "the need for self-care and the fact that I don't really have a plan for it." Another participant linked self-care and job effectiveness responding "self-care is important to be a good professional."

Shame versus guilt. A third theme researchers coded in the responses to question number four was the difference between shame and guilt. Participants noted that they recognized "the importance of identifying and validating those experiencing trauma or shame." Other participants shared this was the first time they had considered, "there was a difference between shame and guilt." Nine of the responses by participants were coded under this category.

Perspective, implicit bias, or blind spots. Researchers coded seven of the seventy-one responses under the idea of awareness of biases. These responses noted something learned about blind spots or referred to learning from the Jahari Window model or implicit bias activities. For example, one participant shared, "I learned about Jahari's Window and how perception can be drastically different." Another participant shared that they learned "we all have biases and students' perceptions are their reality."

The Kirwan Institute (2016) defined implicit bias as our unconscious beliefs, attitudes, or stereotypes, which influence our perceptions, words, and actions without our awareness. We learn these implicit biases over time from the books we read, the media we consume, and listening to families and friends talk. Often these implicit biases are involuntarily activated without the awareness or control of the individual. Additionally, these biases often conflict with the stated, conscious beliefs of individuals (Kirwan Institute, 2016). When students from economically disadvantaged households arrive at school, they are often taught by middle-class teachers who are unaware of the implicit class biases and subtle prejudices they may have. Teachers may misinterpret a student's learned helplessness and trauma-based anxiety for disrespect or defiance. One participant noted, "I learned about blind spots we have." Another stated, "perspectives can be drastically different." Implicit biases are highly malleable and can be unlearned through awareness and habitual reflectiveness (Kirwan Institute, 2016). Addressing implicit bias begins with an awareness that biases exist in everyone.

Second round coding; Question five, professional development session three. Researchers categorized the remaining twenty-six questions that remained for participants after PD session three to gain insight into long term support needed for participants. Second round coding continued and through analysis, researchers unveiled larger ideas that we will take

forward past the initial three cycles of this improvement initiative. The remaining questions were categorized into the following themes; (a) compassion versus pity, (b) adapting information for children, (c) shame versus guilt, and (d) time management. Table 12 displays the number of questions coded with these ideas.

Table 12

Summary of Pattern Codes PD Session 3 Question 5; What two questions remain?

Themes	Responses coded (N=26)
Compassion versus pity	6
Adapting information for children	5
Shame versus guilt	4
Time management	4

Notes. N= the number of responses reported by participants. Each respondent was asked to share two questions they still had following the PD Some respondents shared less than two.

Compassion versus pity. The ideas participants examined around compassion for students and families from economically disadvantaged households versus the near enemy of compassion, pity. An awareness of these ideas has prompted teachers to continue to question how to ensure their expectations for students have not been lowered by pity masked as compassion. One participant asked, "How do we help each other build and keep our expectations high for all kids no matter their history?" Another asked for, "additional resources to show compassion to others going through a tough time." Questions often revealed participants' awareness of nuances of compassion and pity. Yet another participant asked, "What is the difference between showing

compassion and just tolerating someone's situation?" As scholar-practitioners we can continue to provide opportunities for staff to explore their compassionate practices within their classrooms and school.

Adapting information for children. Five of the twenty-six remaining questions from participants contained the idea of adapting strategies, eliminating shame, compassion, and complements to children of various ages. One participant noted, "A lot of the information seems applicable to adults but still searching for the best ways to apply to children, especially the younger ones." Another participant asked, "How do we make this language kid-friendly?" These questions revealed to us the continued processing of the information learned. Participants continued to consider which information was for personal awareness and belief change and which information would be beneficial directly shared with students.

Shame versus guilt. A similar continuation of information processing around the ideas of shame versus guilt also arose in the coded questions from the third PD session. Four of the remaining twenty-six questions fell under this code. Questions participants shared included, "what does the traumatic experience have to do with feeling shame or guilt?" and "what are some phrases that can be said to talk to someone with shame?" Participants asked questions that reveal a desire to assimilate the newly learned information into their work with students and families.

Time management. A final category of coded questions relates to the theme of time management. Four out of the twenty-six remaining questions revealed the participants' attempts to add this work on top of their current tasks. Questions such as, "I understand the importance of self-care but I still do not know how to do that with all the things that have to be done for school," and "when is there time to teach our students about some of these strategies?" revealed

the continued struggle of teachers to balance all of the demands and continuous learning required of the job.

Attendance. During the third 30-day cycle, the revised attendance quick check protocol was used to monitor and collect data (Appendix K). Table 13 shows the attendance recorded for the third 30-day cycle.

Table 13

Cycle 3 School-wide Attendance Quick Check Protocol Revised

Month	Absent rate percentage	
	2018	2019
July	3.2	2.7
August	4.4	5.2
September	4.9	4.7
October	5.8	5.2
November	6.1	5.6

Note. Percent calculated based on 560 total student population. 560 is the average daily enrollment from July 2019 to November 2019.

Office discipline referrals.

Office discipline referral rates were again monitored during the third cycle of the improvement initiative to ensure progress was being made. Table 14 shows the ODRs from the initiative compared to the same period prior to the initiative.

Table 14

Cycle Three. School-wide ODR quick check protocol revised

Month	# of ODRs	
	2018	2019
July	9	4
August	37	35
September	30	13
October	20	7
November	41	17

Note. Average daily enrollment = 560 students

Act and member checking. The implementation of the shifting perspectives improvement initiative consisted of three thirty-day cycles of improvement. Although the participants' responses to lessons learned and remaining questions did not inform follow up PD within the written improvement initiative, as practitioners we will use this data to continue to support the growth and development of attitudes, perceptions, and beliefs of teachers at Wolf Meadow Elementary after the writing of this paper. One of the oldest social science theory, The Diffusion of Innovation Theory (Rogers, 1962) referred to those that embrace change and new ideas first as early adopters. Resources can be allocated to those who are making a change. As success grows and the perceived risks declines, others will follow (Langley et al., 2009). The lead teacher again met with small groups of participants and shared descriptive themes we

interpreted from the data. Participants were allowed to provide feedback and consensus on the information. This final member check session took place on November 22, 2019, for survey data collection after the third PD session.

Summative Evaluation of Improvement Methodology

Formative evaluations provided crucial data during our intervention and allowed the researchers to make necessary adjustments as we gradually learned from and refined our processes. However, we also sought to integrate both quantitative and qualitative measures to finalize the initiative's summative evaluation. These data provided a clear picture of the improvement initiative's effectiveness by allowing us to compare pre-intervention and post-intervention data after the improvement initiative in order to examine teacher perceptions afterward. The total improvement project lasted five months. The initial survey was given in June and the last survey was delivered at the end of November.

Our initiative aimed to improve attendance, behavioral, and academic performance in school by students from economically disadvantaged households. Summatively, we measured the change in teachers' dispositions to support students from economically disadvantaged households by comparing the mean values of each question from the preliminary and final surveys. We measured the change in student behavior based on the number of office discipline referrals. Attendance change was measured by the number of days students were in attendance.

End of Grade (EOG) test scores are measured yearly by the North Carolina Department of Public Instruction (DPI) and are released annually to the public via the North Carolina School Report Card. The timing of DPI's release of EOG testing data did not allow us to integrate summative academic data into our final paper, but it will enable us to compare another data points when released. This data will inform long-term goals. Comparing these data in addition to

our qualitative feedback, allowed us to provide a wide-ranging view of our initiative and the impact it facilitated among teachers and students at Wolf Meadow Elementary School.

Pre-initiative and Post-initiative Survey

Summative evaluation of the intervention relied on a pre and post-survey to measure teacher dispositions in relationship to their understanding of trauma-informed pedagogy, asset vs. deficit-based ideology, and challenges faced by students and families from economically disadvantaged families. The surveys asked questions concerning each topic, focusing on the three main foci of the study. The surveys were adapted from the combined works of Anderson and Blitz's (2015) work on trauma-informed teaching approaches, Varga's 2017 work surrounding strength and deficit-based thinking, and the work of the National Public Radio, Kaiser Family Foundation, and the Kennedy School of Government at Harvard University's National Survey on Poverty in America (Appendices A and B) .

During the development of the project, the design committee, along with assistance from the IRB specialist at Western Carolina University made the decision not to include any unique identifiers for survey participants. This decision was made to add further security for participants, to encourage truthfulness, and to lessen any fear that they may be held liable for their answers; as the researchers were the direct supervisors of all participants. While the researchers believed that the anonymity was important to the security of the participant, the researchers also acknowledged that the analysis of these data were limited due to the inability to directly pair participant's answers. As discussed later, this evoked a clear design flaw that could be reduced if the researchers be unrelated to the test subjects.

The pre survey contained 19 questions focused on trauma-informed pedagogy, 11 questions focused on asset versus deficit-based thinking and ideology, 28 questions that asked

about challenges faced by students and families living in economically disadvantaged homes. Fourteen questions asked about the respondents' personal, familial, and friends' socioeconomic status.

The post-survey contained identical questions to the pre-survey with the addition of one question regarding coaching and extra support from the Community Resource Coordinator (CRC). The question, "How many times did you receive coaching from the Community Resource Coordinator (CRC) during this professional cycle?" was included to allow researchers to determine if the CRC had been an additional resource for improvement. Additionally, the CRC was instructed to record topics discussed and the amount of times met with participants, but without identifying any identities.

The pre-survey was administered in June of 2020 and allowed the researchers to gather a baseline to discover the initial group attitudes. The June date was outside of the 90-day improvement cycle because of the alternative school calendar used at WMES. Teachers have a four-week summer and the initial professional development and beginning of cycle one of the improvement project began when teachers returned for the 2019-2020 school year. There were 24 participants.

The post-survey was delivered mid-November 2019, immediately after the completion of the third improvement cycle. 20 participants completed the survey. Completion of the post survey at the end of the 90-day cycle allowed for comparisons of attitudes amongst the group. Researchers calculating the mean of each question and examined the overall change in the group's attitude. Improvement was indicated if the mean was determined to be an increase in understanding or, in the section on trauma, if the mean indicated a higher positive outlook.

Summative Evaluation of Goals with Results

Our theory of improvement held that improving teacher dispositions, knowledge, and efficacy to meet the academic and social/emotional needs of students from economically disadvantaged households would increase school performance. Although, "all children can learn" has become a mantra publicly espoused by educators, the work of scrutinizing the fair practices and dismantling biased ideology embedded in schools is not yet complete. We began this work by challenge the entrenched beliefs of teachers while building their knowledge and efficacy to create a space where all children have the opportunity to learn.

Goal achievement progress.

Goal 1: Teachers' sense of self-efficacy surrounding their ability to teach students using trauma-informed pedagogy will increase by 10% as measured by pre-survey to post-survey data.

Researchers used Anderson and Blitz' (2015) approaches on trauma-informed teaching to develop the questions in the pre and post-surveys. The 19 questions included nine directly related to teacher confidence and 10 questions related to teacher understanding and efficacy around trauma-informed pedagogy and practices in their classroom. Complete data surrounding trauma informed pedagogy, pre and post initiative, is available in Appendix M.

Participants' confidence level. The nine questions related to teacher confidence asked teachers to self-report their belief and skills as an educator to work with and explicitly teach students using a pedagogy that focused on trauma-informed teaching. This portion of the survey asked respondents to rate their confidence in their own ability to accomplish tasks focusing on students in the classroom setting using a Likert scale that indicated self-perceived ability with zero indicating no confidence and five indicating completely confident. Survey questions

included the ability to assess student behaviors in school knowing that acceptable school behaviors may not match acceptable behaviors within a student's home culture (mean increase of 4% to 3.60), teacher's ability to establish high behavioral standards and produce high quality work (mean increase of 1% to 3.7), teacher ability to use students' background to develop an effective learning environment (mean increase of 10% to 3.7), to teach students how to work together (mean increase of 4% to 3.8), to develop a partnership with parents from diverse cultural backgrounds (mean increase of 12% to 3.3), implement interventions that minimize conflict when a student's home behavior is not consistent with school norms (mean increase 14% to 3.7), to manage situations in which students are defiant (mean increase of 5% to 3.3), to prevent disruptions by recognizing potential causes for misbehavior (mean decrease of 1% to 3.4), and to redirect student behavior without the use of consequences or verbal reprimand (mean increase of 5% to 3.3).

Results were ascertained by finding the mean of all the respondents' answers in both the pre and post-surveys, then comparing the difference in means. In the pre survey, the top three items in which respondents had the most confidence were to establish high behavioral standards that encourage students to produce high-quality work (M=3.67), teach students how to work together (M=3.58), and prevent disruptions by recognizing potential causes for misbehavior (M=3.46). Post-survey teachers were most confident in their ability to teach students to work together (M=3.80), establish high behavioral standards that encourage students to produce high-quality work (M=3.70), use what I know about my student's background to develop an effective learning environment (M=3.65), and implement interventions that minimize conflicts when a student's home behavior is not consistent with school norms (M=3.65). Figure 11 demonstrates the mean differences in participants' responses in pre and post survey questions.

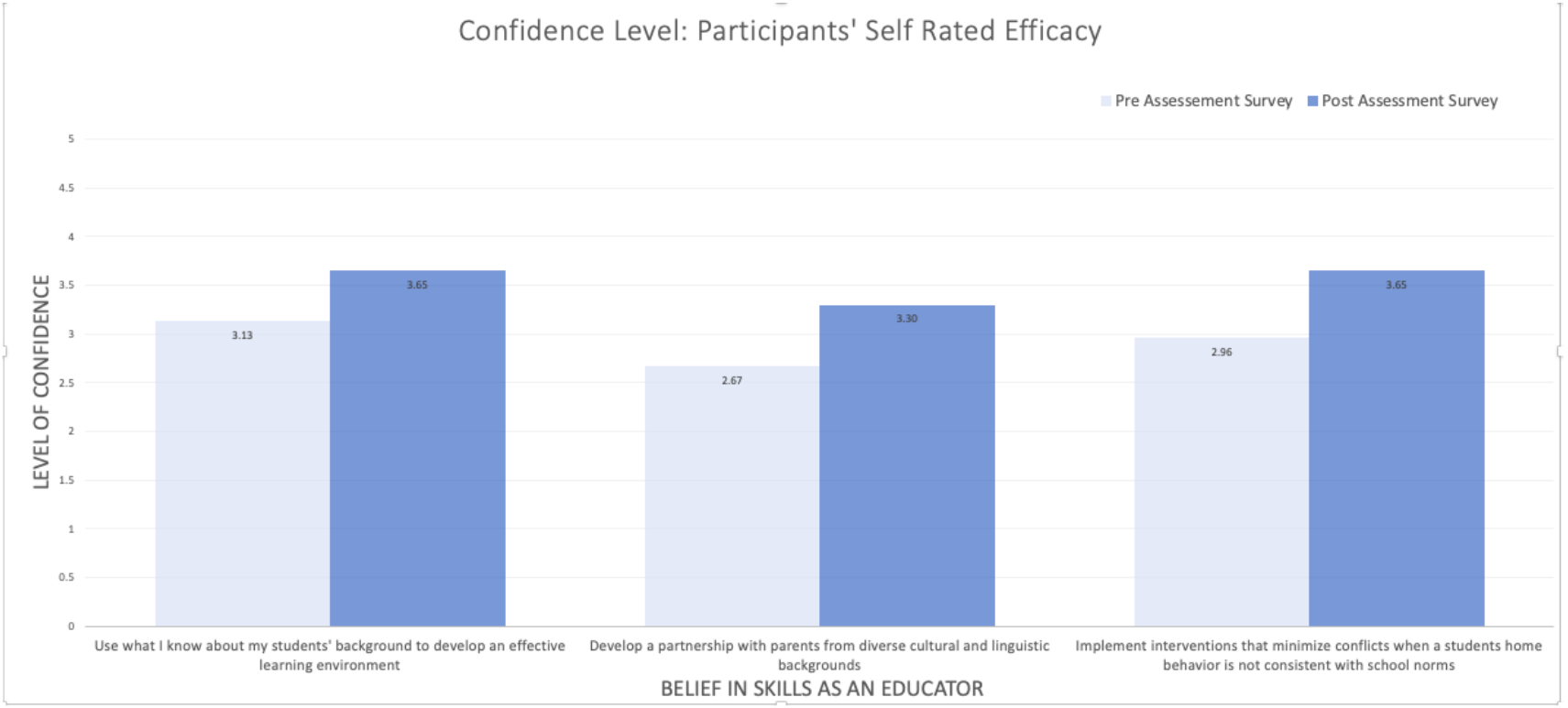


Figure 11. Graph showing participants self-reported beliefs in their ability to use trauma-informed pedagogy pre-initiative and post-initiative.

The most substantial positive difference from pre to post-survey was in the teachers' perceived confidence in their ability to implement interventions that minimize conflicts when a student's home behavior is not consistent with school norms (Δ=.69). The largest negative difference from pre to post-survey was in the teachers' perceived ability to prevent disruptions by recognizing potential causes for misbehavior (Δ=-.06). From pre to post-survey all of the means increased with the exception of the aforementioned question, indicating that participants gained confidence.

Understanding of trauma informed pedagogy and teacher efficacy. The 10 questions related to teacher understanding of trauma-informed pedagogy and practices in their classroom asked participants to agree or disagree with statements related to pedagogical practices in the classroom with a focus on trauma-informed teaching. The participants rated on a scale from zero; I do not agree at all, to five, I agree. Questions included student disruptive behaviors may be linked to physical changes related to a stressful living environment (mean decrease of 3% to 4.26), when an adult uses a loud voice or a stern tone it can trigger a high stress response in some students, making behavior worse (mean decrease of 1% to 4.21), often students will only stop a negative behavior if an adult uses an aggressive tone or strong words (mean decrease of 6% to 1.79), the adults in my school give supportive corrective feedback to one another when witnessing an adult speaking harshly to a student (mean increase of 1% to 2.11), the adults in the school help each other develop creative, strengths based responses to difficult problems or issues (mean increase of 7% to 3.16), I generally consider my classroom or workspace a calm and peaceful environment (mean decrease of 7% to 3.16), I feel overwhelmed and unable to support my students who have or are experiencing trauma in their lives (mean decrease of 7% to 1.84), the expectations of teachers to consider every student's traumatic experience is unrealistic (mean

increase of 1% to 1.79), I have the ability to address my student social and emotional needs when these needs interfere with learning (mean decrease of 3% to 2.89), and I receive adequate professional development to work with student experiencing trauma or toxic (mean increase of 26% to 3.37).

Results were gathered by finding the mean of all the respondents' answers in both the pre and post-surveys, then comparing the difference in means. The top three items that respondents agreed most with were student disruptive behaviors may be linked to physical changes related to a stressful living environment (M=4.42), when an adult uses a loud voice or a stern tone it can trigger a high stress response in some students making behavior worse (M=4.29), and I generally consider my classroom or workspace a calm and peaceful environment (M=3.71). In the post-survey the three highest mean responses stayed the same student disruptive behaviors may be linked to physical changes related to a stressful living environment (M=4.26), when an adult uses a loud voice or a stern tone it can trigger a high stress response in some students making behavior worse (M=4.21), and I generally consider my classroom or workspace a calm and peaceful environment (M=3.37) with the additional response of I receive adequate professional development to work with students experiencing trauma or toxic stress (M=3.37).

The largest positive difference from pre to post-survey was in the teachers' belief that receive adequate professional development to work with students experiencing trauma or toxic stress (Δ= 1.29). The largest negative difference from pre to post-survey was in the question asking teachers about feeling overwhelmed and unable to support students in their classrooms who have or are experiencing trauma in their lives (Δ= -.37). It should be noted that the decrease in teachers who feel overwhelmed or unable to support students who have trauma in their lives post-intervention is an optimistic response.

Goal 2: Teachers will increase asset-based ideology and decrease deficit-based ideology by 10% as measured from presurvey to post-survey.

Asset versus deficit-based belief system. Participants' ideology about their asset and deficit-based thought processes were gauged by providing forced choice between words or pairs of words. If respondents chose the strength-based response, their answer was determined to be a one, and the deficit-based response was given a zero. The complete data surrounding asset versus deficit-based ideology is available, pre initiative to post initiative in Appendix N. The pairs were what's wrong or what's working (mean decrease of 29% to .50), discover and adapt or predict and control (mean decrease of 4% to .50), overcoming weakness or emphasizing possibilities (mean remained the same at .50), intervene or engage (mean increased 12% to .75), adapt to or reform (mean increased 12% to .70), opportunity or crisis (mean decreased 10% to .90), static or dynamic (mean increased 21% to 1.0), control or empower (mean increased 33% to 1.0), understand or diagnose (mean decreased 13% to .75), process focused or behavior focused (mean increased 6% to .35), and deviant or unique (mean increased 11% to .90). Figure 12 displays the group mean of asset based responses chosen in pre initiative and figure 13 displays the group mean of the asset based responses chosen post initiative. The 60% increase is more than expected and an upward trend for asset-based thinking.

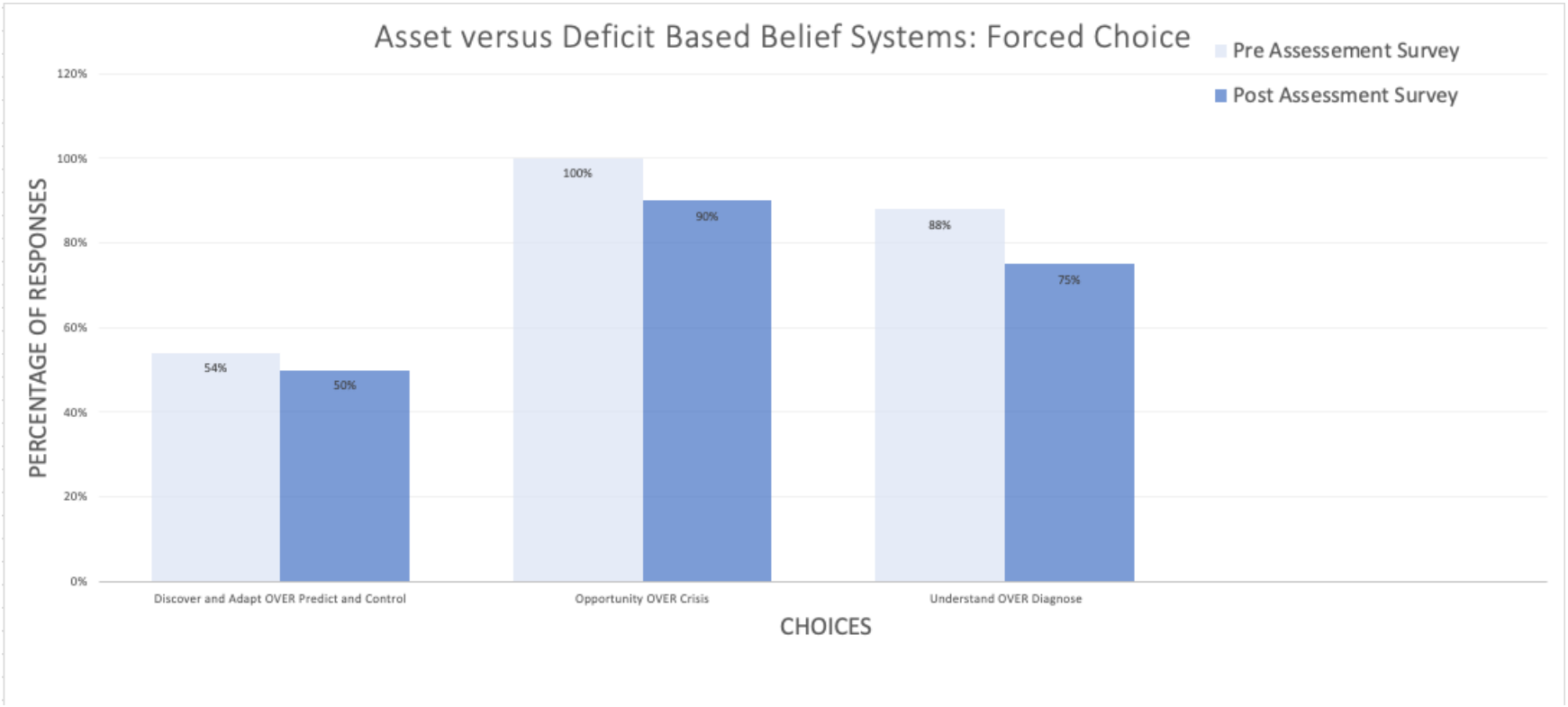


Figure 12. Graph showing the asset-based responses chosen by participants when given a forced-choice belief survey pre-initiative.

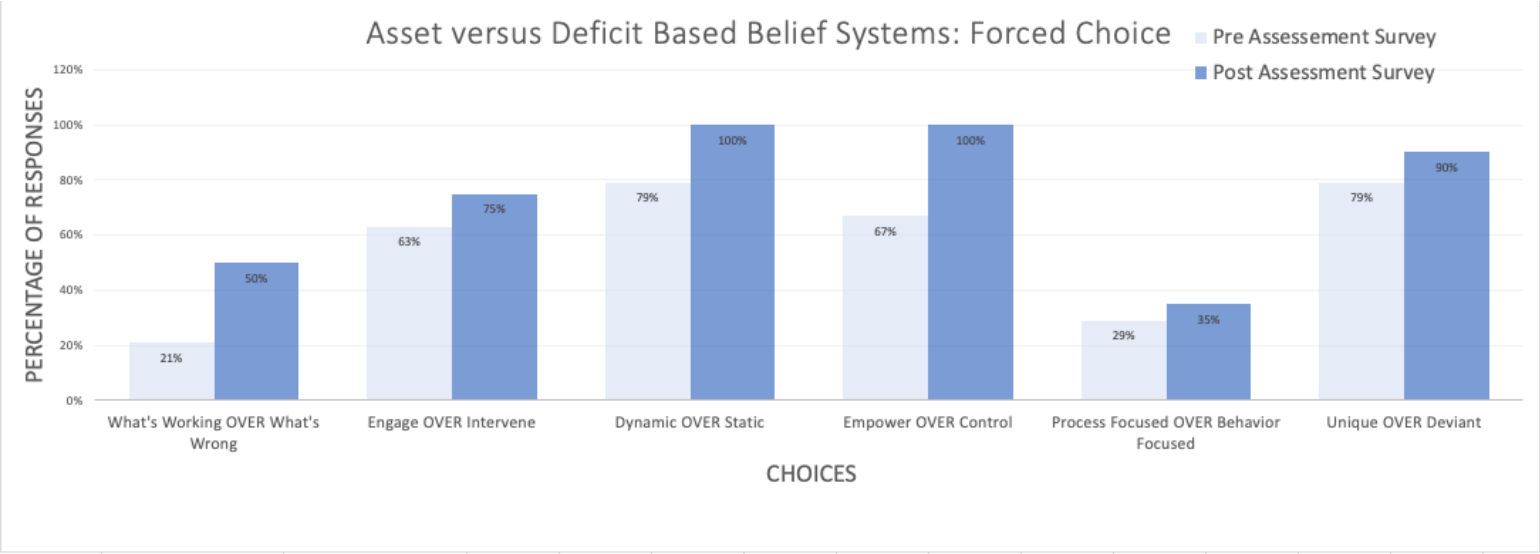


Figure 13. Graph showing percentage of asset-based responses chosen by participants in a forced-choice belief system post-initiative survey.

The mean for asset-based response was selected more often three out of ten times in the pre-survey. The mean for the asset-based response was selected more often six out of ten times in the post-survey. When given a forced-choice between asset-based and deficit-based phrases, the mean for all asset-based responses increased from 30% to 60%. This increase of 30% exceeds the 10% goal we set and represents overall upward movement toward asset-based thinking.

Goal 3: Teacher knowledge about the challenges faced by students and families from economically disadvantaged families will improve 10% from the pre-survey to post-survey.

Major cause of poverty. When measuring teachers' understanding of poverty and the challenges students and families from economically disadvantaged households face, we asked teachers pre and post initiative to categorize each factor as a major or minor cause of poverty today. Pre-initiative, 38% of participants indicated that they believed that people were not doing enough to get themselves out of poverty while post-initiative, 10% indicated the same response, with 90% of respondents indicating that there were circumstances beyond one's control that cause them to be poor. The change in this response was 28% and indicates an optimistic outlook. Figure 14 shows the overall percentage of respondents and their selection pre and post-survey. Complete data surrounding teacher knowledge of challenges faced by students and familes from economically disadvantaged families, pre and post initiative, is available in Appendix O.

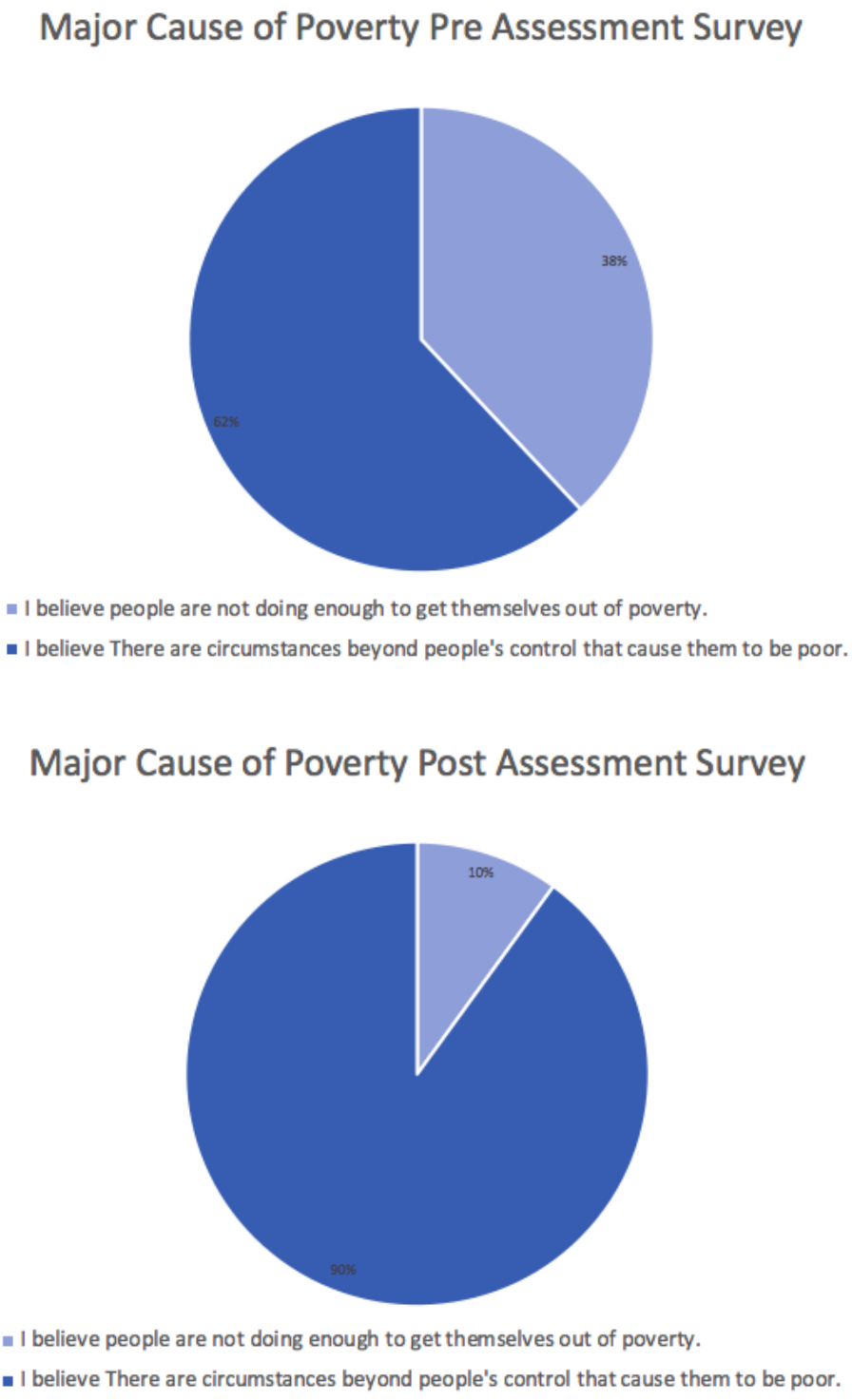


Figure 14. Graph showing the percent of participants who believe there are circumstances beyond people's control that cause them to be poor pre-initiative and post-initiative.

Perceived potential causes of poverty. Additional questions were used to discover what participants believed to be causes of poverty. To measure participants beliefs in causes of poverty, respondents were given 10 different potential causes and instructed to select major or minor. If they answered that the topic was a major cause of poverty, their answer was converted to a one. If they answered that the topic was only a minor cause of poverty, their answer was converted to a zero. Results were gathered by finding the mean of each question for all the respondents answers in both the pre and post-surveys, then comparing the mean of those responses from the pre to the post-survey.

Potential causes suggested included; drug abuse (mean decrease of 3% to .85), medical bills (mean increase of 3% to .70), too many jobs being part time or low wage (mean decrease of 3% to .60), too many single parent families (mean increased by 5% to .80), a shortage of jobs (mean decreased 22% to .11), the welfare system (mean decreased by 7% to .60), too many immigrants (mean decreased by 12% to .05), lack of motivation (mean decreased by 9% to .45), a decline in moral values (mean decreased by 4% to .50), and poor quality of public education (mean increased by 4% to .21). Figure 15 below shows the percentage of participants who responded that they thought each item was a major cause of poverty today.

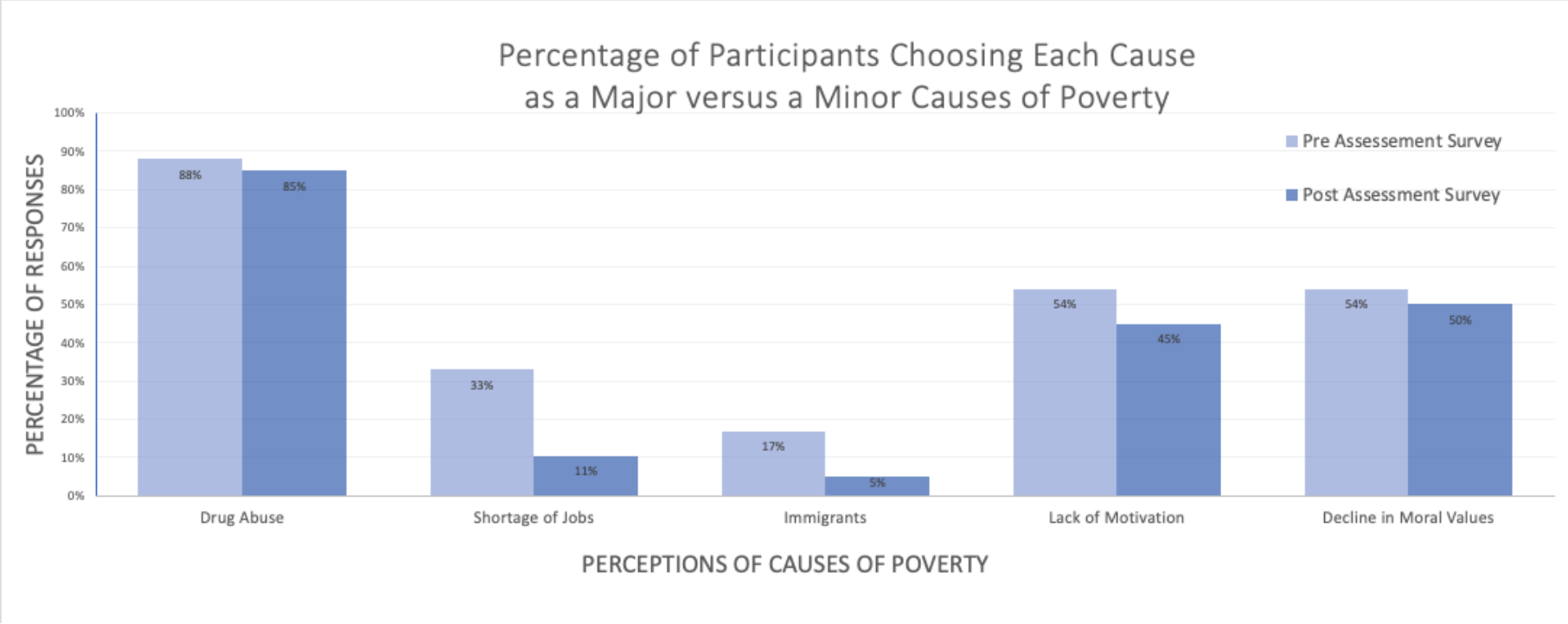


Figure 15. Graph showing the percentage of participants choosing factors as a major cause of poverty pre-initiative and post-imitative.

In the pre-survey, the top four responses that participants selected as major causes of poverty today were drug abuse (88%), too many single parent families (78%), medical bills (67%), and the welfare system (67%). The post-survey revealed similar responses with drug abuse (85%), too many single parent families (80%), and medical bills (70%) being chosen most often. The largest difference from pre to post-survey was a reduction from pre to post-survey in the belief that a shortage of jobs (Δ= -.22) and that there are too many immigrants (Δ= -.12). Three items increased slightly on the post-test, medical bills (Δ= .03), too many single parent families (Δ= .05), and notably the poor quality of public education (Δ= .04).

Programs and policies focused on assisting the poor. Another set of questions surrounding challenges faced by families from disadvantaged households asked respondents to answer whether or not they supported programs or policies focusing on assisting the poor. Any answer of support was given the numeric equivalent of one and opposed equaled zero. Results were gathered by finding the mean of each question for all respondants answers in both the pre and post-surveys, then comparing those means. The programs or policies addressed were increasing minimum wage (mean increased 5% to .80), increasing tax credits for low income workers (mean increased 1% to .80), increasing cash assistance for families (mean decreased 10% to .32), expanding subsidized daycare (mean decreased 3% to .89), spending more for medical care for poor people (mean decreased 4% to .63), making food stamps more available to poor people (mean increased 20% to .53), spending more for housing for poor people (mean decreased 18% to .32), and guaranteeing a minimum income for everyone (mean decreased 5% to .53).

In the presurvey, the top three responses supported by the participants were expanding subsidized daycare (92%), increasing tax credits for low-income families (79%), and increasing the minimum wage (75%). The top responses post-initiative were the same expanding subsidized daycare (89%), increasing tax credits for low-income families (80%), and increasing the minimum wage (80%). The largest difference from pre to post-survey was an increase of support in making food stamps available to the poor (Δ=.20) and a decrease in support for spending more money on housing for the poor (Δ= -18). Additionally, there was a decrease in increasing cash assistance for families (Δ=-10). Figure 16 depicts participant support for government initiatives and policies pre and post-intervention.

Economic challenges faced by participants or participant's immediate family. As a measure of the participants' experience with wealth and poverty, participants were given various financial scenarios and asked if they or anyone in their family had experienced the scenario in the past year. If they responded yes, they were assigned a value of one, and if they answered no, the value assigned was zero. All the answers for each question were averaged, and the mean was compared pre and post-test. Participants were asked if any of the following had happened been unable to find child care or were forced to take their child out of daycare because they could not pay (mean decreased 5% to .30), fallen behind on rent or mortgage payments (mean decreased 14% to .15), fallen behind on utilities (mean increased 12% to .45), been unable to pay for adequate transportation to get to work or school (mean increased 2% to .10), been unable to get medical care because of the cost (mean increased 8% to .50) had trouble paying a credit card balance (mean decreased 11% to .50), having too little money to buy food (unchanged value pretest to posttest .25), getting divorced or separated in part because of financial problems (mean

decreased 3% to .10), been a victim of a crime (mean decreased 13% to .20), had problems with drug or alcohol abuse (mean decreased 31% to .20). Figure 17 depicts the percentage of respondents who reported that someone in their family has faced an economic challenge in the past year

The most commonly reported issues faced according to the pre-survey were being unable to pay credit card bills (61%), problems with drugs or alcohol (46%), and being unable to get medical care because of finances (42%). In the post-survey, the most common issues were unable to pay credit card bills (50%), being unable to get medical care because of finances (50%), and falling behind on utilities (45%). The largest change from pre-survey to post-survey was a decrease in the reported amount of problems with drugs or alcohol (Δ=-31) and an increase in the reported amount of reported participants falling behind on utilities (Δ=12).

Goal 4: Students' absence rate in 2019-20 will decrease 5% as compared to the same period in the 2018-19 school year.

A summative measure of student attendance included recording the days that students were absent from school. As a comparison, we used the absence rate from the 2018-19 school year and the 2019-20 school year during July through November, the months that the initiative was implemented. Except for a 1% increase of absences in August 2019, each month showed a reduction in absences during 2019 with an overall decrease of 4%. Figure 16 shows the student absence rate by percentage, comparing the period of implementation in 2018 and 2019.

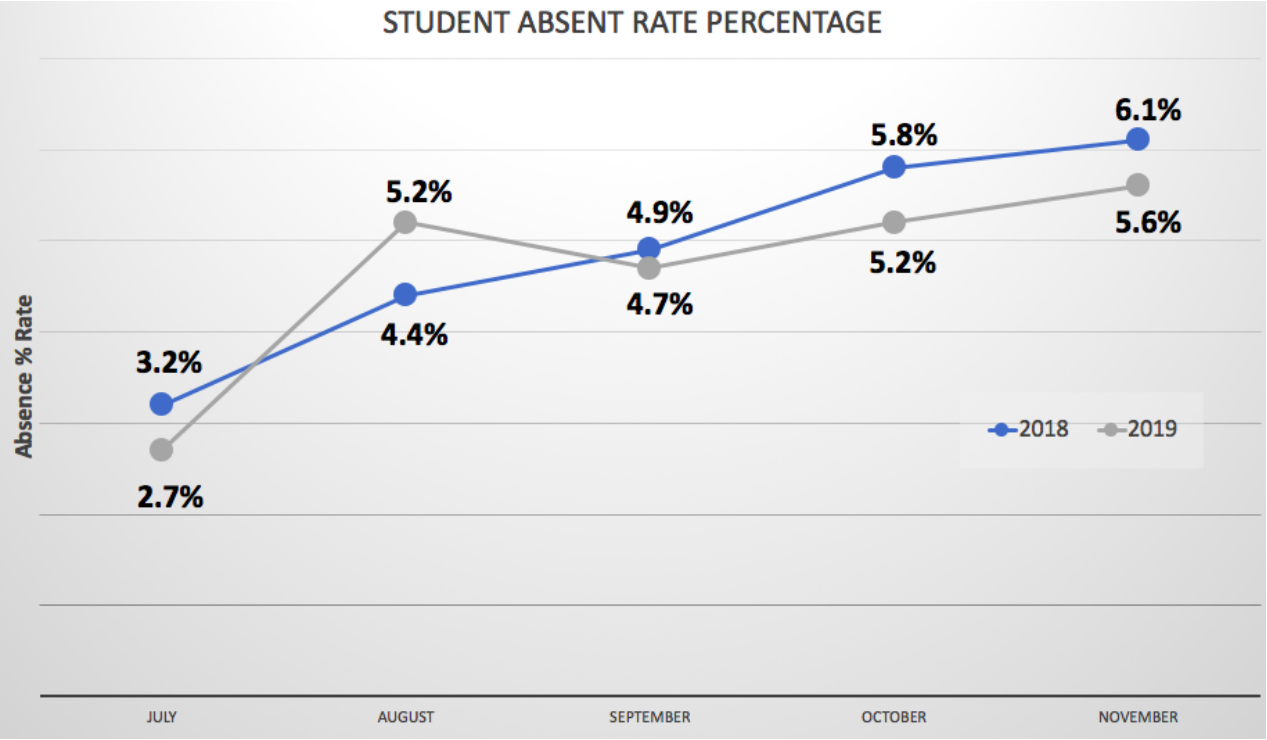


Figure 16. Graph showing student absence rate in same period as initiative from 2018 to 2019.

Goal 5: Students' Office Discipline Referrals in 2019-20 will decrease 10% as compared to the same period in the 2018-19 school year.

An additional measure focusing on students is the record of office discipline referrals that were reported compared to the same period in the 2018-19 school year. In 2019, there was a decrease of 45% overall in office discipline referrals during the initiative period, including November 2019, when there were 17 office discipline referrals recorded, 24 less than the previous year. All months during the implementation show decreases. Figure 17 below represents office discipline referrals for July through November for 2018 and 2019 and an overall decrease of 45%.

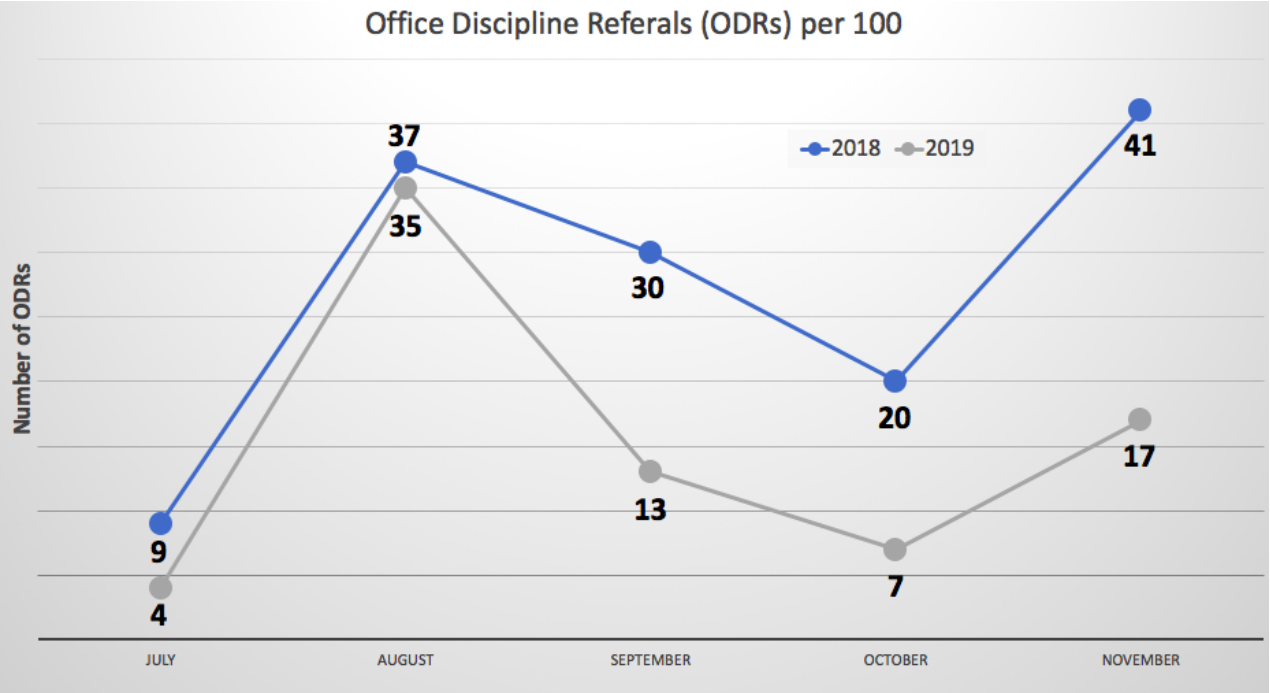


Figure 17 . Graph showing student office referral rate in same period as initiative from 2018 to 2019.

Findings

Ultimately the goal of this initiative is to decrease the student dropout rates and increase student learning in order to create influential, justice-seeking citizens that will continue to focus on eliminating the stigma of at-risk as a boundary for students in public education. Our short term goals were to increase teachers' sense of self-efficacy surrounding their ability to teach students using trauma-informed pedagogy, increase teachers' asset-based ideology and decrease deficit-based thinking, and increase teachers' knowledge about the challenges faced by students and families from economically disadvantaged families**.** Additionally, our goals were to reduce student absence rates and office discipline referrals.

Immediately noticeable were the attendance and office discipline referral reductions. A comparison of data collected from the same time last year to the time of the initiative shows student absences dropped 4%, and office discipline referrals were reduced by 45%. Much research has shown absence rate and student office discipline referrals are leading indicators of student academic success and high school dropout rate. (Allensworth & Easton, 2007; Blanfanz & Boccanfuso, 2007; Balfanz, et al., 2007). Based on this research, we believe the reduction in student absences and office discipline referrals during our improvement initiative timeline are on track to increase our student academic achievement as well. We will continue to analyze student academic data post initiative.

Further data indicates teachers became more confident in their ability to teach students from economically disadvantaged homes, understood the students' potential traumatic experiences, and focused more on the assets-based thinking process rather than focusing on deficit-based thinking. While none of our results are as positive as the reduction in office discipline referrals, we believe that the interconnectedness of the initiative shows an overall

positive trend and indicates further study with a larger sample size could prove to indicate more robust findings.

The largest increase pre to post-survey was the 25% of teachers who report they receive adequate professional development to work with students experiencing trauma or toxic stress and notably fourteen percent of teachers reported an increase in their confidence to implement interventions that minimize conflicts when a students' home behavior is not consistent with school norms.. Although our goal of a 10% increase in a teachers' sense of self-efficacy surrounding their ability to teach students using trauma-informed pedagogy was not met as an overall goal it is important to note that crucial survey questions did increase to or past the 10% threshold. Ten percent of teachers reported that they had higher confidence in their ability to use what they know about their students' background to develop an effective learning environment. Twelve percent of teachers reported that they have higher confidence to develop partnerships with parents from diverse cultural and linguistic backgrounds. On a scale from zero to five teachers reported they thought the effectiveness of this training was 4.13. Overall results for self-efficacy left us optimistic about increased teacher advocacy for students with trauma or economic hardship.

Changing an ideology is more complex than what a survey can measure, and one of the most difficult of our foci was measuring the change between asset and deficit thinking for teachers. On the surveys there were eleven pairs of words, and using the pre-survey as a baseline, we measured on the post-survey how many participants had chosen the word that was the asset or strength-based choice. Out of the eleven pairs, there was positive growth on seven of the options. The responses engage, adapt to, dynamic, empower, and unique all increased at least 10% pre to post-survey. On a scale from zero to five teachers reported they thought the

effectiveness of this training was 3.89. This indicates that the staff found session three to be the least effective out of the three.

The goal of increasing the understanding of challenges faced by students and families from economically disadvantaged households was not met overall, but one item that we consider a major success is that there was a 28% decrease in teachers who believe that people are not doing enough to get themselves out of poverty. This indicates that 28% of our staff changed their opinion to agree with the idea that there are situations outside of a person's control that can be a cause of poverty. Generally, there was very little increase or decrease in the other items related to challenges. On a scale from zero to five teachers reported they thought the effectiveness of this training was 4.42, and of the three trainings, the teachers found PD Session number two to be the most effective.

Leadership Lessons Learned

Lesson 1: Vulnerability matters. Challenging topics such as poverty, wealth, trauma, abuse, and beliefs about poverty are incredibly personal and sensitive. We learned that trust is incredibly important, and trust between work colleagues does not always exist. We attempted to make topics comfortable for participants. However, these conversations are hard to have authentically in the workplace, and the researchers may not be completely trusted by the participants. Developing trust between participants and researchers and trust within the participant group was crucial to developing an honest and authentic space for this material. Caring begins with knowing. It requires listening, understanding, and accepting. An open heart is vulnerable. Confronting vulnerability allows us to be present (Bolman & Deal, 2013).

With progress in mind, we recommend the following to improve the trust and vulnerability of the researchers as well as the participants who work together in the professional development sessions:

- Smaller group sessions. Our professional development sessions occurred with the entire certified staff present. While this format worked well for time and the ease of presentation, it did not allow for trusting relationships to develop. Conducting professional development in smaller groups would potentially create bonds that would allow individuals to share more deeply and participate without shame or guilt regarding questions or sharing personal experiences.
- Choice in participation. While it would be beneficial to the project if everyone participated, as the direct supervisors, we did not require any staff member to complete any survey. We believe it is essential to allow participants the absolute freedom to choose not to participate during the professional development sessions, and the awareness that they have the choice to do so created a trust with the researchers.
- Explicit safe spaces. The sensitive issues discussed purposefully and through informal conversations were emotional and private. While we were fortunate that some of the staff participated, purposefully creating a safe space to share information may have encouraged other members of the group to talk and share. We recommend norms or ground rules at every session that clearly and explicitly create a space that will create comfort for all involved.

Lesson 2: An individual's ideology is deeply rooted in who they are as a person. We learned that a person's ideology is deeply rooted, and their belief system is held tightly, sometimes in ways we did not expect. The way that individuals view persons who

are economically disadvantaged, immigrants, or individuals who have committed crimes is a personal, sometimes long-held belief system that goes back generations. This ideology requires more than a 90 day timeline of professional development to grow and develop. A critical consciousness or critical awareness of self and one's own values, beliefs, and dispositions is needed when it comes to serving poor children of color (Brown, 2004; Dantley, 2005: Gay & Kirkland, 2003; Gooden, 2005; McKenzie et al., 2008). Ultimately, it is not only teachers who are underprepared to teach and serve economically and culturally diverse classroom populations. Principals in their studies are also underprepared to lead diverse schools (Young, Maden, & Young, 2010). Leadership reform too often focuses exclusively on instructional, transformational, and transactional leadership. It has become increasingly clear that the intensification of these same leadership strategies alone will do nothing to address the cultural needs of minoritized students including students from economically disadvantaged households (Khalifa, et al., 2016). We recommend the following in order to acknowledge and address this critical lesson:

- Principals set the tone for their school and therefore must believe all students can learn and achieve academic success. More importantly, these school leaders must convey this belief to the teachers in their buildings (Lomotey, 1989). The principal's critical consciousness serves as the foundation to create this belief. This critical consciousness also precedes creating the setting for and the expectation of teachers' exploration of self-awareness and an understanding of the context in which they teach. Principals must play a leading role in maintaining cultural responsiveness in their schools (Maxwell, 2016). School leaders should interrogate their own personal assumptions about race, class, and culture and the impact these assumptions have on their school community. Doing so will

allow school leaders to create safety for teachers seeking a model of vulnerability. Likewise, principal critical self-awareness work allows leaders to develop strategies for developing teachers who are not, and may even resist becoming culturally responsive (Khalifa, 2013).

- Cultivate a collection of easily comprehensible articles that can be made available to groups participating in the study. Information related to the ideas that "at-risk" might be a misnomer, and that persons who are economically disadvantaged are often working to change their status is not a common idea to many of the participants, and additional resources would give them additional opportunities to hear and reflect on the material.
- Tangible resources and references can serve as evidence and provide a safe way for teachers to remind, support, or challenge peers. Information surrounding trauma is relatively new and not yet widely accepted in the general education environment. Providing resources that can serve as background knowledge for those individuals that want to continue their growth in this area could use this set of resources as an anchor to utilize in conversations with peers in a safe, rather than confrontational way. Instead of focusing on opinions, the resources would serve as sounding boards to begin conversations and capitalize on facts.

Lesson 3: Utilize personnel. A great deal of thought was put into how the Community Resource Coordinator (CRC) would fit into the improvement initiative. Researchers planned on the position being utilized as a way that teachers could ask questions and enhance their understanding and development without having to work directly with their supervisors. After the initiative was over, we found there was no interaction with the CRC, with the exception of teachers who reported they had met with the CRC on the survey. Perhaps it was not clear that the

CRC was available for consult, or perhaps there was not time for the teachers to seek the CRC out, but through evaluating this personnel assignment and the teacher reaction to it, researchers believe that there are multiple layers of human capital that could be utilized more effectively.

- Create and train a multi-person leadership team that has an extensive understanding of the work and is trained in how to coach teachers. Provide ongoing training and time to reflect on practices around the school.
- Create clear guidelines and pathways for utilization of the trained leadership team.
    - Clearly define who to go to with questions and coaching needs.
    - Utilize technology as a way to communicate with members.
- Utilize staff check-ins on an interval basis to provide the opportunity to bring this work back up for problem-solving at informal intervals.

Lesson 4: Time is a limited resource. After each cycle of improvement, there was never enough time to accomplish all the work we wanted to do. Guskey (2002) indicated that the change in beliefs was the fourth step in a systematic process that occurs through professional development. The ninety-day timeline does not allow for adequate questioning, reflection, implementation, and ultimately change in perspective. The following is recommended in order to see actual change in staff perspectives:

- Follow Guskey's (2002) model for change. 1) professional development, 2) change in teachers' classroom practices, 3) change in student learning outcome, and 4) change in teachers' beliefs and attitudes.
- Develop a multi-year improvement plan with long-term goals while continuing to focus on multiple short-term goals using 90-day improvement cycles.

- Provide teachers with time to absorb new knowledge, as well as time to use the change in their practice.
- Provide time for observation and personal development related to the change that may occur outside of the classroom or school building, such as conferences or workshops.

Leadership and Equity for Social Justice

For nearly 60 years the academic underperformance of students from economically disadvantaged households has been explained away by placing blame on the student or the student's family. Focusing on presumed deficits in language, culture, or family has created a domination of deficit ideology in educational leaders and teachers (Bereiter & Englemann, 1966; Hart & Risley, 1995; Payne, 2005). An impoverished curriculum is born from this deficit ideology. Students in poverty learn less because they are taught less (Theoharis & Scanlan, 2015).

The number of Americans living in poverty has reached an all-time high, and the percentage of US citizens falling below the poverty line is the highest it has been in 20 years (Theoharis & Scanlan, 2015). The children of these families are burdened with the realities of poverty as well as the pathological deficit ideology that abounds. Leaders who are committed to creating socially just schools must ensure ambitious academic goals are set and held for all students, students and families are valued and respected, and any categorical indicator (including socioeconomic status) does not directly correlate with underachievement. Furthermore, leaders of socially just schools must provide the opportunity and environment for teachers to explore conversations on topics such as trauma, class, and implicit bias, regardless of how difficult these conversations may be.

Collecting and analyzing data throughout the improvement initiative, changing staff dispositions: ending the perpetuation of "at-risk" for students from economically disadvantaged households provided us an opportunity to begin creating change for improvement.
Sharing our findings with educators and stakeholders across communities is still to come. Building the capacity of all teachers to improve instructional practices and efficacy in teaching students from economically disadvantaged homes is not only a demonstration of advocacy for all students but a social justice call to action that requires a passionate response. We are excited to have contributed to this effort.

Limitations

Although findings in this study may not be transferable, one of the strengths of this study lies in the internal generalizability of this research. Our ability to survey participants across the entire school setting, in each grade level, and certified staff members outside the classroom setting allowed us to provide numerical data representing a distribution across the school setting of attitudes, perceptions, and beliefs thus creating an internal generalizability. The internal generalizability increases the validity of this study as a whole (Maxwell, 1992). The lessons learned in improving instructional practices through increasing efficacy and building teachers' capacity to teach students should be considered for replication in additional settings.

We noted two limitations as we reviewed our findings: 1) researchers as primary supervisors and evaluators, and 2) the lack of identifiers in the study. Teacher perception of the employer-employee relationship can not be changed enough to assure all teachers they will not be held liable for their information. Even when guaranteed verbally and in writing answers cannot be connected to an individual, teachers may not believe this to be true. Teachers who do not believe responses are anonymous may choose not to participate at all, participate only

partially, or participate but fabricate answers for fear of retribution. Any of these are possibilities and have the potential to have changed the results of our study.

As a design team, we eliminated all identifiers. While this decision may have encouraged teacher participation, it reduced our ability to capture quantitative significance. However, it is important to note that the quantitizing in our research was done to allow us to discern and show regularities and changes in this qualitative data set around attitudes and beliefs we might not have otherwise have been able to see (Sandelowski, et al. 2009). There is a difference in thinking about this research in terms of variables and correlations and in terms of events and processes. We approached the analysis of this data from a process theory rather than a variance theory. While variance theory deals with variables and the correlations among them, process theory deals with events and the processes that connect them (Mohr, 1982). In our case, the change in attitudes perceptions and beliefs serve as the event, and the professional development around trauma informed pedagogy, deficit ideology, and the realities for economically disadvantaged households serve as the process which occured (Maxwell, 2010). Counting the number of instances participants responded to a certain answer choice need not be interpreted in variance terms, rather readers should interpret it in process terms. Repeatedly choosing the asset-based thinking answer for example can and should be seen as simply describing the occurrence of beliefs in this set of individuals.

Conclusion

Teacher perception of students impacts their expectations, affects how students learn, shapes classroom practices, and classroom environments (Rosenthal & Jacobson, 1968; Skiba, 2002). These perceptions include students from economically disadvantaged households.

Approaching students from a deficit ideology weakens an educator's ability to recognize giftedness in students in its various forms (Ford & Grantham, 2003). Without deepening equity literacy through systematic professional development educators will, without intended malice, continue to perpetuate these myths and potentially lower their expectations of their students in poverty. Generative leadership within educational systems should consistently strive to educate teachers and communities about the impact of persistent deficit ideologies surrounding students from economically disadvantaged households and expand their understanding of equity literacy. Issues related to deficit-based thinking, as well as socio-economic hardship and trauma, continue to create barriers to opportunities and academic success for our students from economically disadvantaged households. Professional development designed for teachers to develop positive dispositions, knowledge, and efficacy through capacity, is a first step in the journey to increasing opportunities and academic achievement for all students.

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Appendix A

Pre Survey

Default Question Block

By participating in this study, you are agreeing to provide the most honest answers you can. Any responses you provide will be voluntary and anonymized so that neither the research team nor additional respondents will know which response is yours.

By selecting "I agree" you are consenting to the conditions described above.

- ◯ I agree
- ◯ I do not agree

In your opinion, which is the bigger cause of poverty today?

- ◯ People are not doing enough to get themselves out of poverty
- ◯ There are circumstances beyond their control that cause people to be poor

For each of the following, please select the answer that best describes your feelings about the causes of poverty.

	Major Cause	Minor Cause
Drug Abuse	◯	◯
Medical Bills	◯	◯
Too many jobs being part time or low wage	◯	◯
Too many single-parent families	◯	◯
A shortage of jobs	◯	◯
The welfare system	◯	◯
Too many immigrants	◯	◯
Lack of motivation	◯	◯
A decline in moral values	◯	◯
Poor quality of public education	◯	◯

The following items are things the government could do to directly help the poor in the US. Please answer if you support or oppose each item.

	Support	Oppose
Increasing minimum wage	◯	◯
Increasing tax credits for low-income workers	◯	◯
Increasing cash assistance for families	◯	◯
Expanding subsidized daycare	◯	◯
Spending more for medical care for poor people	◯	◯
Making food stamps more available to poor people	◯	◯

	Support	Oppose
Spending more for housing for poor people	○	○
Guaranteeing everyone a minimum income	○	○

When you think of your situation today, do you think of yourself as poor?

- ○ Yes
- ○ No

When you think about your family, both family living close and your other close relatives like aunts, uncles, and cousins, is anyone in your family poor?

- ○ Yes
- ○ No

Do you have any close friends who are poor?

- ○ Yes
- ○ No

In the past year, have you or someone in your immediate family had a serious problem with any of the following?

	Yes	No
Being unable to find child care or being forced to take your child out of daycare because you can't pay?	○	○
Falling behind on your rent or mortgage payments?	○	○
Falling behind on your gas, electric, or phone bills?	○	○
Being unable to pay for adequate transportation to get to work or school?	○	○
Being unable to get medical care because of the cost?	○	○
Having trouble paying a credit card balance?	○	○
Having too little money to buy food?	○	○
Getting divorced or separated, in part because of financial problems?	○	○
Being a victim of a crime?	○	○
Having a problem with alcohol or drug abuse?	○	○

If you were asked to use one of these five names for the economic class you belong in, which would it be?

- ◯ Upper Class
- ◯ Upper Middle Class
- ◯ Middle Class
- ◯ Poor
- ◯ Destitute

Rate how confident you are in your ability to successfully accomplish each of the tasks listed below. Please rate your degree of confidence by recording a number from 0 (no confidence at all) to 5 (completely confident). Remember that you may use any number between 0 and 5.

I am able to:

	0	1	2	3	4	5
Assess students' behaviors with the knowledge that acceptabel school behaviors may not match those that are acceptable within a students's home culture.						
Establish high behavioral standards that encourage students to produce high quality work.						
Use what I know about my students' background to develop an effective learning environment.						
Teach students how to work together.						
Develop a partnership with parents from diverse cultural and linguistic backgrounds.						
Implement interventions that minimize conflicts when a student's home behavior is not consistent with school norms.						

	0	1	2	3	4	5
Manage situations in which students are defiant.						
Prevent disruptions by recognizing potential causes for misbehavior.						
Redirect students' behavior without the use of coercive means (i.e., consequences or verbal repremand)						

For each of the following pairs, select the phrase or word you identify with most.

Choose one:

- ◯ What's wrong?
- ◯ What's working?

Choose one:

- ◯ Discover and Adapt
- ◯ Predict and Control

Choose one:

- ◯ Overcoming Weakness
- ◯ Emphasizing Possibilities

Choose one:

- ◯ Intervene
- ◯ Engage

Choose one:

- ◯ Adapt to
- ◯ Reform

Choose one:

- ◯ Opportunity
- ◯ Crisis

Choose one:

- ◯ Static
- ◯ Dynamic

Choose one:

- ◯ Control
- ◯ Empower

Choose one:

- ◯ Understand
- ◯ Diagnose

Choose one:

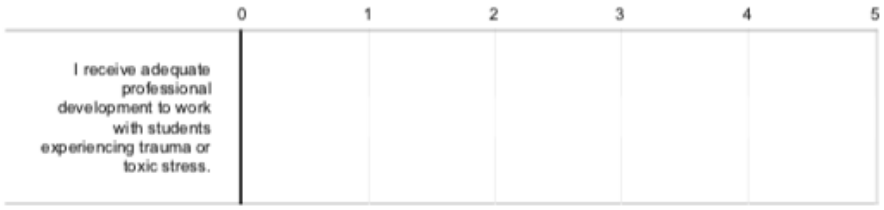
- ◯ Process Focused
- ◯ Behavior Focused

Choose one:

- ◯ Deviant
- ◯ Unique

Rate the level with which you agree with the following statements. Please rate your degree of agreement by recording a number from 0 (Do not agree at all) to 5 (completely agree). Remember that you may use any number between 0 and 5

	0	1	2	3	4	5
When an adult uses a loud voice or a stern tone it can trigger a high stress response in some students, making behavior worse.						
Often, students will only stop a negative behavior if an adult uses an aggressive tone or strong words.						
The adults in my school give supportive, corrective feedback to one another when witnessing an adult speaking harshly to a student.						
The adults in the school help each other develop creative, strengths based responses to difficult problems or issues.						
I generally consider my classroom or workspace a calm and peaceful envronment.						
I feel overwhelmed and unable to support my students who have or are experiencing trauma in their lives.						
The expectations of teachers to consider every student's traumatic experiences is unrealistic.						
I have the ability to address my students' social and emotional needs when these needs interfere with learning.						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I receive adequate professional development to work with students experiencing trauma or toxic stress.

Appendix B

Post Survey

Default Question Block

By participating in this study, you are agreeing to provide the most honest answers you can. Any responses you provide will be voluntary and anonymized so that neither the research team nor additional respondents will know which response is yours.

By selecting "I agree" you are consenting to the conditions described above.

- ◯ I agree
- ◯ I do not agree

How many times did you receive coaching from the Community Resource Coordinator during this professional development cycle?

- ◯ 0
- ◯ 1-3
- ◯ 4-5
- ◯ More than 5 times

In your opinion, which is the bigger cause of poverty today?

- ◯ People are not doing enough to get themselves out of poverty
- ◯ There are circumstances beyond their control that cause people to be poor

For each of the following, please select the answer that best describes your feelings about the causes of poverty.

	Major Cause	Minor Cause
Drug Abuse	◯	◯
Medical Bills	◯	◯
Too many jobs being part time or low wage	◯	◯
Too many single-parent families	◯	◯
A shortage of jobs	◯	◯
The welfare system	◯	◯
Too many immigrants	◯	◯
Lack of motivation	◯	◯
A decline in moral values	◯	◯
Poor quality of public education	◯	◯

The following items are things the government could do to directly help the poor in the US. Please answer if you support or oppose each item.

	Support	Oppose
Increasing minimum wage	◯	◯

	Support	Oppose
Increasing tax credits for low-income workers	○	○
Increasing cash assistance for families	○	○
Expanding subsidized daycare	○	○
Spending more for medical care for poor people	○	○
Making food stamps more available to poor people	○	○
Spending more for housing for poor people	○	○
Guaranteeing everyone a minimum income	○	○

When you think of your situation today, do you think of yourself as poor?

- ○ Yes
- ○ No

When you think about your family, both family living close and your other close relatives like aunts, uncles, and cousins, is anyone in your family poor?

- ○ Yes
- ○ No

Do you have any close friends who are poor?

- ○ Yes
- ○ No

In the past year, have you or someone in your immediate family had a serious problem with any of the following?

	Yes	No
Being unable to find child care or being forced to take your child out of daycare because you can't pay?	○	○
Falling behind on your rent or mortgage payments?	○	○
Falling behind on your gas, electric, or phone bills?	○	○
Being unable to pay for adequate transportation to get to work or school?	○	○
Being unable to get medical care because of the cost?	○	○
Having trouble paying a credit card balance?	○	○

	Yes	No
Having too little money to buy food?	○	○
Getting divorced or separated, in part because of financial problems?	○	○
Being a victim of a crime?	○	○
Having a problem with alcohol or drug abuse?	○	○

If you were asked to use one of these five names for the economic class you belong in, which would it be?

- ○ Upper Class
- ○ Upper Middle Class
- ○ Middle Class
- ○ Poor
- ○ Destitute

Rate how confident you are in your ability to successfully accomplish each of the tasks listed below. Please rate your degree of confidence by recording a number from 0 (no confidence at all) to 5 (completely confident). Remember that you may use any number between 0 and 5.

I am able to:

	0	1	2	3	4	5
Assess students' behaviors with the knowledge that acceptabel school behaviors may not match those that are acceptable within a students's home culture.						
Establish high behavioral standards that encourage students to produce high quality work.						
Use what I know about my students' background to develop an effective learning environment.						

Overcoming Weakness

Emphasizing Possibilities

Choose one:

Intervene

Engage

Choose one:

Adapt to

Reform

Choose one:

Opportunity

Crisis

Choose one:

Static

Dynamic

Choose one:

Control

Empower

Choose one:

Understand

Diagnose

Choose one:

Process Focused

Behavior Focused

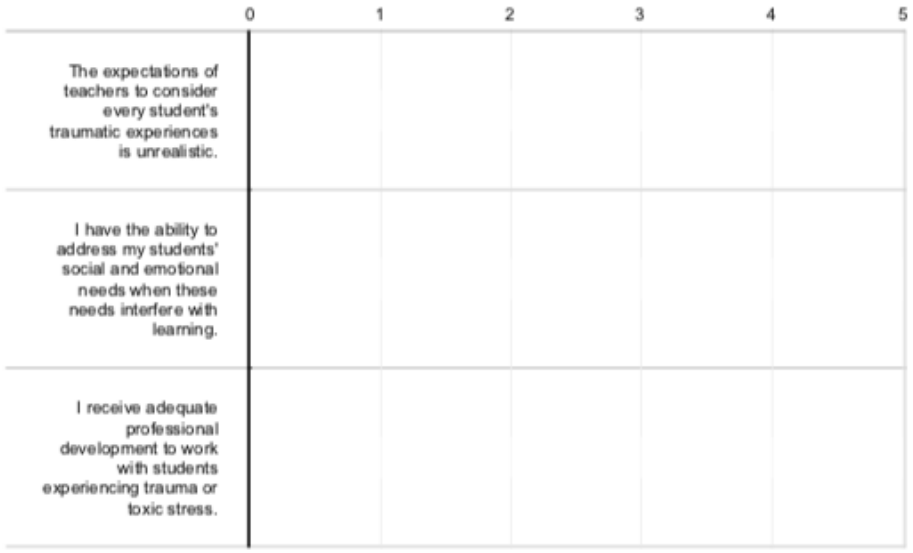
Choose one:

Deviant

Unique

Rate the level with which you agree with the following statements. Please rate your degree of agreement by recording a number from 0 (Do not agree at all) to 5 (completely agree). Remember that you may use any number between 0 and 5.

	0	1	2	3	4	5
Student disruptive behaviors may be linked to physical changes related to a stressful living environment.						
When an adult uses a loud voice or a stern tone it can trigger a high stress response in some students, making behavior worse.						
Often, students will only stop a negative behavior if an adult uses an aggressive tone or strong words.						
The adults in my school give supportive, corrective feedback to one another when witnessing an adult speaking harshly to a student.						
The adults in the school help each other develop creative, strengths based responses to difficult problems or issues.						
I generally consider my classroom or workspace a calm and peaceful envronment.						
I feel overwhelmed and unable to support my students who have or are experiencing trauma in their lives.						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The expectations of teachers to consider every student's traumatic experiences is unrealistic.
I have the ability to address my students' social and emotional needs when these needs interfere with learning.
I receive adequate professional development to work with students experiencing trauma or toxic stress.

Appendix C

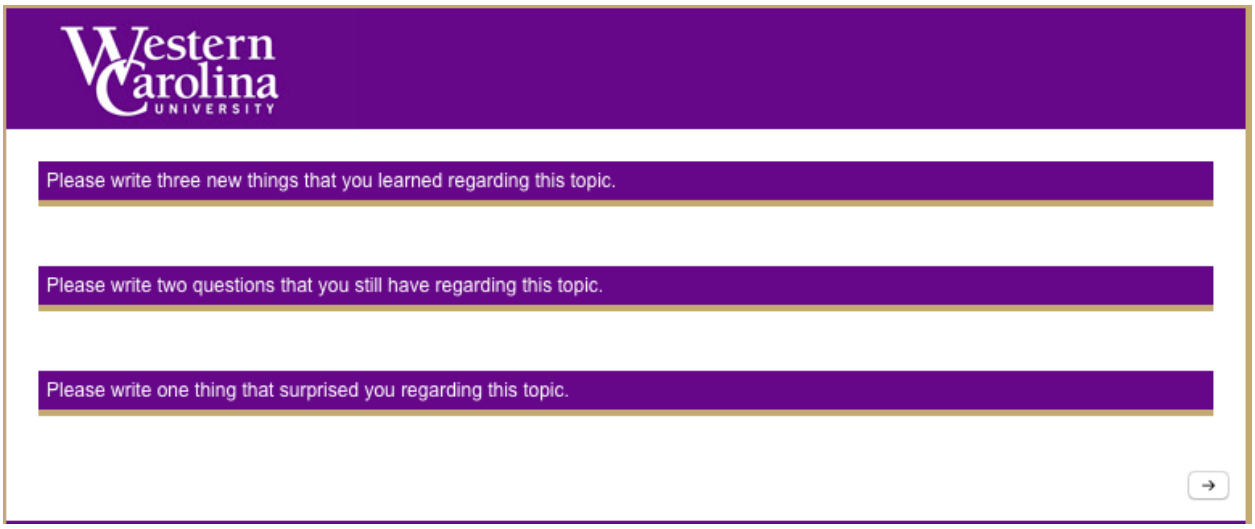
WMES Community Resource Coordinator

Coaching Log

Participant # (No Names)	**Date of Request**	**Topic Requested**	**Notes**
1			
2			
3			
4			
5			
6			

Appendix D

Exit Slip Journal to Evaluate Staff Learning



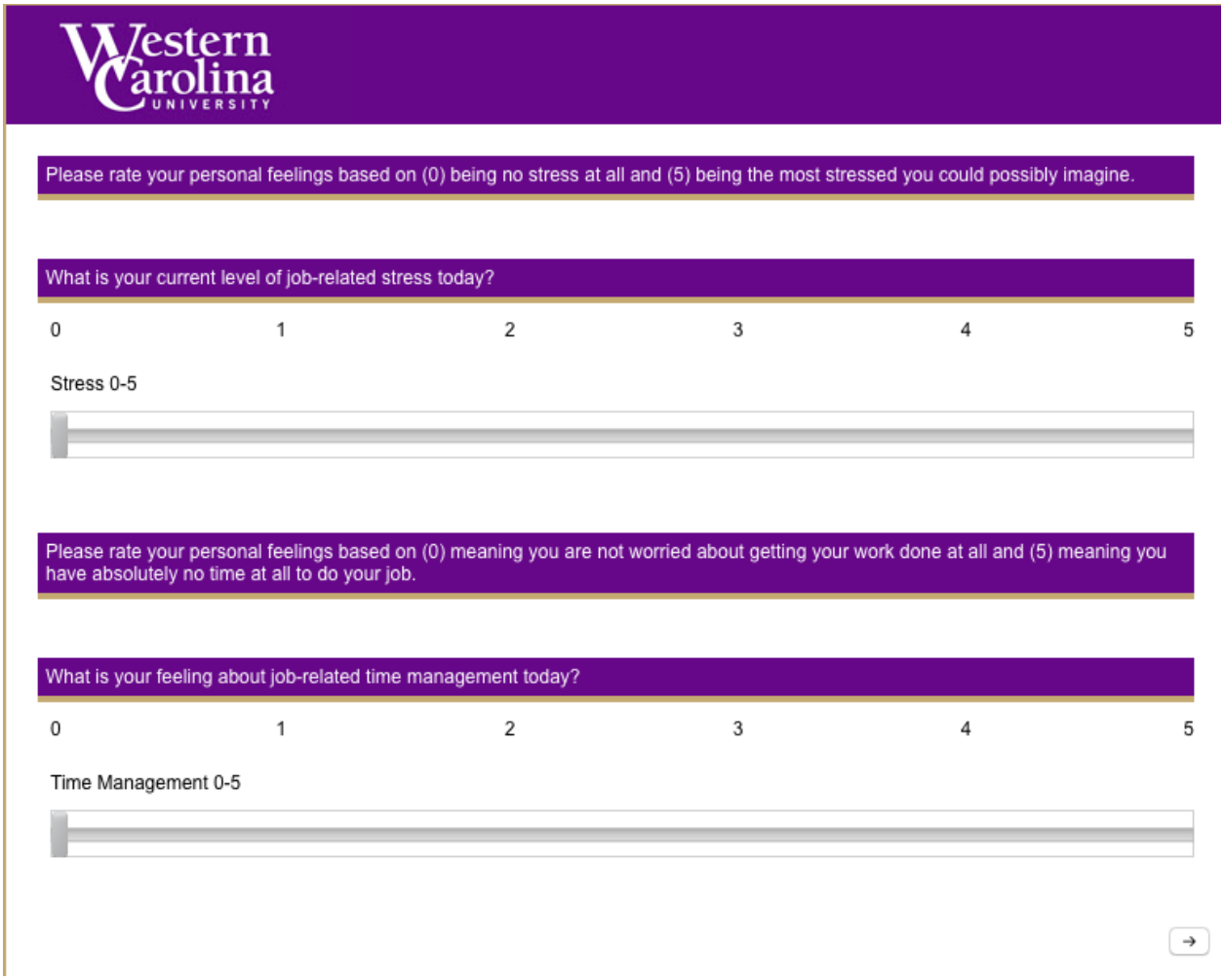
Appendix E

Member Checks

Group # (No Names)	**Date of Check**	**Topic Discussed**	**Notes**	**Group Consensus Yes/No**
1				
2				
3				

Appendix F

Stress and Time Management Survey



Appendix G

School-Wide Attendance Quick Check Protocol

Date_____

Name of person completing the survey _____

% of students absent at least one day this week _____

% of students absent more than 3 days this week_____

% of students absent more than 5 days this week_____

Has attendance improved or declined since the last check in? _____

Notes:

Appendix H

School-Wide Attendance Quick Check Protocol- Revised

Month_____

Absent rate % 2018 _____

Absent rate % 2019 _____

Notes:

Appendix I

School-Wide Office Discipline Referral Quick Check Protocol

Date_____

Name of person completing the survey _____

% of students with one ODR this week_____

% of students with more than 3 ODR's this week _____

% of students with more than 5 ODR's this week _____

Have the number of ODR's improved or declined since the last check in? _____

Notes:

Appendix J

School-Wide ODR Quick Check Protocol- Revised

Month_____

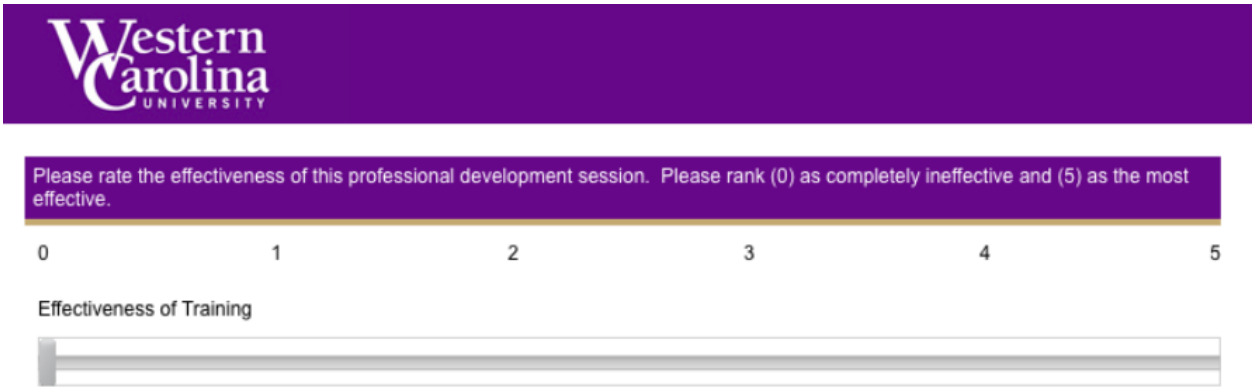
ODR's 2018 _____

ODR's 2019 _____

Notes:

Appendix K

Evaluation of PD Effectiveness



Appendix L

Attendance at Professional Development Session

Topic _____

Date _____

Print Name	**Signature**

Appendix M

Pre-assessment and post-assessment mean scores

Section 1: Trauma-Informed Pedagogy		
Question		
I have confidence in my ability to		
	Pre Assessment	Post Assessment
12.1 Assess student behaviors with the knowledge that acceptable school behaviors may not match those that are acceptable within a student's home culture	3.38	3.6
12.2 Establish high behavioral standards that encourage students to produce high quality work	3.67	3.7
12.3 Use what I know about my students' background to develop an effective learning environment	3.13	3.65
12.4 Teach students how to work together	3.58	3.8
12.5 Develop a partnership with parents from diverse cultural and linguistic backgrounds	2.67	3.3

12.6 Implement interventions that minimize conflicts when a student's home behavior is not consistent with school norms	2.96	3.65
12.7 Manage situations in which students are deviant	3.04	3.30
12.8 Prevent disruptions by recognizing potential causes for misbehavior	3.46	3.4
Level of Agreement to each Statement	Scale 0-5 (0 Disagree and 5 Agree)	
25.1 Student disruptive behaviors may be linked to physical changes related to a stressful living environment	4.42	4.26
25.2 When an adult uses a loud voice or a stern tone it can trigger a high stress response in some students; making behavior worse	4.29	4.21
25.3 Often, students will only stop a negative behavior if an adult uses an aggressive tone or strong words	2.09	1.79

25.4 The adults in my school give supportive, corrective feedback to one another when witnessing an adult speaking harshly to a student	2.08	2.11
25.5 The adults in my school help each other develop creative strengths based on responses to difficult problems or issues	2.79	3.16
25.6 I generally consider my classroom or workspace a calm and peaceful environment	3.71	3.37
25.7 I feel overwhelmed and unable to support my students who have or are experiencing trauma in their lives	2.21	1.84
25.8 The expectations of teachers to consider every student's traumatic experiences is unrealistic	1.78	1.79
25.9 I have the ability to address my students' social and emotional needs when these needs interfere with learning	3.04	2.89
25.10 I receive adequate professional development to work with students experiencing trauma or toxic stress	2.08	3.37

Appendix N

Mean scores for pre-assessment and post-assessment

Section 2: Asset-Based Versus Deficit-Based Ideology		
Forced Choice	Asset-Based Response Chosen	
	Pre Assessment	Post Assessment
What's working vs. what's wrong	0.21	0.50
Discover and adapt vs. predict and control	0.54	0.50
Emphasizing possibilities vs. overcoming weakness	0.50	0.50
Engage versus intervene	0.63	0.75
Adapt to versus reform	0.58	0.70
Opportunity versus crisis	1.00	0.90
Dynamic versus static	0.79	1.00
Empower versus control	0.67	1.00

Understand versus diagnose	0.88	0.75
Process focused vs. behavior focused	0.29	0.35
Unique vs. deviant	0.79	0.90

Appendix O

Pre-assessment and post-assessment mean scores

Section 3: Realities of families from economically disadvantaged households		
Believe is a major cause of poverty		
	Pre-assessment	Post-assessment
Q3.1 Drug abuse	.88	.85
Q3.2 Medical bills	.67	.70
Q3.3 Part time or low wage jobs	.63	.60
Q3.4 Single parent families	.75	.80
Q3.5 Shortage of jobs	.33	.11
Q3.6 Welfare system	.67	.70
Q3.7 Immigrants	.17	.05
Q3.8 Lack of motivation	.54	.45

Q3.9 Decline in moral values	.54	.50
Q3.10 Poor quality public education	.17	.21

Support

	Pre test	Post test
Q6.1 Increasing minimum wage	.75	.80
Q6.2 Increasing tax credits for low income families	.79	.80
Q6.3 Increasing cash assistance for families	.42	.32
Q6.4 Expanding subsidized daycare	.92	.89
Q6.5 Spending more on medical care for poor	.67	.63
Q6.6 Making food stamps more available for poor	.33	.53
Q6.7 Spending more on housing for poor	.50	.32
Q6.8 Guaranteed minimum income	.58	.53

In the past year, you or someone close to you

	Pre-test	Post-test
Q10.1 Unable to afford child care	.25	.30
Q10.2 Fallen behind on rent or mortgage	.29	.15
Q10.3 Fallen behind on utilities	.33	.45
Q10.4 Unable to pay for transportation to work or school	.08	.10
Q10.5 Unable to get medical care because of financial reasons	.42	.50
Q10.6 Unable to pay credit card bills	.61	.50
Q10.7 Not had enough money for food	.25	.25
Q10.8 Unable to get separated or divorced due to finances	.13	.10
Q10.9 Been a victim of a crime	.33	.20
Q10.10 Had a problem with drug or alcohol abuse	.46	.15