THE NATURE OF BIAS AND ITS IMPACT ON DISPARATE DISCIPLINARY OUTCOMES

by
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Abstract

A critical issue facing America’s schools is the discipline gap. Nationally, Black students comprise 16% of PK-12 students; yet represent 32% of students suspended and 42% of students expelled from school. This disparity also exists in the local context of focus, where Black students account for 76% of students suspended but only 48% of the district population. While an abundance of research highlights contributing factors to this issue, when student characteristics are controlled for, these disparities remain. This indicates a need to look deeper at teacher factors, such as the impact of implicit and explicit biases on teachers’ perceptions and responses to student behavior. Thus, the purpose of this dissertation study was to explore whether participation in online professional development served as an effective approach for reducing teachers’ levels of bias and if so, if these reductions impacted teachers’ perspectives on discipline. Statistical hypothesis testing was used to compare pre and post-test means for control and treatment groups. Additionally, emergent theme qualitative analysis was conducted to illuminate similarities and differences among control and treatment group participants. Results of the intervention were promising. For bias assessments, non-parametric statistical hypothesis tests did not consistently yield significant results, due to sample size limitations. However, the data suggest that differences observed across both the control and treatment groups are quite rich suggesting that an explicit focus on reducing levels of bias in combination with teaching practical classroom management strategies is a viable solution needed to influence disparate discipline outcomes.
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In the personal statement that I submitted with my application to the doctoral program at Johns Hopkins University, I remember starting my essay with a quote by Ralph Waldo Emerson, “Life is a journey not a destination.” That is one of my favorite quotes because it reminds me to be present and focus on what I can learn from life’s experiences. As I reflect on this experience, I realize that I began this journey with a passion to strengthen my knowledge of best practices that would aid me in helping educators to solve some of the field’s most pressing issues. I started this journey with a passion to develop the leadership skills that would position me to be an effective educational consultant helping educators through the difficult work of change. I started this journey because, as much as I had resisted this challenge across the years, I knew it was meant for me. Without a doubt, this has been one of my most difficult and rewarding journey’s to date. I am forever changed because I decided to embrace this journey.

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DEDICATION

In loving memory of my grandparents, Johnnie and Veatrice Feggins, Bobby and Flora Upshaw, and my in-laws, George and Jessie Owens.
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EXECUTIVE SUMMARY

In 1966, researchers at Johns Hopkins University released the seminal report, *Equality of Educational Opportunity*, which explored school segregation and attempted to identify root causes of academic achievement gaps (Coleman et al., 1966). Congress commissioned the study, and it represented an important component of the Civil Rights Movement of the time (Coleman et al., 1966). The report focused on capturing the data needed to ensure *equitable* outcomes, not just *equal* opportunities for all students in the United States. As was the case then, finding ways to meet the needs of all students remains a critical need for educators across the United States. In addition to addressing academic gaps, identifying strategies to address discipline in proactive ways is a primary goal for school systems today. Lasting solutions to these concerns continue to evade educators.

**Problem of Practice**

Schools across the country struggle with proactive school discipline, especially as it relates to discipline disparities between Black and White students. According to national data trends, in the school years from 2012 to 2013, 32% of students suspended out of school identified as Black; although, Black students represent just 16% of students in the United States. Conversely, White students, who account for 51% of the nation’s students, accounted for just 36% of students suspended (U.S. Department of Education [USDOE] Office of Civil Rights, 2014). The U.S. Department of Education Office of Civil Rights (2014) hold schools districts across the nation accountable for addressing these inequities. The theory of disparate influence drives the need for this level of intervention. Specifically, school districts can be placed under corrective action by the
USDOE Office of Civil Rights (2014) to address the disparate discipline outcomes based on race and ability.

Schools’ compliance with addressing these citations is monitored by state-level departments of education. Often times, in response to the requirements to identify strategies to remediate the high rates of exclusionary discipline responses, particularly for Black students compared to their White peers, school systems initiate professional development (PD) opportunities focused on increasing teachers’ levels of proficiency in classroom management through district-wide training on Positive Behavioral Interventions and Supports (PBIS). PBIS represents a proactive approach to discipline (OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports, 2017).

More than 22,000 schools across the United States are implementing PBIS (OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports, 2017). Because of the implementation of PBIS, office discipline referrals (ODRs) and out of school suspensions (OSS) are often reduced. While on the surface, these data seem to warrant celebration, deeper analysis of outcome data indicate that Black students remain twice as likely as White students to be referred to the office and subsequently suspended (Vincent, Randall, Cartledge, Tobin, & Swain-Bradway, 2011). Thus, while researchers have shown PBIS supports schools in reducing rates of office referrals and suspension overall (Vincent et al., 2011), these efforts alone have not closed discipline gaps for Black students.
Clarifying the Problem

Given these data trends, school leaders and educators alike face a critical juncture as they find themselves having to face directly the issue of racial disparities in discipline, if they wish to live up to their core mission of meeting the needs of all students (Vincent et al., 2011). Researchers in the field of education, attempting to describe the causes of the complex issue of disparate discipline outcomes, have identified several possible contributing factors (Vincent et al., 2011). Therefore, Chapter 1 of this dissertation presents a review of the research literature exploring what is known about the factors that contribute to discipline disparities for Black students. The evidence illuminates four major themes that serve as hypotheses about root causes of the problem.

First, researchers have studied the influence that student characteristics, such as poverty and cultural mismatch, have on educational outcomes (Beck & Muschkin, 2012; Coutinho, Oswald, & Best, 2002). Some researchers argued that because Black students might be disproportionality influenced by poverty and demonstrate patterns of behaviors unaligned with the culture of school, poorer educational outcomes result (Skiba et al., 2014; Sullivan, Klingbeil, & Van Norman, 2013; Wallace, Goodkind, Wallace, & Bachman, 2008). Secondly, researchers have explored the degree to which differences in teachers’ expectations, behavior, and instructional practices influence student outcomes (Finn & Servoss, 2013; Skiba et al., 2011). Some researchers suggested that the use of culturally responsive pedagogy and classroom management practices would reduce the current educational disparities seen (Finn & Servoss, 2013; Skiba et al., 2011). Third, the adoption of zero tolerance disciplinary policies by American schools has been posited as a main driver to explain the disproportionate use of exclusionary discipline for Black
students (Skiba et al., 2014). Finally, other scholars suggested that educational disparities were influenced by systemic racial bias, which reflected larger societal problems (Skiba et al., 2014; Sullivan et al., 2013; Wallace et al., 2008).

Given the wide range of factors that may contribute to higher rates of disciplinary incidents for Black students, exploring the saliency of these contributing factors in a practical setting, as identified by the research (Skiba et al., 2014; Sullivan et al., 2013; Wallace et al., 2008), remains essential to understanding the issue more deeply. Hence, in Chapter 2, an empirical needs assessment exploring contributing factors to the issue of disproportionate discipline rates in an urban school district is discussed. Results of the needs assessment indicated that 56% of study participants held implicit biases, although they explicitly reported color-blind, or non-biased explicit attitudes. This finding showed that further research was needed to explore the influence of implicit biases held by teachers to discern if these unconscious biases influence disproportionate discipline outcomes for Black students.

Thus, Chapter 3 of this dissertation presents a literature review focused on current interventions, exploring the nature of attitudes, ways in which biases function, and approaches used to eradicate biases. Additionally, I posited that an effective approach for influencing teacher levels of bias might occur through the mechanism of professional development, as this entailed the process through which schools often engaged in knowledge and skill building in the areas of culture and classroom management. Therefore, a review of current approaches used to build teacher competency in these areas is also discussed.
Purpose of the Study

The purpose of this dissertation study was to explore whether participation in online professional development served as an effective approach for reducing teachers’ levels of bias and if so, if these reductions influenced teachers’ perspectives about discipline practices.

Research Questions

Research questions guiding the study included

1. Is participation in online professional development an effective approach for reducing educators’ levels of bias?

2. How do ratings related to motivation and dissonance change from Pre to Post-test for treatment group participants?

3. Are there differences in perspectives on the discipline of students among control and treatment group participants?

Chapter 4 highlights methodology used for an 8-week online PD course, referred to as the Addressing Biases Courageously (A.B.C.) Intervention. The intervention was designed as a revised approach to professional development and implemented as part of this applied dissertation. The intervention supported teachers in implementing specific strategies aimed at reducing their levels of bias.

Findings

Empirical findings based on intervention data and study implications are presented in Chapter 5. Non-parametric statistical hypothesis tests did not yield consistent significant results across all research questions, largely due to sample size limitations. However, these data showed that differences, observed across both the control and
treatment groups, indicated that important changes occurred between the groups. Reductions in levels of color-blindness approached levels of significance among treatment group participants. Further, using a percentage of change calculation, results of the intervention revealed that participants in the treatment group reduced their levels of implicit bias by 55%, as compared to just a 2.8% reduction among control group participants from pre to posttest. Further, levels of color-blindness were also reduced among the treatment group (12%) and control group (9%) participants.

Another important result of the intervention related to data resulting from participants’ perspectives on discipline. Participants’ responses regarding their philosophies on approaches to discipline changed across pre and posttests. Treatment group participants’ scores indicated a pragmatic orientation about discipline. Control group participants showed a higher percentage change across all areas assessed on the tool used to measure perspectives about discipline.

One of the most significant findings resulting from the data related to differences between control group and treatment group participant’s responses to vignettes of student behavior. When participants were exposed to vignettes, which included a stereotypically Black student name, control group participants perceived the students’ behavior more negatively compared to treatment group participants. These differences disappeared when the vignette included a stereotypically White student name. These data mirrored previous research evidence, which illuminated differential treatment of Black students based on teachers’ perceptions of behavior (Amodio, Harmon-Jones, & Devine, 2003; Phelps et al., 2000). All together, these results showed that an explicit focus on reducing levels of
bias, in combination with teaching practical classroom management strategies, was needed to influence disparate discipline outcomes.

**Conclusion**

Today, more than 50 years since the release of the Coleman et al.’s (1966) report, equitable outcomes for Black students in the United States remains one of the nation’s most elusive goals. The intention of this dissertation was to explore unchartered waters that might highlight why educators have not yet fixed the problem. In 1963, Dr. Martin Luther King, Jr. said in an interview:

> I think it is quite true that if we will have an integrated society it must come by change of heart and through persuasion. While you cannot legislate integration, you can legislate desegregation. There is a difference. (p. 20)

Largely, the policies enacted by U.S. legislators and the practices employed by educators have focused primarily on acts of desegregation or ensuring equal access, but these have failed to address changes of the heart. Until the most recent 2016 presidential election and the heightened awareness of police shootings of unarmed Black men, women, and children, the social acceptability of the expression of prejudiced attitudes and beliefs in the United States had steadily declined, especially since legal sanctions against discrimination were enacted (Bonilla-Silva, 2003). Today, some argued that the racial climate in the nation was as divisive as it was during the time of the aforementioned quote by King (1963). Hence, the lessons learned from the educators who courageously participated in this dissertation study might offer a challenge to educators across the nation to embrace the difficult work of changing hearts. That journey begins with changing attitudes, both conscious and unconscious.
A persistent inequality in U.S. education is the disparity between the educational outcomes of Black students and students with other ethnic or racial backgrounds. Differing outcomes in the use of exclusionary disciplinary practices to address Black students’ behavior in the United States have been well documented in the research literature (Gregory, Skiba, & Noguera, 2010; Skiba, Michael, Nardo, & Peterson, 2002). In this instance, exclusionary discipline refers to disciplinary practices that physically remove students from classroom instruction. Most commonly, these practices include office discipline referrals (ODRs), in-school suspensions (ISS), out-of-school suspensions (OSS), and expulsions (EXP). According to the most recent national data on student discipline practices, during the 2012 to 2013 school year, Black students represented about 16% of PK-12 students in the United States, yet they represented over a third (32% to 42%) of the number of students suspended or expelled (USDOE Office of Civil Rights, 2014). These data strongly suggest that Black students are disproportionally overrepresented in exclusionary disciplinary consequences when compared to their non-Black peers. The cumulative effects of these discipline gaps significantly contribute to the widening academic achievement gap between Black and White students (Andersen & Collins, 2015; Losen, 2015).

Academically, only 18% of the Black fourth grade students assessed performed at or above proficiency levels in both reading and math in 2013 (USDOE Office of Civil Rights, 2014). These outcomes are similar in eighth grade, as 17% of the Black students assessed performed at or above proficiency in reading. The percentage drops to just 14% in math at that grade level (National Center for Education Statistics [NCES], 2013). With
increased accountability for educators resulting from No Child Left Behind (NCLB, 2002) mandates, which require schools to focus on reducing achievement gaps, attention to disparate discipline outcomes between Black and White students is critical. Achievement gaps cannot be closed until disciplinary gaps are resolved. In fact, the inextricable nature of academic achievement and discipline has resulted in reference to these concepts as two sides of the same coin (Gregory et al., 2010).

Theoretical Framework

The theory of disparate impact serves as the theoretical framework for communicating the seriousness of the differing outcomes in discipline for Black students as discussed in this study. Grounded in anti-discrimination law (Civil Rights Act, 1964) and originating in the field of employment discrimination (Griggs v. Duke Power Co., 1971), the theory of disparate impact refers to policies, practices, rules, or other systems that appear neutral at face value, but actually have a disproportionate impact on protected groups. This disparate impact is unintentional and often contrasts with explicitly discriminatory treatment practices.

In 2010, then U.S. Secretary of Education, Arne Duncan and his administration announced that the USDOE Office of Civil Rights (2014) identified districts across the country where exclusionary disciplinary practices disparately influenced students of color (Duncan, 2010). The USDOE Office of Civil Rights (2014) would require such districts to develop corrective action plans to address the practices, policies, and systems that result in unintended outcomes for Black students. Complicating this type of intervention, the United States has a complex history related to race relations, specifically between
Blacks and Whites, which often make discussions about differential outcomes along racial lines taboo (Bonilla-Silva, 2006; Henze, Lucas, & Scott, 1998; King, 1991).

Therefore, investigating the nature of race through theories of racial bias may also be useful in helping to clarify the nature of disparate disciplinary outcomes for Black students. The theory of aversive racism, as conceptualized by Dovidio and Gaertner (2000), defines a state in which people explicitly describe themselves as being non-prejudiced, but they maintain high levels of implicit bias against members of specific out-groups (Hodson, Dovidio, & Gaertner, 2004). These two concepts together serve as the framework for this literature review.

**Statement of the Problem**

The USDOE Office of Civil Rights’ (2014) use of disparate impact theory is an important step in addressing the issue of disproportionality in discipline. The consequences of exclusionary discipline on student outcomes are devastating and cumulative. According to Shollenberger (2015), 1 out of 3 students will be suspended out of school at some point between Kindergarten and 12th grade. These data were based on data taken from the National Longitudinal Survey of Youth 1997 (NLSY97), which contains information from approximately 9,000 students. These disciplinary consequences yield significant loss of instructional time, which can result in lower achievement and correlate positively with likelihood of school dropout and risk of juvenile delinquency (Attendance Works, 2014; Council of State Governments, 2011). The problem, which educators must resolve, is discovering ways in which to ensure that the civil rights and educational needs of Black students are met equitably and require resolution to disproportionate exclusionary disciplinary outcomes for Black students.
This will require a comprehensive understanding of the factors that contribute to the current unequal outcomes in schools across the nation, and potentially an investigation of unconscious and unintentional factors that have largely gone unexplored in the discipline of education.

Review of the Literature

For decades, scholars have identified contributing factors associated with school discipline outcomes (Beck & Muschkin, 2012; Finn & Servoss, 2013; Mendez & Knoff, 2003; Skiba et al., 2011, 2014; Sullivan et al., 2013; Wallace et al., 2008; Wu, Pink, Crain, & Moles, 1982). The research literature yields three broad themes regarding contributing factors: student factors, school factors, and systemic factors. More specifically, researchers have highlighted student factors, as related to gender, socioeconomic status (SES), race, and behavioral characteristics, as significant factors in disciplinary outcomes (Beck & Muschkin, 2012; Finn & Servoss, 2013; Mendez & Knoff, 2003; Skiba et al., 2011, 2014; Sullivan et al., 2013; Wallace et al., 2008; Wu et al., 1982). School factors that seem to influence higher rates of exclusionary discipline practices are related to classroom management strategies, school climate, and staff attitudes regarding discipline (Mattison & Aber, 2007; Skiba et al., 2002, 2014; Simpson & Erickson, 1983; Vavrus & Cole, 2002). Moreover, evidence of more systematic racial bias, specifically racial threat and the effects of implicit and unconscious bias, may be an important contributing factor related to discipline outcomes for Black students, which further supports the theoretical framework of disparate impact (Devine & Forscher, 2012; Fazio & Dunton, 1997; Greenwald & Nosek, 2008; Rocha & Hawes, 2009; Welch &
Payne, 2010). This literature review will explore what is known about each of these contributing factors according to the research base.

**Student Characteristics**

The research base provides comprehensive data regarding several student-level variables that may contribute to increased risk of exclusionary discipline. More specifically, factors studied extensively included student characteristics of gender, poverty, behavior, and race. Each of these variables is discussed in detail below.

**Gender.** Differences in rates of suspensions for male and female students have been documented across many decades. In their analysis of data of more than 30,000 students obtained as a part of the Safe School Study mandated by congress in 1976, Wu et al. (1982) found that, after controlling for numerous student-level characteristics, male students were more likely to be suspended from school than female students. Similarly, using data from a large school district in Florida, Raffalle, Mendez and Knoff (2003) analyzed district-level data of 142 schools collected during the 1996 to 1997 school year. Their findings revealed that male students were more than twice as likely as females to receive an out of school suspension, and these trends persisted across grade levels.

Most recently, a report from the Civil Rights Project (CRP) at UCLA (Losen, Hodson, Keith, Morrison, & Belway, 2015) highlighted significant differences in gender by grade level. Seven percent of male elementary school students were suspended from school compared to just 2% of female students. At the secondary level, these rates increased to 21% for male students and 12% for female students. These results suggest that behaviors exhibited by male students garner increased attention from educators.
Researchers are exploring factors that contribute to teachers’ perceptions of student behavior.

Evidence suggests that the externalizing nature of male student behavior and the lack of affective teacher relationships are factors positively correlated with negative perceptions of student behavior (Lei, Cui, & Chiu, 2016). Therefore, exploration of teachers’ perceptions of behavior based on stereotypical gender expectations may be an important next step for researchers to explore. Additionally, as the number of students who openly express their identity as trans-gendered or bi-gendered increases, researchers will need to explore the ways in which traditional gender expressions influence educators’ perceptions of behavior.

**Poverty.** Existing research indicates that students who come from low-income families are suspended more frequently than students who are of higher socioeconomic status (Beck & Muschkin, 2012; Coutinho et al., 2002). However, numerous researchers consistently found that even after controlling for student income levels, quantified by free, reduced, and paid lunch status, Black students remained at a higher risk compared to other ethnic groups for being suspended from school (Skiba et al., 2014; Sullivan et al., 2013; Wallace et al., 2008). This evidence suggests that although socioeconomic status can increase one’s risk for disciplinary consequences, perceptions of the behaviors exhibited by Black students who are poor are seen as more significant than the behaviors of students of other races that live in poverty.

**Behavior.** For educators and non-educators alike, hypotheses regarding the contributing factors of school discipline must address the behaviors manifested by the students themselves. A logical hypothesis is that differential rates of office discipline
referral (ODR) and resulting suspensions are because Black students commit disciplinary infractions more frequently or engage in behaviors that are more severe compared to students from other ethnic groups. In a national study of high school students, Wallace et al. (2008) compared rates of suspension for students with similar rates of ODRs. Results indicated that, despite similar frequency in rates of misbehavior resulting in referrals to the office, Black students were more likely than White students to report receiving an out of school suspension (Wallace et al., 2008). Further, researchers analyzed data across elementary, middle, and high school levels and found that Black students have a higher risk for being suspended and excluded from the classroom settings, even if they committed the same level of infraction as a White student (Finn & Servoss, 2013; Skiba et al., 2011). These studies showed that disproportionality in exclusionary discipline cannot be explained fully by the nature of behavioral infractions alone (Finn & Servoss, 2013; Skiba et al., 2011; Wallace et al., 2008).

**Race.** Finally, across all of the aforementioned studies of student characteristics, the research clearly indicates that Black students are most at risk for exclusionary discipline. Researchers consistently yielded results that indicated that Black students were more than twice as likely to be referred to the office and suspended as any other racial group (Finn & Servoss, 2013; Skiba et al., 2011, 2014; Wallace et al., 2008; Wu et al., 1982). The most recent data, as reported by the CRP, indicate that 16% of Black K-12 students were suspended in the school year from 2011 to 2012, compared to just 5% of White students in the same year (Losen et al., 2015). As previously highlighted, even when controlling for gender, poverty, and type of behavioral infraction, race remains a significant predictor of disparate disciplinary outcomes. This supports the need to explore
educators’ beliefs related to student race more thoroughly to determine if factors related to educators’ attitudes about race influencing their decisions about student discipline.

School Factors

Given that student-level characteristics, such as gender, SES, and race, cannot be changed, educational researchers have also explored school factors that may provide insight on the disparate discipline rates of Black students. Specifically, studies related to teacher’s classroom management practices, differences in teacher’s interpretation of behavior, and factors associated with overall school climate have yielded important findings related to discipline disparities (Skiba et al., 2002; Simpson & Erickson, 1983; Vavrus & Cole, 2002). Highlights of the research literature are discussed below.

Classroom practices. Differences in interpretations of behavior seem to be important to understanding classroom variables that influence discipline outcomes for Black students. Skiba et al. (2002) analyzed office discipline referrals of secondary students in a Midwestern state by race. They found eight statistically significant differences in the reasons Black and White students were sent to the office. The nature of these variations was described as differences in subjective and objective behaviors. Specifically, Black students were sent to the office more frequently for violations related to disrespect, loitering, threat, and loud noises, whereas White students were sent to the office more often for behaviors related to leaving without permission, profanity, vandalism, and smoking. Similarly, Vavrus and Cole (2002) analyzed video recorded observations of middle school science classes and found the reasons for which students were sent to the office were related to differing behavioral patterns among Black students and the classroom expectations of the teacher. For example, Vavrus and Cole (2002)
noted that Black students were not always disciplined for their specific misbehavior alone. Rather, analysis of classroom video recordings indicated that office discipline referrals are often the result of complex sequences of events that together form a disciplinary moment singled out by a teacher. This can be thought of as the teacher’s breaking point. The authors suggested that the behaviors of Black students were often singled out at the breaking point unconsciously because of the cumulative acts of disruption that might take place within the classroom environment. The researchers note that no single event results in students being sent out of the classroom. Rather, it is the teachers’ unconscious discomfort with sociocultural factors that exist in the classroom environment that disproportionality impact students of color.

Further, Simpson and Erickson (1983) conducted a study focused on the verbal and nonverbal communication patterns of 18 first-grade teachers who were classified as either Black or White. Results indicated that White teachers provided more verbal and nonverbal communication of all types to male students compared to female students, regardless of race. White teachers also directed more verbal criticism toward Black males. Black teachers, according to the data, provided more verbally neutral statements together with nonverbal praise toward female students of both races. These patterns held true even after controlling for socioeconomic levels of students. These results, together, suggest that the subliminal and unconscious behaviors of teachers that occur in the classroom are culturally mediated and relevant. Thus, explorations of both intentional and unintentional teacher behavior may be worthwhile to illuminate differences in discipline practices more fully.
**School climate and attitudes about discipline.** School climate is also an important factor related to discipline. School climate refers to the quality interpersonal interactions among actors within the school environment, namely, staff, students, and parents. (Haynes, Emmons, & Ben-Avie, 1997). Mattison and Aber (2007) administered the Racial Climate Survey, an assessment tool used to measure high school students’ perceptions of a school’s racial climate, to more than 2,200 high school students. In the context of school, racial climate refers to the ways in which race and perceptions of race influence broader aspects of a school’s climate. Using students’ responses to the survey, Mattison and Aber (2007) explored the relationship between the students’ self-reports of their school’s racial climate and discipline outcomes. They found that positive perceptions of the racial climate were associated with higher student achievement and fewer discipline problems, while differences in academic and discipline outcomes were associated with differences in perceptions of racial climate.

Similarly, Gregory, Cornell, and Fan (2011) administered, collected, and analyzed data from school climate surveys completed by 5,035 ninth grade students. Their analyses indicated that schools that students rated the lowest on measures of school climate had the highest rates of suspension. Finally, administrators’ attitudes about discipline have also been found to be an important aspect of school climate. Schools, in which administrators held more prevention-focused attitudes regarding discipline, as measured by the Disciplinary Practices Survey (DPS), had lower rates of suspension (Skiba et al., 2014). These data suggest that the orientation and role the administrative leadership within a school is a critical component needed for influence school climate and the use of proactive discipline strategies.
Systemic Factors

**School racial composition.** While important, the student and school factors highlighted in the literature review thus far, fail to explain the disparate disciplinary outcomes completely for Black students. When these factors are controlled for using statistical analyses, Black students are disciplined more frequently and severely compared to their White peers (Skiba et al., 2014; Sullivan et al., 2013; Wallace et al., 2008). This indicates that race, and not SES, remains a more significant factor in disparate outcomes.

Unsurprisingly, data collected across several studies indicate that, as the percentage of the number of Black students enrolled increases, so does the use of more exclusionary disciplinary practices (Rocha & Hawes, 2009; Welch & Payne, 2010). Since prior research has indicated that Black students do not actually engage in more troublesome behaviors that warrant harsher punishment than their nonminority peers, researchers have explored the notion of racial threat as a hypothesis regarding school discipline (Rocha & Hawes, 2009; Welch & Payne, 2010). Racial threat theory posits that various forms of social control increase as the proportion of Blacks increase in a population (Welch & Payne, 2010). In this sense, racial threat can be described as an aspect of systemic and longstanding historical racial bias against Black students.

Using a national data set to conduct multivariate analyses, Welch and Payne (2010) found that a school’s racial composition, specifically schools with a greater percentage of Black students, was the strongest predictor for the use of punitive discipline. Further, racial composition was shown as positively related to the implementation of zero tolerance policies and negatively related to the use of milder,
restorative forms of discipline. A recent study by Skiba et al. (2014) yielded similar findings. Using an extant database, the researchers analyzed data from the 2007 to 2008 school year, which consisted of records of all incidents of suspension and expulsion that occurred in 730 schools in a Midwestern state. Furthermore, 104,445 incidents involving 43,320 students were analyzed. Results of the multilevel modeling analysis indicated that more severe disciplinary consequences increased as the severity of the behavioral infraction increased.

However, race remained a significant predictor of OSS, despite the severity of the behavior (Skiba et al., 2014). Further, results indicated that the student characteristics of race (i.e., Black) and gender (i.e., male) were significant predictors of OSS. Students’ income level (as measured by free and reduced lunch) was an inconsistent predictor of OSS. The school-level factors of principal attitudes on alternatives to suspensions, overall school achievement, and percentage of Black students enrolled were all positively associated with OSS. The authors stated that the most striking finding in their analysis was that attending a school with a high percentage of Black students increased the odds of receiving an OSS, even when controlling for student demographics and behavior (Skiba et al., 2014). The findings of these studies confirm the need to look more deeply at systemic factors of bias and the role that these concepts play in maintaining disciplinary and academic disparities for Black students (Rocha & Hawes, 2009; Skiba et al., 2014; Welch & Payne, 2010).

**Implicit bias.** The results of aforementioned studies are important to consider (Rocha & Hawes, 2009; Skiba et al., 2014; Welch & Payne, 2010). If schools with higher percentages of Black students adopt more punitive discipline policies, an important
research question would be to understand the ways in which implicit biases may be influencing these trends. A robust body of researchers studied the nature of implicit bias and ways in which these biases were triggered (Devine & Forscher, 2012; Fazio & Dunton, 1997; Greenwald & Nosek, 2008). An implicit bias is defined as a positive or negative attitude or association that a person holds toward a person, group, or object at an unconscious level (Greenwald, McGhee, & Schwartz, 1998). These are often referred to synonymously as unconscious biases.

To explore the role that implicit bias plays in an educational context, van Den Bergh et al. (2010) collected data on the explicit and implicit attitudes of teachers regarding students of Dutch origin compared to their ethnic minority peers. Specifically, data from 41 Dutch teachers across 17 elementary schools located in the Netherlands was collected. Collectively, these teachers taught 434 first to sixth grade students from Dutch, Turkish, and Moroccan ethnic backgrounds, which served as the data set for the study. Analysis of the data indicated that teachers’ reported expectations about students’ level of achievement and the size of the achievement gaps were related to the levels of implicit prejudiced attitudes of the teachers. Achievement gaps were larger in the classrooms of teachers with more prejudiced implicit attitudes. Although Bergh et al. (2010) looked specifically at academic outcomes associated with levels of explicit and implicit bias, since the results showed that bias was a significant factor in these academic outcomes, an investigation to explore if these data patterns were meaningful in explaining discipline gaps remained necessary.

More recently, Okonofua and Eberhardt (2015) completed a study, which investigated the influence of student race on teachers’ responses to minor disciplinary
infractions (i.e., insubordination and classroom disruption). They designed case scenarios of students who committed minor infractions and then asked teachers to rate the degree to which they were troubled by the students’ behavior and to what degree they believed the student should be punished. Their results indicated that teachers viewed the same infractions as more problematic and warranting more severe consequences when a Black student committed the infraction compared to a White student. Okonofua and Eberhardt (2015) were one of the first to indicate a causal link between student race, teacher responses, and disciplinary outcomes. While this information offers new insights into potential causes of disparate discipline outcomes for Black students, a need to observe this pattern using actual versus experimental data remains.

To date, the research literature is sparse in its investigation of the role of implicit bias on disciplinary outcomes for Black students. The influence of a teacher’s implicitly held biases may illuminate additional factors to explore in school’s attempts to address discipline disparities. Therefore, additional research in these areas is greatly needed and would offer significant contributions to the research literature.

**Conclusion**

To conclude, for decades, Black students have consistently been overrepresented in exclusionary discipline practices when compared to their peers. As a result, Black students who are suspended from school are at higher risk of academic underachievement, dropout, and juvenile delinquency (Shollenberger, 2015). In addition, Alexander (2012) described the devastating influence of the use of zero tolerance policies on students as a significant civil rights issue. The disproportionate use of exclusionary discipline for Black students contributes to the school-to-prison pipeline, whereby the
exclusion of students in school increases their risk of engagement with the criminal justice system (Alexander, 2012; Skiba et al., 2014). Schools have largely begun to criminalize student behavior instead of providing the supports students may need for behavior change. These practices sustain social inequalities that impact Black and other marginalized people. If educators want to address these ills in society, they must take a hard look at the ways in which their current practices disproportionality impact students of color.

The contributions of both student- and school-level factors have been explored extensively in the research literature, yet existing studies do not fully explain the differences in disciplinary outcomes between Black and White students (Okonofua & Eberhardt, 2015; Skiba, 2002). Rather, there is evidence suggesting the need to explore systemic and unintentional factors, namely the influence of teacher bias, and ways in which these factors may contribute to disparate outcomes for Black students. Thus, an exploration of how these trends manifest in a particular school district is described in Chapter 2.
CHAPTER 2. NEEDS ASSESSMENT

The national trends, related to the disparities in disciplinary outcomes for Black students, also exist in Central School District. For privacy reasons, the pseudonym Central School District replaced the actual name of the school district. Moreover, the local context of study, Central School District (CSD), is located in a Midwestern State and serves approximately 12,000 students, 71% of whom are eligible for free and/or reduced lunch. Demographically, 48% of students’ enrolled in CSD identified as Black, 33% as White, 11% as Hispanic, 7% as Multiracial, and 1% as Asian. While Black students accounted for just 48% of the total student population in the district, they made up 70% of students referred to the office and 76% of the students suspended from school (Table 1).

Table 1

*Enrollment, Office Discipline Referrals (ODRs), and Out of School Suspensions (OSS)*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>% of Enrollment</th>
<th>% ODR</th>
<th>% OSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>48.4%</td>
<td>70.5%</td>
<td>76.4%</td>
</tr>
<tr>
<td>White</td>
<td>33.3%</td>
<td>14.7%</td>
<td>21.7%</td>
</tr>
</tbody>
</table>

As a majority minority school district, the district served as a rich context to study the nature of discipline disparities. This fact was the case given the diversity among students who shared racial identification but might differ in levels of socioeconomic status, family composition, and academic achievement. This fact was important given the tendency of educators to attribute increased rates of discipline issues to issues of socioeconomic status and not race. Additionally, the demographics of CSD’s teaching staff aligned with national trends, as 86% of CSD’s certified staff identified as White and
just 11.5% as Black (USDOE Office of Civil Rights, 2014). This fact allowed for exploration of trends related to cultural mismatch that might impact discipline outcomes.

**Goals and Objectives**

Given the consequences of disciplinary disparities and attempts to identify long-term solutions to the problem of disproportionality in school disciplinary practices, the purpose of this needs assessment was to explore the most salient factors that contribute to the problem of disproportionality. Four essential constructs were explored, as articulated in the following Needs Assessment questions:

1. Are Black students more likely to receive disciplinary infractions (ODRs) compared to White students?
2. What are educators’ perceptions of disciplinary practices?
3. What are educator’s self-reported racial attitudes?
4. What are educator’s levels of implicit bias regarding Blacks?

**Participants and Setting**

Extant data obtained across numerous national studies on the context of disproportionality in school discipline indicate that rates of office discipline referrals (ODRs) and out of school suspensions (OSS) are highest at the middle school level (Losen & Martinez, 2013). Given that, the setting and target group to investigate the aforementioned research questions focused on Black and White students in Grades 7 and 8 and the teachers and administrators who educate them in the CSD. Classroom teachers and administrators from each of CSD’s three middle schools were invited to participate in the study. Participants were invited to participate in this study by email (see Appendix A)
and asked complete an informed consent form (see Appendix B). As an incentive to participate, I offered a $20 VISA gift card to all participants.

**Instrumentation and Measures**

Variables of focus for the needs assessment included rates of exclusionary disciplinary practices, as measured by ODRs for Black and White students, student characteristics (i.e., race, gender, income level), teacher characteristics (i.e., race, number of years in education, number of referrals written, philosophies about disciplinary practices), and assessment of biases (i.e., explicit and implicit biases). Each of these variables is discussed in more detail in the sections below.

**Discipline Rates**

Discipline trends in CSD were is the rate of exclusionary disciplinary practices as measured by Office Discipline Referrals (ODRs). Use of ODRs is the most common approach for capturing rates of disciplinary infractions and is considered a valid measure (Losen et al., 2015). An ODR is operationalized as an official referral to the office for a major disciplinary infraction, which is documented on an official district referral forms and entered into the district data system. Data from the district-wide data system indicate the number of unique students (unduplicated) referred to the office at least one time. Only students who received a referral to the office are included in this database (see Appendix C). Data obtained from numbers were compared to student enrollment to calculate rates of disproportionality.

**Student Characteristics**

Student factors related to gender, socioeconomic status, race, and behavioral characteristics have been highlighted as significant factors in disciplinary outcomes
Again, CSD’s existing data system includes information about each student’s race, gender, and socioeconomic status. As mentioned in Chapter 2, a student’s socioeconomic status is most often measured by their participation the National School Lunch Program. Students who live in a household with an income at or below 130% of the poverty income threshold are eligible for free lunch. In addition, those students whose household income falls between 130% and up to 185% of the poverty threshold are eligible for reduced price lunch. Students are categorized as paid lunch status if their household income falls at or above 186% of the poverty threshold (U.S. Department of Agriculture, 2016).

In addition to student characteristics mentioned above, data regarding types of behavioral errors made by students were also collected from CSD’s data system. In a discipline context, student behavior is defined as disruptive behaviors committed by a student warranting an official ODR. Data from district wide data system, indicating the type of behavior infraction (e.g., fighting, defiance, and insubordination) committed by a student resulting in an office referral, were collected for each of the three schools of focus. These data were used to analyze Needs Assessment Question 1.

**Teacher Characteristics**

Certified teachers, as well as administrators, were invited to participate in the needs assessment. Each participant responded to six demographic questions that were collected proactively to clarify differences observed in data analysis (see Appendix D). Additionally, educators’ attitudes about discipline in their school were assessed using a modified version of the Disciplinary Practices Survey (DPS), developed by Skiba et al.
(2014). The DPS is a 42-item survey instrument designed to provide data on a broad range of disciplinary perspectives, attitudes, and practices.

Participants indicate their opinions related to these questions, using a 5-point Likert scale (1, *Strongly Disagree* to 5, *Strongly Agree*). Items were developed through pilot testing of five prior surveys of educators’ perspectives on discipline. The DPS has been used in prior research, mainly with principals (Skiba et al., 2003, 2014) and has a reliability coefficient of .67, which is deemed adequate for research purposes. For the purposes of this needs assessment, questions specifically addressing the needs and behaviors of special education students were removed given this study’s focus on both general education and special education students, yielding 34 remaining questions (see Appendix E).

These 34 questions provided three specific factors that related to educators’ attitudes about discipline. These attitudes included a philosophy of proactive discipline, a philosophy of reactionary discipline, and a philosophy of pragmatism, all of which represented constructs identified in the original version of the survey. Beliefs aligned with proactive discipline suggest that educators subscribe the belief that the primary purpose of discipline is to teach appropriate behavior skills. Those with this philosophy have a primary focus on keeping students in school. Those whose responses indicate a philosophy of reactionary discipline characteristically believe a positive school climate relies heavily on order. Those with this orientation often subscribe to the belief that removing students who engage in the most problematic behavior can improve overall school climate. Finally, responses aligned with a philosophy of pragmatism see the need for a range of interventions to support students with behavioral challenges. However,
they also subscribe to the belief that suspension is often needed if students are not willing to make responsible choices.

**Self-Reported Racial Attitudes**

There is research evidence to support the assertion that teacher treat students differentially based on their race or ethnicity (Skiba et al., 2002). However, some teachers report subscribing to attitudes that minimize their observations of a student’s race or ethnicity, suggesting that they do not attend to these differences and that a student’s race is not important in discipline decisions (Atwater, 2007; Skiba et al., 2002). This is often referred to as color-blindness.

Neville, Lilly, Duran, Lee, and Browne (2000) developed a scale to measure the degree to which people manifest color-blind racial attitudes (see Appendix F). Neville et al. (2000) defined color-blindness as the belief that racial differences were unimportant and did not influence one’s experiences in society. The Color-Blind Racial Attitudes Scale (CoBRAS) is a 20-item instrument where participants respond using a 5-point scale ranging from (1) *Strongly Disagree* to (5) *Strongly Agree*. A higher total score on the CoBRAS reflects a higher level of colorblindness. The CoBRAS captures one’s beliefs based on the three following scales:

1. Unawareness of Racial Privilege
2. Unawareness of Institutional Discrimination
3. Unawareness to Blatant Racial Issues

The Unawareness of Racial Privilege scale refers to one’s blindness to the existence of White privilege in society. The second scale, Unawareness of Institutional Discrimination, captures the depth of one’s understanding about institutional forms of
racial discrimination and access. Finally, the Unawareness of Blatant Racial Issues scale measures one’s level of awareness of pervasive and covert racial discrimination experienced by members of society according to their race. Neville et al. (2000) reported internal consistency coefficients of .86 to .91. Additionally, Neville et al. (2000) found evidence of construct validity of .68, as the CoBRAS was positively correlated with other measures of racial attitudes. To explore color-blind attitudes as a contributing factor to discipline outcomes, each participant was administered the CoBRAS.

**Implicit Bias**

Much is known about the power of implicit bias and the influence that these biases can have on decision-making (Devine & Forscher, 2012; Fazio & Dunton, 1997; Greenwald & Nosek, 2008). Further, numerous studies have shown that differential treatment and attitudes existed about students who manifested similar behaviors but were of different races (Casteel, 1998; Emihovich, 1983; Finn & Servoss, 2013; Wallace et al., 2008), which could derive from implicit or unconscious biases.

Researchers worked to find ways to measure attitudes that were unconscious effectively (Devine, Forscher, Austin, & Cox, 2012; Fazio & Dunton, 1997; Greenwald & Nosek, 2008). One of the commonly used tools for quantifying implicit biases associated with race is the, Implicit Associations Test (IAT). The IAT, developed by Greenwald et al. (1998), has been shown as a valid measure of implicit processes. The IAT works by measuring participant’s associations of presented stimuli. As part of the IAT, participants are presented with a set of words or images and asked to classify these stimuli into groups. This task requires participants to categorize these items quickly while making as few mistakes as possible. The original test measured one’s implicit biases.
related to race, specifically associations related to people who are Black or White. On the Black-White version of the IAT, participants are presented with pictures of Black and White faces and pleasant and unpleasant words. The task requires participants to categorize each word or picture presented. For example, the participant may be asked to place all photos of White faces and words with pleasant meanings in a category and all photos of Black faces and unpleasant words into another category. An example of the type of prompt participants see is captured in Figure 1.

![Figure 1. Screenshot of stimuli presented on IAT assessment.](image)

Data collected from participants’ responses to the presented stimuli are analyzed by examining the difference in response latencies in milliseconds and error rates. As a result, a difference (D) score is obtained and serves as a quantifiable measure of
participant’s levels of implicit bias regarding Blacks and Whites. While there are now many versions of the IAT, measuring a wide range of topics, each is based on this design. The IAT has been used extensively for research since its initial development in 1998 (Greenwald et al., 1998) and has shown to have sufficient internal consistency and test-retest reliability. Internal consistency coefficients for IAT measures are usually above .80, and test-retest correlations have ranged from .31 to .69, with the average reliability coefficient being .55 (Banse, Seise, & Zerbes, 2001; Bosson, Swann, & Pennebaker, 2000; Dasgupta & Nosek, 2001). To begin to explore the nature of implicit bias and its potential influence on discipline outcomes, all participants were administered the Implicit Association Test (see Appendix G).

**Data Collection and Analysis**

In alignment with the variable defined in the previous section, data collected for the needs assessment was quantitative. All independent variable data were collected electronically through the design of a dedicated website for the needs assessment study. The website was developed so that participants could respond to all three tasks (i.e., DPS, CoBRAS, and IAT) in one location and in one session. For added protection and confidentiality, all participants were assigned a six-digit participant number so that no identifying information was collected during the tasks associated with the study.

**Operationalizing Student Characteristics**

The student variables used in the operationalization of this construct are already routinely collected as a part of the CSD’s current practice. District administrators provided me with an Excel file, which included all students who received an ODR, the type of behavior infraction the students committed, and the type of consequence they
received. In some cases, a unique student might have been referred to the office on multiple occasions; however, for the purposes of this need assessment, analyses were completed based on unduplicated student counts. This is important so that data analyses related to rates of disproportionality were not elevated due to the repeated misbehavior of a student of a particular race. Using unduplicated student counts allowed direct comparisons of the percentage of students enrolled in CSD and the percentage of students of receiving an ODR by race.

**Self-Reported Perspectives**

Using a 5-point Likert scale, participants provided their responses to the questions on the DPS and CoBRAS (see Appendix H). Their responses yielded a total score for each of the associated scales on the surveys. A total score for each of the measures was calculated for each individual participant.

**Measuring Implicit Bias**

IAT scores were calculated using the Difference (D) scoring algorithm as defined by Greenwald, Nosek, and Banaji (2003). As previously mentioned, D scores were based on the differences in participants’ response times to the various prompts in the IAT, and D indicates how long it takes participants to sort stereotype-congruent stimuli and the time it takes to sort stereotype-incongruent stimuli into the same category. Higher D scores indicate a higher non-conscious or implicit racial bias. Again, each individual participant had a D score associated with the results of their responses. This supported exploration of the relationships between educator’s levels of implicit bias and additional data collected as part of the needs assessment.
Needs Assessment Findings

A total of 16 educators participated in the needs assessment study. Of those, two participants identified themselves as Black, while the other 14 identified themselves as White. Statistical tests were completed and statistical means were calculated to capture the significance of difference and patterns and variance associated with each of the variables of interest. More specifically, for discipline data, z-tests were used because the sample size of students included in the discipline file were large (n = 3824) and the data set was skewed, given that the data set focused on all students who received at least one office referral. No data regarding students never receiving an ODR were included. Statistical means were calculated related to the data collected because of educators’ responses to the DPS, CoBRAS, and IAT.

Needs Assessment Question 1

The question stated, are Black students more likely to receive disciplinary infractions (ODRs) as compared to White students? For Needs Assessment Question 1, the null hypothesis posited that there is no difference in rates of ODRs for Black and White students. Data analysis indicated that the null hypothesis was rejected, as the proportion of Black students referred was higher than for White students across all three middle schools (School 1, z = 4.8, p = .0; School 2, z = 14.3, p = .0, School 3, z = 5.6, p = .0). It should be noted that these results were true even after controlling for socioeconomic level across the three schools (z = 4.1, p = .0).

Needs Assessment Question 2

The second question stated, what are educators’ perceptions of disciplinary practices? Data analysis of participants’ perspectives on disciplinary practices as
measured by the DPS revealed that educators reported support for preventative, reactionary, and pragmatic approaches to discipline. More specifically, all respondents were at least 50% in agreement with the philosophy of supporting the use of each of these approaches. This suggests that the participants' perceptions of disciplinary practices are not aligned with a specific orientation, rather, decisions regarding the use of suspensions may be related to nuisances in student behavior. Additional information would be needed to understand the relationship more clearly between educator’s beliefs about disciplinary practices and student outcomes.

**Needs Assessment Question 3**

The third questions stated, what are educator’s self-reported racial attitudes? Related to self-reported attitudes about the influence of race, as measured by the CoBRAS, 93% (n = 15) of the participants responded to questions that indicated an unawareness of racial privilege. This suggests that the majority of the educators participating in the needs assessment subscribed to color-blind philosophies regarding the influence of race. Only one respondent provided responses indicating high levels of awareness of racial privilege. These results indicate that educators’ in CSD may be minimizing the influence of race on the experiences of students and may not be aware of the ways in which students’ cultural orientations may influence their behavior and more critically, educators’ interpretations of the behavior.

**Needs Assessment Question 4**

The fourth question stated, what are educator’s levels of implicit bias toward Blacks? Finally, data analysis of IAT results indicated that 56% (n = 9) of respondents demonstrated some preference for Whites, 25% (n = 4) demonstrated no preference, and
just 19% \((n = 3)\) of respondents demonstrated a preference for Blacks. It should be noted that the two participants who self-identified as Black showed a preference for Blacks. These data support the need to look more deeply at the influence of implicit biases on educators’ responses to discipline incidents. To accomplish this, additional research would be needed explicitly connecting levels of bias to educators’ responses to behavioral incidents.

**Discussion**

The results of the needs assessment conducted in CSD support the need to investigate, in more detail, factors related to unconscious bias and the role that this concept may play in maintaining disciplinary disparities. These data collected indicate that all but one of the study participants subscribed to color-blind attitudes about race. This suggests that they are unaware of or do not believe that race has an influence on outcomes. This is a common trend among educators who often assert that they do not see color, and they just see kids. The intention of educators who make these types of statements is focused on treating all students, regardless of race, equally. However, the data collected indicate that despite their perceived minimization of race, they actually hold unconscious, implicit biases that may in fact be negatively influencing their behavior toward students of color.

The differential outcomes in disciplinary practices for Black students suggest that understanding the nature of conscious and unconscious attitudes is essential. To that end, investigating the nature of disparate outcomes through theories of racial bias might prove useful in helping to clarify the nature of disproportionate disciplinary outcomes for Black students and subsequently provide a foundation for the development of successful
intervention strategies. School systems’ leadership are being asked to develop these strategies, as they are being held accountability for disparities in discipline by the USDOE Office of Civil Rights (2014), OCR, and State Departments of Education.

Decades of research have validated the existence of color-blind attitudes among educators (Atwater, 2007; Larson & Ovando, 2001; Lewis, 2001; Schofield, 1982). This concept in an educational context refers to the belief that race does not serve as a factor in the differential treatment of students and that differentiated strategies for students of varying ethnic backgrounds are not needed. Yet, disparate outcomes among students of differing ethnicities who share similar characteristics persist. Further, the theory of aversive racism, as conceptualized by Dovidio and Gaertner (2000), is defined as a state in which people explicitly describe themselves as being non-prejudiced but maintain high levels of implicit bias for members of specific out-groups (Hodson et al., 2004). It seems plausible that educators who see themselves as non-biased and color-blind may in fact have unconscious biases that impact their work with students. The results of the needs assessment conducted in CSD also support this position.

Given the United States’ turbulent history of race relations, this task will no doubt be challenging. However, focusing on changing the practices of educators without addressing the explicit and implicit biases that they hold might prove fruitless. Might the lack of attention to these factors be the reason that long-term solutions to the achievement gap have evaded educators to date? Chapter 3 will focus on highlighting current approaches used in professional development for educators regarding developing their competencies in the area of culture and exploring what can be learned from the existing
research base about the effective remediation of biases that would support the resolution of disparate disciplinary outcomes for Black students.
CHAPTER 3. INTERVENTION LITERATURE REVIEW

The Addressing Biases Courageously (A.B.C.) Intervention

The focus of the review of literature addressed in this chapter is twofold. First, it is important to describe current approaches used to support the development of cultural competency among America’s educators. Second, an exploration of the empirical evidence related to implicit bias that can be applied to the understanding of discipline outcomes in an educational context is needed. These components together serve as the foundation for the development of an effective professional development intervention focused on reducing teacher’s levels of bias.

There is sufficient evidence of the need for educators to possess competencies to support the learning and behavioral needs of culturally diverse students effectively (Cross, 1988; Gay, 2000; Ladson-Billings, 1995). In the context of education, these skills are commonly referred to as cultural competence and refer to an educator’s ability to think, feel, and act in ways that acknowledge, respect, and build on the ethnic, cultural, and linguistic diversity of students (Lindsey, Robins, & Terrell, 2003; Lynch & Hanson, 1998). Manifestation of these skills is seen in instructional practice, behavioral management, in student-teacher relationships, and in the classroom climate itself.

Proficient skills in cultural competence require educators to consider the cultural lenses, or perspectives, they use to interpret and evaluate intercultural experiences. Lindsey et al. (2003) referred to this change, as a developmental process that required educators to shift from viewing cultural differences as problematic to seeing student differences as a source of value and responding to these differences positively and affirmingly. The focus on ensuring educators possess the skills to work effectively with
culturally and linguistically diverse students has become a priority given the shifts in racial, ethnic, and linguistic demographics in schools (NCES, 2010) and educational policies that require disaggregation of student data by subgroup (NCLB, 2001). These drivers have prompted educational leaders to focus on Professional Development (PD) focused on strengthening levels of cultural competency among educators.

Given that PD is a primary process for the development of teacher’ knowledge and skills (Desimone, 2011; Desimone, Porter, Garet, Yoon, & Birman, 2002), understanding the components of effective PD programs is important. Results from a survey of teacher’s experiences with PD programs indicated five common features of PD activities that were effective in enhancing teacher’s knowledge, skills, and classroom practices (Desimone et al., 2002). These essential features included

1. focused content that connected the subject matter to student learning outcomes;
2. active learning structures which allowed teachers to be active participants in the PD;
3. coherence, or connections with teachers’ existing knowledge, skills, and beliefs;
4. ongoing PD experiences that were spread out over time; and
5. collective participation, or the ability to engage in PD with other teacher colleagues.

With these principles in mind, considering best practices in PD opportunities focused on culture is important.
Models of Cultural Diversity Professional Development

Professional development designed to support teachers in effectively addressing the multifaceted components of academic and socio-emotional learning from a cultural perspective can be challenging. To support effective program design, five essential principles for PD focused on multicultural teaching and learning have been identified in the research literature (Banks, 2001; Banks et al., 2001). Banks et al. (2001) suggested that effective PD programs focused on culture should help educators:

1. Uncover and identify their personal attitudes toward racial, ethnic, language, and cultural groups;

2. Acquire knowledge about the histories and cultures of the diverse racial, ethnic, cultural, and language groups within the nation and within their schools;

3. Become acquainted with the diverse perspectives that exist within different ethnic and cultural communities;

4. Understand the ways in which institutionalized knowledge within schools, universities, and the popular culture can perpetuate stereotypes about racial and ethnic groups; and

5. Acquire the knowledge and skills needed to develop and implement an equity pedagogy. (p. 197)

Reviews of current approaches to PD focused on culture highlight the use of two common paradigms: (a) cultural knowledge training and (b) color-conscious training (Banks, 2009; Cooney & Akintunde, 1999; Ullucci & Battey, 2011). By far, the use of cultural knowledge trainings has saturated PD experiences offered within the K-12
setting (Melnick & Zeichner, 1998). Cultural knowledge training supports the development of educators’ awareness and knowledge of cultural beliefs and patterns of behavior (Banks, 1994; Melnick & Zeichner, 1998). Training at this level has been found to be effective at influencing overtly biased attitudes (Smith, Constantine, Dunn, Dinehart, & Montoya, 2006). However, while once they were verbalized overtly, public expression of prejudiced beliefs is less common today. Instead, the majority of Americans, particularly White Americans, reports a color-blind ideology regarding race (Bonilla-Silva, 2006) and do not explicitly report prejudiced attitudes. Fears of conflict induced by conversations about race and the desire to appear non-prejudiced has led to White Americans in particular, to subscribe to a color-blind racial ideology (CBRI), which posits that race does not matter as it relates to outcomes.

Nevertheless, disparate outcomes and differential treatment of people of color, particularly for Black Americans, remains a common occurrence. PD approaches that rely on building cultural knowledge alone are not sufficient in addressing deeply rooted biases. As Castro-Atwater (2015) highlighted,

> Although cultural knowledge training can provide helpful information on the relationship between language and culture, and knowledge of various cultural learning styles of students’ of color, this model does not emphasize teachers’ reflection of their own racial biases or identity, nor does it strive to shift teachers’ conceptual thinking about racism or institutional discrimination - both of which have been found to be critical first steps in combating color-blind racial ideology. (p. 220)

With this awareness, one can argue that cultural knowledge approaches used to support educators in understanding the relevancy of culture on learning outcomes for culturally and linguistically diverse students have missed the mark of effectiveness. Rather, effective PD opportunities must engage educators in difficult conversations about
systemic racial inequities, as this is a critical area to explore as educators seek to find permanent solutions to the differential outcomes for students of color.

Color-consciousness training may be a promising alternative. Color-consciousness training, also referred to as anti-bias training, focuses on shifting educators’ worldviews and thinking about the relevancy of race with a specific focus on reflecting on the degree to which one actively implements anti-bias actions in his or her own life (Delgado, 1995; Ladson-Billings, 1998). Color-consciousness training facilitates educators’ ability to develop awareness of their own cultural identifies and to think critically about the intersectionality (combined influence) of race, gender, and other aspects of culture, such as ability (Delgado, 1995; Ladson-Billings, 1998). Professional development training with a color-conscious focus allows educators to examine their cultural beliefs and attitudes, learn about institutional racism, and develop skills in negotiating racism in the school environment. More, specifically, Castro-Atwater (2007) highlighted that color-conscious training should

1. Help teachers develop a clearer sense of their own racial, ethnic and cultural identities and examine their attitudes toward other ethno-cultural groups;
2. Teach the dynamics of privilege and economic oppression and about school practices that contribute to the reproduction of social inequalities; and
3. Examine the dynamics of prejudice and racism and teach teachers how to deal with them in the classroom environment. (p. 4)

With these principles of effective models of PD to increase levels of cultural competency of educators in mind, one must consider ways to merge this knowledge with a sophisticated understanding of attitudes.
The Nature of Implicit Attitudes

Peoples’ attitudes shape how they think and behave. Allport (1954) offered a pioneering overview of the significance and power of beliefs. Allport (1954) suggested, “It is true that any negative attitude tends somehow, somewhere to express itself in action” (p. 14). Given this, it is critical to be aware of the cognitive processes that are involved in the formation and activation of attitudes, understand how these automatically activated attitudes often predict behavior, and how to go about changing these attitudes when they are undesired. This process begins with a clear understanding of attitudes.

Research in the area of attitudes typically offers two categorical distinctions of attitudes: explicit and implicit (Blair, 2002; Devine, 1989). Explicit attitudes are those attitudes and beliefs that are consciously held and controlled. These attitudes are typically measured through self-report measures and are most influenced by one’s motivation to control prejudiced responses (Devine, 1989). Stated differently, explicit attitudes are those beliefs that people are consciously aware of and willing to express verbally. Implicit attitudes, on the other hand, are beliefs that are automatically activated without intention or awareness, which, although not verbalized, still influence one’s behavior (Blair, 2002). It is important to understand the ways in which implicit attitudes are activated. Devine (1989) was one of the first researchers to examine the cognitive, motivational, and situational variables that lead to differential prejudiced behavior. Grounding her work in the field of cognitive information processing, Devine (1989) suggested that all people were subjected to the negative influences of stereotypes and bias.
More recently, researchers have begun exploring neurological brain processes to understand better the complexities of the activation of implicit biases. The result of this work suggests a neural basis for prejudiced beliefs (Amodio et al., 2003; Phelps et al., 2000), which can be measured in brain activity in the amygdala in response to familiar and unfamiliar African-American and White faces. These studies highlighted the fact that biased attitudes were activated automatically (Blair, 2002; Devine, 1989). Despite one’s desire to behave in egalitarian ways, the research evidence suggests that it is important to consider how the activation of these implicit attitudes may influence behavior, undesirably. This concept seems to align with the beliefs of educators who report that they do not see race as a factor in disciplinary outcomes, as discussed in Chapter 3.

**Malleability of Implicit Attitudes**

Based on this research evidence, it can be argued that no matter people’s conscious intentions, they are influenced by their automatically activated biases (Blair, 2002; Devine, 1989). Thus, understanding ways to reduce the influence of these implicit biases is critical, and as a result, researchers have sought to determine the degree to which people’s attitudes are malleable or, in other words, if these biases can be changed effectively. Since behavior is guided by attitudes, it is essential to identify strategies for changing these attitudes, if changes in behavior are to follow. Fortunately, there is a robust body of research on the malleability of implicit attitudes. Several recent studies yielded important findings that offered strong evidence for effective strategies of reducing levels of implicit bias (Dasgupta & Greenwald, 2001; Devine et al., 2012; Lai et al., 2014).
Dasgupta and Greenwald (2001) explored the possibility of reducing levels of implicit bias because of changing one’s social context, as opposed to an individual’s goals and motivations. By exposing undergraduate students to images of admired/disliked Black and admired/disliked White exemplars, Dasgupta and Greenwald (2001) measured levels of implicit bias, specifically automatic preference for White over Black racial groups, using the IAT. Results of the study indicated that levels of implicit bias were indeed reduced because of increased, balanced presentations of positive and negative traits and these reductions were maintained for a period of 24 hours. These lasting effects suggest that the interventions implemented were successful in influencing the unconscious associations held by participants. In other words, by altering participants’ exposure to more balanced representations of members of Black and White racial groups, participant’s core beliefs about these groups, and subsequently, their responses to members of these groups were altered.

Devine et al. (2012) reduced implicit racial biases by conducting a habit reduction intervention. The authors examined the degree to which levels of implicit bias can be reduced over time and the amount of effort required to accomplish that goal. They developed an intervention aimed at increasing both awareness of and concern for bias. Participants’ levels of implicit and explicit biases were measured prior to the intervention and at two points after the initial intervention session. As part of the intervention, participants in the treatment group were taught five strategies for reducing implicit racial bias.

These strategies included stereotype replacement, counter-stereotypic imagining, individuation, perspective taking, and increased opportunities for contact (Devine et al.,
The stereotype replacement strategies focus on teaching participants to recognize their stereotypical response, label them as such, and finally replace them with non-stereotypical responses. Counter stereotypical imagining involves teaching participants to imagine examples of out-group members that possess characteristics that are counter to popularly held stereotypes. The individualization intervention focuses on teaching participants to view others according to personal characteristics versus the traditional stereotypical characteristics. Perspective taking involves teaching participants to take on the perspective of stigmatized group members. Finally, the contact intervention involves increasing participant’s exposure and interaction with out-group members. Results of the study indicated that both awareness and concern about racial bias were increased, and overall levels of implicit bias, as measured by the implicit association test (IAT), were reduced from those in the treatment group (Devine et al., 2012).

The study served as an important framework for understanding strategies that were effective in reducing implicit attitudes (Devine et al., 2012). Results indicated that awareness of bias was increased and levels of implicit bias were decreased over a nine-week period. Based on these data, the researchers suggested that intervention participants needed to ensure that three conditions were met to reduce levels of bias successfully (Devine et al., 2012). First, participants needed to acknowledge that they held implicit biases and be motivated to address them. Second, participants needed to increase their awareness of the stereotypical responses or assumptions they made. Last, participants needed to devote sufficient time to practicing strategies aimed at reducing prejudiced attitudes. The findings provide positive evidence for the ability to change negative implicit attitudes toward Blacks and support that these changes can endure.
across time. Applying this framework in the K-12 setting would be meaningful in attempts to find long-term solutions to racial disparities influenced by implicit bias (Devine et al., 2012).

Most recently, Lai et al. (2014) completed a comprehensive study focused on reducing implicit racial preferences. This extensive study involved 17,021 non-Black participants and sought to identify the most effective methods for reducing implicit racial bias, as measured by the Implicit Association Test (IAT). A total of 17 interventions were tested for their effectiveness in lowering implicit bias scores. Findings indicated that interventions that involved exposure to counter stereotypical examples, intentional strategies to overcome bias, and evaluative conditioning were most effective.

Counter stereotypical interventions are focused on linking positivity with the target group (i.e., Blacks; Lai et al., 2014). Intentional strategies to overcome bias that have been tested involve the use of cognitive thinking strategies, such as if-then strategies to accomplish a desired response. Finally, evaluative conditioning, similar to classical conditioning, refers to the process of reconditioning one’s thoughts about a target group by associating that group with positively regarded stimuli (i.e., Black students and positive behavior in school; Lai et al., 2014). These results offer promising guidance for the development of interventions to reduce implicit biases, not only because of their influence, but also given the fact that all of the effective interventions were time efficient, requiring no more than five minutes to complete (Lai et al., 2014). This feature will be beneficial in the K-12 setting, where time is often a barrier to overcome related to PD experiences.
Conclusion

The aforementioned studies offer optimism for the possibility of changing the negative outcomes resulting from automatically activated biases (Cross, 1988; Devine et al., 2012; Gay, 2000; Ladson-Billings, 1995; Lai et al., 2014). Combining this data with the components of effective professional development related to cultural competency establishes an important next step for educational research. To that end, using the extant research on effective strategies for changes levels of bias and essential elements of color-conscious professional development, Chapter 4 will outline the methodology of an intervention designed reduce levels of bias among teachers through 8-weeks of PD focused on reducing teachers levels of color-blindness and implicit bias.
CHAPTER 4. INTERVENTION PROCEDURE AND PROGRAM EVALUATION

To influence levels of color-blind ideology and unconscious bias, educators will need to engage in color-conscious PD that focuses on self-awareness, cultural awareness, cultural skill, and culturally responsive actions (Atwater & Castro, 2008; Lindsey et al., 2003). These efforts should also include de-biasing strategies to support practitioners in becoming more aware of their own biases and support them through ongoing coaching sessions focused on practical strategies for reducing those biases (Devine et al., 2012; Ullucci & Battey, 2001). The intervention described in this chapter, referred to as the Addressing Biases Courageously (A.B.C.) Intervention, sought to increase teachers’ awareness about their own levels of bias and school-level disparities to activate cognitive dissonance, the uncomfortable feeling that occurs when one holds two conflicting ideas simultaneously.

Theory of Treatment

Research literature suggests that cognitive dissonance has been shown to be so aversive that people are highly motivated to resolve it (Festinger, 1962; Gawronski & Strack, 2004). Further, motivation to control biased attitudes has been shown to effect the regulation of biased responses (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002; Fazio & Dunton, 1997). With increased levels of dissonance, study participants will engage in eight weeks of professional development (PD) designed to increase their motivation to change their biased thoughts and actions, thereby reducing overall levels of bias. Through participation in the A.B.C. Intervention, participants’ reduced levels of bias will hypothetically influence disproportionate discipline outcomes by reducing
discrepancies between negative evaluations of misbehaviors exhibited by students. This theory of treatment is captured in Figure 2.

*Figure 2. Theory of treatment.*
Review of Methodology

Research Design

The intervention was developed as a randomized control and treatment group design with pretest and posttest measures. This design was chosen as it aligns most closely with the approach needed to address the identified research questions. Using this design, I sought to establish the strongest levels of equivalence between control and treatment groups through randomization. As a result, the effects of the intervention, as measured by changes in pretest and posttest assessments, can be discussed with increased validity (Shadish, Cook, & Campbell, 2002). Participants were randomly assigned into treatment and control groups in alignment with the research design. Participants assigned to the control group were exposed to PD content focused on classroom management practices only. They were not exposed to any content related to implicit bias or strategies aimed at reducing biases.

Participants

Participants for this study included certified teachers currently serving as classroom teachers, regardless of grade level and subject taught. Although school personnel other than classroom teachers address student discipline, classroom teachers were the focus of this study because of the need for study participants to practice the strategies taught across the eight weeks of intervention with consistency. Classroom teachers are able to interact with the same students each day, increasing the likelihood that the intervention strategies can be practiced with the same students frequently. Recruitment of participants was completed through email invitations to the participants, who were a part of the initial needs assessment study described in Chapter 3.
Teachers were invited to participate in the eight week intervention and asked complete an informed consent form approved by the JHU Institutional Review Board (Appendix I). Subsequent to the first round of recruitment, additional teachers from CSD that had initially expressed interest in the needs assessment, but did not participate, were also contacted by email in an effort to increase the pool of intervention participants. As an incentive to participate, potential participants were offered a $100 VISA gift card for completion of all intervention requirements across the 8 weeks of the intervention. After four weeks of recruitment, 10 classroom teachers committed to participate. Nine participants successfully completed all intervention activities across the 8 weeks of the intervention. One participant withdrew from the study after completing the pre-assessments in week two due to schedule conflicts.

**Instrumentation**

The instrumentation measures used in the design are best understood through explicit discussion of the three major tasks that constituted the intervention. Across these tasks, data from six key instruments was collected (see Table 2).

Table 2

*Data Collection Matrix*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Instruments Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels of Bias</td>
<td>CoBRAS</td>
</tr>
<tr>
<td></td>
<td>IAT</td>
</tr>
<tr>
<td>Completion of Online PD Modules</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td>Perspectives on Discipline</td>
<td>DPS</td>
</tr>
<tr>
<td></td>
<td>Discipline Vignettes</td>
</tr>
<tr>
<td>Ratings of Dissonance and Motivation</td>
<td>Likert Scale Ratings</td>
</tr>
</tbody>
</table>
Results from Intervention

The specifics related to each component of the intervention are discussed in the subsections that follow.

Task 1: Completion of Bias Assessments

As illuminated in Chapter 3, explicit and implicit attitudes serve as important factors to explore in attempts to find solutions to discipline disparities for Black students. For the purposes of this study, participants’ explicit attitudes represented the belief that race is not a factor in differing student outcomes and was assessed through self-reported attitude ratings as measured by the CoBRAS (Neville et al., 2000). The CoBRAS is a 20-item instrument on which participants responded to questions using a 5-point scale. A higher total score on the CoBRAS reflected a higher level of colorblindness. Neville et al. (2000) conducted a validation study to examine whether color-blind racial attitudes as measured by the CoBRAS were sensitive to a multicultural training intervention. Results indicated a strong effect size of .72. This effect size was determined by calculating the mean difference between the CoBRAS scores for the two groups in the validation study ($M = 50.21$ versus $M = 45.71$), and then dividing the result by the standard deviation ($SD = 5.67$).

The Implicit Association Test (IAT) was used to measure participants’ implicit attitudes (Greenwald et al., 1998). The data collected from the IAT were analyzed by examining the difference in response latencies in milliseconds and error rates. As a result, a difference (D) score was obtained and served as a quantifiable measure of levels of implicit bias toward Blacks and Whites. A review of existing research yielded direct studies of effect sizes related to the use of the IAT. Greenwald, Banaji, and Nosek (2015)
conducted a meta-analysis of the research on the predictive ability of the IAT. Across many studies using the IAT, Greenwald et al. (2015) found that the average effect size equated to .20. This effect size was determined based on analyses of correlations in the aforementioned meta-analyses.

In addition to these measures, participants in the treatment group were asked to respond to questions assessing their perceptions of the alignment between their levels of bias, as measured by their pretest assessment results and their values and beliefs. These Likert scale ratings were designed to tap into levels of motivation and cognitive dissonance. Participants assigned to the control group were not exposed to these questions, as levels of motivation and dissonance was not a component of the activities or PD that control group participants faced.

**Task 2: Participation in Online PD Modules**

PD content used for both groups included the use of video-based modules, which I recorded and narrated. Teachers completed these PD modules across the eight weeks of intervention. In the case of the treatment group, each module included a narrated presentation introducing a specific de-biasing strategy, an application activity, and reflection journal prompt to facilitate awareness of changes in thinking resulting from the implementation of the strategy. Fidelity related to the participation in the online PD was a core component of the A.B.C. intervention in that the online modules and content provided served as the primary mechanism for monitoring differential outcomes between the intervention and control group participants.

Participants assigned to the treatment group were taught five effective strategies, as identified in the research literature for reducing implicit racial bias over the course of
the eight weeks of the A.B.C. intervention (Devine et al., 2012; Lai et al., 2014). The five strategies included stereotype replacement, counter stereotypic imagining, individualization, perspective taking, and contact. The stereotype replacement strategy focused on teaching participants to recognize their stereotypical responses, label them as such, and finally replace them with non-stereotypical responses. Counter stereotypical imagining involved teaching participants to imagine examples of out-group members that possess characteristics that are counter to popularly held stereotypes. The individualization intervention focused on teaching participants to view others according to personal characteristics versus the traditional stereotypical characteristics. Perspective taking involved teaching participants to take on the perspective of stigmatized group members. Finally, the contact intervention involved increasing participant’s exposure and interaction with out-group members. The content used by Devine et al. (2012) was used to develop the PD modules used in the A.B.C. intervention, with permission from Dr. Devine (Appendix J). Participants provided weekly responses regarding their engagement with these strategies through entries in their reflective journals submitted through the intervention website.

Participants assigned to the control group, were also exposed to five specific strategies. As mentioned previously however, PD content focused solely on classroom management practices. I chose this as a focus area for two primary reasons. First, PD on classroom management represents a top need, as identified by teachers (Coalition for Psychology in Schools and Education, 2006). Secondly, focusing on improving teacher’s classroom management skills is a common strategy used by districts across the United
States to address the issue of disparate discipline (Fergus, 2017). Thus, the control group content served as a proxy for real-life PD approaches currently used in schools.

The strategies, or topics, presented to control group participants included the FAST method, responding to disrespectful behavior, defusing anger and aggression, and managing the cycle of acting out behavior. All of these topics were developed by Colvin (1999, 2004) and have extensive research evidence supporting their effectiveness. The F.A.S.T. method is an efficient approach for addressing three common causes for challenging classroom behaviors: power, attention, and avoidance. The acronym F.A.S.T. represents the four steps (i.e., find, assess, select, and test) that teachers should move through as they respond to a presenting behavior challenge.

The PD on responding to disrespectful behavior provided teachers with a six-step basic strategy to use to address disrespectful behavior in the classroom. The strategies taught in the module on defusing anger and aggression in the classroom focused on helping teachers understand effective ways to redirect students engaged in misbehavior and how to present directives and choices effectively. Finally, the content focused on managing the cycle of acting out behavior presented the seven phases of acting out behavior and provided teachers with strategies to recognize and effectively respond to behavior in each phase. The PD on managing the cycle of acting out behavior was extended across 2 weeks. Similar to treatment group participants, control group participants also provided weekly responses regarding their engagement with these strategies through entries in their reflective journals, which were submitted on the intervention website.
**Task 3: Perspectives on Discipline**

Finally, all study participants were asked to indicate their perspectives about discipline by providing their responses on two instruments. As was described in Chapter 2, all participants completed the Disciplinary Practices Survey (DPS), a tool used to assess their philosophies on discipline. Specifically, responses to the 34 questions on the survey instrument yield scores that aligned with one of three orientations: a philosophy of proactive discipline, a philosophy of reactionary discipline, or a philosophy of pragmatism. Additionally, using a model similar to the design used in Okonofua and Eberhardt (2015), case scenarios of students who committed minor infractions were presented to all study participants.

More specifically, participants were presented with vignettes about a student whose behavior was misaligned with classroom expectations. After reading about the student’s infractions (one for insubordination and the other for class disturbance), participants were then asked to respond to a series of questions regarding the scenarios and indicate their opinions using a 7-point Likert rating scale. In the original study, the researchers manipulated student race by using stereotypically Black (Deshawn) or White (Jake) names. Findings from the Okonofua and Eberhardt (2015) study indicated that teachers with higher levels of implicit bias viewed the same infractions as more problematic and warranting more severe consequences when a Black student committed the infractions compared to a White student. The case vignettes developed by Okonofua and Eberhardt (2015) and used in this study with permission (Appendix K) are shown in Figure 3.
Procedure

After receiving IRB approval, I developed the content for treatment and control groups. PowerPoint slides were recorded and application activities were developed for both groups based on the strategies taught. Subsequently, dedicated website pages were created for control and treatment groups and the prepared content was then uploaded to the websites.

Once the 4-week recruitment window expired, participants providing informed consent to participate in the intervention were assigned a confidential 6-digit participant number prior to data collection. This identification number was stored in a separate file from the data collected in a secured location. All participants were then contacted by email with instructions for completing pretest assessments (Appendix L).

After Week 1, results of pretest bias assessments were analyzed to create matched samples for control and treatment groups yielding a sample size of five participants for both control and treatment groups. Subsequently, one participant from the treatment

**Figure 3.** Case study vignettes.

**Insubordination Scenario:**

Jake (or DeShawn) is sleeping in class. You tell him to pick his head up and get to work. He only picks his head up. He chooses to rest it on his hand and continue to sleep. So you ask him one more time and again, Jake (or DeShawn) refuses to do work. You ask him to leave class and go to the office to tell them that he won’t do his work and chose to sleep instead. He refuses to do this as well.

**Disturbance Scenario:**

Jake (or DeShawn) is consistently disrupting the class environment by strolling around the classroom at random intervals, getting tissues from the tissue box multiple times during a 50 minute class, throwing items away constantly; in general, Jake (or DeShawn) circulates around the room and up and down the rows to see what other students are doing, have eyes on him, and disrupt the flow of the lecture or activity the class was participating in.
group withdrew from the study. Table 3 highlights pretest matched group means after the removal of data from the withdrawn participant.

Table 3

**Matched Groups Based on Pretest Assessments**

<table>
<thead>
<tr>
<th></th>
<th>IAT Pretest Group Mean</th>
<th>CoBRAS Pretest Group Mean</th>
<th>DPS Pretest Group Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td>.43</td>
<td>53.60</td>
<td>639</td>
</tr>
<tr>
<td>Treatment Group</td>
<td>.62</td>
<td>55.50</td>
<td>604</td>
</tr>
</tbody>
</table>

Results of pretest bias assessments were shared with participants assigned to the treatment group. All treatment group participants received their scores on the CoBRAS and IAT. They were asked to respond to questions about their perceived levels of dissonance and motivation, as previously mentioned.

Each week of the intervention involved a specific focus (see Table 4). Across Weeks 2 through 7, PD content was available to participants beginning on Friday of each week. Participants were instructed to review the online PD no later than Sunday and implement the strategy taught across the entire school week (Monday through Friday) in their classroom. Participants were expected to submit their reflection journals regarding their experience with the strategy by Sunday during each week of the intervention.

Participants completed posttest assessments in Week 8 of the intervention.
### Table 4

**Intervention Scope and Sequence**

<table>
<thead>
<tr>
<th>Week</th>
<th>Control Group Topic</th>
<th>Treatment Group Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Pretest Assessments</td>
<td>Pretest Assessments</td>
</tr>
<tr>
<td>Week 2</td>
<td>Review of PD Expectations</td>
<td>Review of PD Expectations, Review of District Discipline Data, Pretest Bias Assessment Results Shared</td>
</tr>
<tr>
<td>Week 3</td>
<td>FAST method</td>
<td>Stereotype replacement</td>
</tr>
<tr>
<td>Week 4</td>
<td>Responding to disrespectful behavior</td>
<td>Counter stereotypic imagining</td>
</tr>
<tr>
<td>Week 5</td>
<td>Defusing anger and aggression</td>
<td>Individualization</td>
</tr>
<tr>
<td>Week 6</td>
<td>Managing the cycle of acting out behavior Part 1</td>
<td>Perspective-taking</td>
</tr>
<tr>
<td>Week 7</td>
<td>Managing the cycle of acting out behavior Part 2</td>
<td>Contact</td>
</tr>
<tr>
<td>Week 8</td>
<td>Posttest Assessments</td>
<td>Posttest Assessments</td>
</tr>
</tbody>
</table>

### Data Collection

An embedded (QUAN (qual) design was used as the framework to guide data collection. Multiple sources of data were collected across differing timelines (see Table 5).

### Table 5

**Mixed Methods Data Collection and Timeline**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Quantitative</th>
<th>Qualitative</th>
<th>Data Collection Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoBRAS</td>
<td>X</td>
<td></td>
<td>Weeks 1 and 8</td>
</tr>
<tr>
<td>IAT</td>
<td>X</td>
<td></td>
<td>Weeks 1 and 8</td>
</tr>
<tr>
<td>DPS</td>
<td>X</td>
<td></td>
<td>Weeks 1 and 8</td>
</tr>
<tr>
<td>Discipline Vignettes</td>
<td>X</td>
<td></td>
<td>Weeks 1 and 8</td>
</tr>
<tr>
<td>Reflective Journals</td>
<td></td>
<td>X</td>
<td>Weekly</td>
</tr>
<tr>
<td>Dissonance and Motivation</td>
<td>X</td>
<td></td>
<td>Weeks 1 and 8</td>
</tr>
</tbody>
</table>

Quantitative data collected on levels of bias (as measured by the CoBRAS and IAT) and participation (as measured by weekly visits to the online module website) were collected to provide the data needed to test the hypothesis that participation in the A.B.C.
intervention focused on bias reduction strategies would result in reductions of levels of bias among treatment group participants. Additionally, quantitative data on perceptions of levels of dissonance and motivation was collected for participants assigned to the treatment group only. Qualitative data were collected concurrently, through participants’ completion of weekly reflective journal entries designed to capture their cognitive and emotional experiences because of implementing the strategies covered in the modules. Specifics regarding each of these aspects of data collection are discussed in more detail in the subsections below.

**Completion of Bias Assessments**

All participants completed the CoBRAS and IAT assessments as pre and posttest measures, in Weeks 1 and 8 of the intervention to capture quantitative data regarding levels of bias. As in the initial needs assessment, described in Chapter 3, data were collected electronically through the design of a dedicated website so that participants could respond to both tasks (i.e., CoBRAS and IAT) in one location and in one session. For added protection and confidentiality, participants’ identity was captured only by the six-digit participant code assigned to them.

**Participation in Online PD Modules**

Data logs from Weebly, the Learning Management System (LMS) used to deliver the online PD, served as the data collection tool to measure levels of fidelity related to this component. This data were collected each time a participant logged onto the intervention website. Participants were expected to access the website no less than one time per week. Participants were required to enter their assigned 6-digit participation code to indicate identity on each login.
Perspectives on Discipline

Participants’ Likert scale ratings (Figure 4) to the discipline vignettes developed by Okonofua and Eberhardt (2015) were also collected online through the Weebly website. Participants completed these assessments as pre and posttest measures, in Weeks 1 and 8. Additionally, participants’ responses to the DPS were collected in weeks one and eight. As in the needs assessment discussed in Chapter 2, these questions were embedded in a set of questions presented along with questions from the CoBRAS.

Figure 4. Ratings of student vignettes.

Participants’ Likert scale ratings of perceived levels of dissonance and motivation were collected from participants assigned to the treatment group only. Using a 6-point Likert scale rating (see Figure 5), treatment group participants indicated their perceived levels of dissonance and motivation in Weeks 1 and 8 of the intervention.
Figure 5. Ratings of motivation and dissonance.

Data on these mediating variables were captured intentionally to support discussions regarding the change process at the conclusion of the intervention (Lipsey, Freeman, & Rossi, 2004).

Data Analysis

Given the use of a mixed methods design, both quantitative and qualitative data analyses were conducted. Pre and Post assessment results from the CoBRAS and IAT, journal entries, perspectives about discipline, and responses to the case studies were reviewed as a part of data analysis. As previously discussed, the primary research question for the dissertation study focused on exploring the degree to which online PD is an effective approach for reducing educators’ levels of bias and perspectives about discipline. The
data analysis process began with the operationalization of the variables of interest and alignment of the instruments used with the identified research questions (Appendix M). More specifically, guiding data analysis efforts included the following data analysis questions:

1. Is participation in online professional development an effective approach for reducing educators’ levels of bias?
2. How do ratings related to motivation and dissonance change from Pre to Post-test for treatment group participants?
3. Are there differences in perspectives on the discipline of students among control and treatment group participants?

**Data Analysis Question 1**

Given the small sample size, standard parametric tests such as $t$-tests, were inappropriate to apply because the sample was not normally distributed. Therefore, an equivalent non-parametric test, the Wilcoxon Rank Sum Test, also referred to as the Mann-Whitney test, was used to compare pre and posttest scores on the IAT and CoBRAS between participants in the treatment group and the control group participants.

**Data Analysis Question 2**

Rate of change analyses, using nonparametric statistical tests, were conducted to explore the degree to which participants assigned to the treatment group showed changes in levels of motivation and dissonance. Treatment group participants’ pre and post Likert ratings of levels of motivation and dissonance were analyzed to provide quantitative data to support the analysis of the influence of the intervention on these mediating variables.
**Data Analysis Question 3**

Finally, research suggests that participants with stronger implicit biases will yield increased disproportionate outcomes in office discipline referrals (Okonofua & Eberhardt, 2015; Van den Bergh, Denessen, Voeten, & Holland, 2010). Thus, comparisons of changes, in participants’ responses to discipline vignettes, using the Wilcoxon Rank Sum Test, were explored to capture the relationship between levels of bias and perceptions about student discipline. Further, comparisons of pre and posttest means from the DPS were also analyzed to assess the influence of the intervention on changes in teachers’ philosophy or orientation regarding discipline.

In addition, data on teachers’ experiences while implementing the strategies taught across the weeks of the intervention, as measured by reflection journal entries, were analyzed to evaluate changes in perspectives related to discipline. Using this data, I sought to gauge changes in levels of comfort in discussing issues of race, awareness of the disadvantages of color-blind attitudes, and motivation to change biased responses. To accomplish these tasks, guidelines for emergent thematic analysis, as described by Braun and Clarke (2006), were used to analyze reflection journal entries submitted by control and treatment group participants.

**Process Evaluation**

To evaluate the fidelity of the processes associated with the intervention, a process evaluation question that was answerable, specific, practical, and measureable was needed. Using the components identified in the logic model, developed to guide this design of this research study (Appendix N) and previously described theory of treatment, an appropriate process evaluation question related to the intervention of focus included
questioning the extent that at least 85% of study participants completed the intervention activities as designed, as measured by reflective journal entries. The intention of the development of this question was to support my analysis of the actual implementation of the intervention components to assess whether these components of the intervention were implemented as planned. The process evaluation question aligns with the characteristics of effective evaluation questions, as highlighted by Lipsey et al. (2004), as it incorporates specific criteria for success, identifies specific standards of performance, and indicates how these standards will be measured. Analysis of fidelity data is an essential building block that will support the later stages of outcome evaluation and interpretation of study results.

As O’Donnell (2008) discussed, in the K-12 setting, measuring fidelity related to efficacy and effectiveness is important. Fidelity of efficacy focuses on the degree to which interventions yield the intended outcomes in ideal settings while measures of fidelity focused on effectiveness explore the extent to which desired outcomes are seen in field-based applications of interventions. In the case of the current intervention of focus, fidelity is conceptualized from an effectiveness viewpoint in that my interest, and the focus of this study, lies in understanding the effectiveness of teacher’s engagement in activities designed to influence levels of bias toward people who are Black in the context of a K-12 environment.

When assessing levels of fidelity, I operationalized high levels of fidelity by participant’s completion of at least 90% of intervention activities as designed. In contrast, low fidelity was defined by a participant’s completion of less than 50% of intervention activities as designed. These criteria for measuring fidelity will allow me to make
objective interpretations regarding the feasibility of implementing the intervention in the K-12 setting and the potential for scaling up (O’Donnell, 2008). Further, data obtained as a result of intervention implementation can provide guidance regarding the potential need for restructuring intervention components and also allow me to thoughtfully address Type III errors (correctly rejecting the null hypothesis but for the wrong reason), instead of inaccurately assuming failed methodology (Dusenbury, Brannigan, Falco, & Hansen, 2003).

Given the importance of fidelity as discussed above, I identified specific ways to monitor intervention fidelity, particularly participant responsiveness. Participant responsiveness refers to the ways in which participants actually engaged in the intervention activities. Related to the current intervention, this included participant’s level of interest in the content, perceptions of relevance, and their willingness to apply the activities to their experiences managing discipline issues in the K-12 setting. As conceptualized in the logic model and theory of treatment, the desired outcome of reductions in participant’s levels of bias are dependent on the conditions of dissonance and motivation.

Responsiveness is important for both of these conditions. More specifically, it is critical that participants have an interest in engaging in difficult conversations about race and see the relevancy of the need to reduce levels of bias to address the unintentional effects of biased responses. Further, the quality of the curriculum used as part of the A.B.C. intervention is adequate, given that it is based on well-researched interventions that have been shown to reduce levels of bias effectively. However, participant’s motivation to apply these interventions with high levels of fidelity is necessary in order
for the strategies taught to influence participants’ levels of bias and perspectives on discipline optimally (Devine et al., 2012).

**Conclusion**

Based on the evidence from the research literature and results of a recent needs assessment, this chapter highlighted the design and methods of an intervention aimed at reducing levels of bias through eight-weeks on online PD. Informed by the guiding research questions, decisions about data collection, data analysis, and techniques for monitoring intervention fidelity were identified. Chapter 5 contains key findings of the intervention and presents a discussion of their implications.
CHAPTER 5. INTERVENTION FINDINGS AND IMPLICATIONS

The previous chapter outlined the methodology used to explore the influence of participation in eight-weeks of online PD designed to impact educators’ levels of bias, levels of motivation and dissonance, and perspectives about discipline. As discussed, I hypothesized that participation in the PD would result in reduced levels of bias among treatment group participants, as measured by comparisons of pre and posttest scores on the CoBRAS and IAT. Because of these reductions, I hypothesized those disparate discipline outcomes for Black students as measured by participants’ responses to the student behavior vignettes would be minimized. In this chapter, results of the quantitative and qualitative analysis related to the research questions are presented. Further, study limitations, opportunities for future research, and implications for K-12 schools are discussed.

Fidelity of Implementation

Across each week of the 8-week intervention window, I monitored participants’ compliance with all assigned tasks. As shown in Table 6, this included completion of pretest assessments, accessing PD content no less than weekly, submitting reflection journal entries weekly, and completion of posttest assessments.
Table 6

Fidelity Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Data Collection Tool</th>
<th>Frequency of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of Bias Assessments</td>
<td>CoBRAS, IAT</td>
<td>Week 1, Week 8</td>
</tr>
<tr>
<td>Participation in Online PD Modules</td>
<td>Log-In Tracking Log Reflective Journal</td>
<td>Weekly, Weekly</td>
</tr>
<tr>
<td>Engagement in De-biasing Activities</td>
<td>DPS, Discipline Vignettes</td>
<td>Week 1, Week 8</td>
</tr>
<tr>
<td>Perspectives on Discipline</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As a proactive strategy, I also emailed each participant weekly offering a reminder about expectations and due dates (Figure 6).

Happy Friday!

I hope you’ve had a great week.

Module 2 is now available and can be accessed at the same website as last week’s module. Please view the module no later than Sunday so that you can begin implementing the Strategy on Monday.

Also, please remember to submit your reflection journal entry by Sunday to capture your experiences with the strategy you learned about in Module 1.

Best,

Renae

Figure 6. Friday reminder email.

This strategy worked well, as participants’ engagement in the intervention activities resulted in 95% fidelity of implementation across the eight-weeks of intervention. Breaks in fidelity were related to participants’ submission of reflection journals across each week by the Sunday deadline. While all participants provided reflections about their experiences with all of the presented strategies, in some weeks, participants combined their reflection entries. Additionally, some flexibility was required
to facilitate this high level of fidelity related to participant implementation. For example, due to Fall Break schedules when teachers were not in school, completion of the module was delayed until school resumed. As a result, there was a 2-week break between teacher’s completion of Module 2 and Module 3. This delayed the original intervention completion timeline by two weeks.

Quantitative Analysis

The Impact of PD on Levels of Bias and Perspectives About Discipline

Data analysis related to the influence of online PD on levels of bias and perspectives about discipline was completed using the Wilcoxon Rank Sum Test, a non-parametric test used to compare the mean ranks of the control and treatment groups. This test was completed using pre and post data captured from the IAT, CoBRAS, and DPS. Results are highlighted below.

IAT. Table 7 summarizes IAT data analysis for the control group. To evaluate if there were significant differences in Pre and Post IAT scores for control group participants, a Wilcoxon Signed-ranks test was utilized. The results indicated that although the posttest measurements show an increase in the mean rank for IAT scores (Mean rank = 2.67 vs. Mean rank = 3.50), the change is not significant Z = -.13, p = .89.

Table 7

<table>
<thead>
<tr>
<th>Wilcoxon Signed-ranks Test for Control Group IAT Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>Negative Ranks</td>
</tr>
<tr>
<td>Positive Ranks</td>
</tr>
<tr>
<td>Ties</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Z</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>
The same test was conducted to evaluate if there were significant differences in pre and post IAT scores for treatment group participants. Results indicated that although the posttest measurements show a decrease in the mean rank (Mean rank = 3.00 vs. Mean rank = 2.00), the change is not significant ($Z = -.36, p = .71$).

Table 8

*Wilcoxon Signed-ranks Test for Treatment Group IAT Scores*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post – Pre</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Ranks</td>
<td>2</td>
<td>3.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>2</td>
<td>2.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Ties</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$Z$</td>
<td></td>
<td>-.36</td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td></td>
<td>.71</td>
<td></td>
</tr>
</tbody>
</table>

**CoBRAS.** Wilcoxon Signed-ranks tests were also completed to compare Pre and Posttest means for control and treatment group participants based on CoBRAS scores.

Table 9 indicates analysis results for control group participants. For the control group, results indicated that on Factor 1 (i.e., Unawareness of Racial Privilege) posttest mean ranks showed a decrease from pretest measurements (Mean rank = 3.67 vs. Mean rank = 2.00), but the change was not significant ($Z = -.94, p = .34$). Factor 2 (i.e., Unawareness of Institutional Discrimination) scores showed an increase in the mean rank (Mean rank = 2.75 vs. Mean rank = 4.00) from pre to posttest but the change was not significant ($Z = -.94, p = .34$). Factor 3 (i.e., Unawareness of Blatant Racial Issues) posttest mean ranks showed a decrease from pretest measurements (Mean rank = 3.50 vs. Mean rank = 1.50), but this change was not significant ($Z = -.73, p = .46$). Analysis of total scores on the CoBRAS, an aggregate of all 3 factors, indicated that the CoBRAS total mean scores were greater during the pretest measurement compared to for posttest measurement.
(Mean rank = 3.38 vs. Mean rank = 1.50), but these changes were not significant ($Z = -1.62, p = .10$).

Table 9

*Comparisons of CoBRAS Pre and Posttest Scores for Control Group Participants*

<table>
<thead>
<tr>
<th></th>
<th>F1 Post - F1 Pre</th>
<th>F2 Post - F2 Pre</th>
<th>F3 Post - F3 Pre</th>
<th>Total Post - Total Pre</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Z$</td>
<td>-.94</td>
<td>-.94</td>
<td>-.73</td>
<td>-1.62</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.34</td>
<td>.34</td>
<td>.46</td>
<td>.10</td>
</tr>
</tbody>
</table>

Similar analyses were completed for treatment group participants, as shown in Table 10. Results indicated that for the treatment group, Factor 1 (i.e., Unawareness of Racial Privilege) posttest scores showed a decrease in the mean rank (Mean rank = 2.50 vs. Mean rank = .00), and this change is approaching levels of significance ($Z = -1.82, p = .06$). For Factor 2 (i.e., Unawareness of Institutional Discrimination) posttest scores showed a decrease in the mean rank (Mean rank = 2.00 vs. Mean rank = .00), but this change was not significant ($Z = -1.60, p = .10$). On Factor 3 (i.e., Unawareness of Blatant Racial Issues) posttest scores showed a decrease in the mean rank (Mean rank = 1.50 vs. Mean rank = .00), but the change was not significant ($Z = -1.41, p = .15$). However, analysis of total scores on the CoBRAS, an aggregate of all 3 factors, indicated that CoBRAS total mean posttest scores showed a decrease in the mean rank when compared to pretest means (Mean rank = 2.50 vs. Mean rank = .00), and this change is approaching levels of significance ($Z = -1.82, p = .06$).
Table 10

Comparisons of CoBRAS Pre and Posttest Scores for Treatment Group Participants

<table>
<thead>
<tr>
<th></th>
<th>F1 Post - F1 Pre</th>
<th>F2 Post - F2 Pre</th>
<th>F3 Post - F3 Pre</th>
<th>Total Post - Total Pre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-1.82</td>
<td>-1.60</td>
<td>-1.41</td>
<td>-1.82</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.06</td>
<td>.10</td>
<td>.15</td>
<td>.06</td>
</tr>
</tbody>
</table>

The Influence of PD on Motivation and Dissonance

Participants assigned to the treatment group were asked to rate their levels of motivation and dissonance in Weeks 1 and 8 of the intervention. Pre and post comparisons of these rankings were analyzed using the Wilcoxon sign ranks test. Results did not indicate significant differences in levels of motivation and dissonance (see Table 11).

Table 11

Pre and Post Comparisons of Levels of Motivation and Dissonance

<table>
<thead>
<tr>
<th></th>
<th>Motivation Post - Motivation Pre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-.44</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.65</td>
</tr>
</tbody>
</table>

The Impact of PD on Perspectives About the Discipline of Students

Data from participants’ responses to the DPS survey, as well as to responses to student behavior vignettes, were analyzed to measure the influence of the intervention on teachers’ perspectives about the discipline of students.

DPS. Wilcoxon signed-ranks tests were utilized to evaluate if significant differences in pre and posttest scores were evident because of the intervention. As discussed in Chapter 4, the DPS includes three scales, which measure different
orientations related to disciplinary approaches. These scales include a preventive (PREV) orientation, a reactionary (SUSP) orientation, and a pragmatic (PRAG) orientation.

Table 12 indicates results of the data analysis for control group participants. Results indicate that PREV scores showed an increase in the mean rank from pretest to posttest (Mean rank = 2.50 vs. Mean rank = 3.33), but the difference was not significant ($Z = -0.68, p = .49$). Comparisons of pretest and posttest SUSP scores also showed an increase in the mean rank (Mean rank = 2.00 vs. Mean rank = 2.67), but the difference was not significant ($Z = -1.09, p = .27$). Finally, PRAG scores indicated that an increase in the mean rank from pretest to posttest (Mean rank = 2.50 vs. Mean rank = 5.00), but again, the difference was not significant ($Z = -0.68, p = .49$).

Table 12

Comparisons of Pre and Posttest DPS Scores for Control Group Participants

<table>
<thead>
<tr>
<th></th>
<th>Prev Post - Prev Pre</th>
<th>Susp Post - Susp Pre</th>
<th>Prag Post - Prag Pre</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Z$</td>
<td>-0.68</td>
<td>-1.09</td>
<td>-0.68</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.49</td>
<td>.27</td>
<td>.49</td>
</tr>
</tbody>
</table>

Equivalent tests were performed on pretest and posttest data collected from treatment group participants (see Table 13). Results indicate that PREV scores showed increase in the mean rank from pretest to posttest (Mean rank = 2.00 vs. Mean rank = 2.67), but the difference was not significant ($Z = -1.09, p = .27$). Comparisons of SUSP scores showed a decrease in the mean rank from pretest to posttest (Mean rank = 3.25 vs. Mean rank = 1.75), but the difference was not significant ($Z = -0.55, p = .58$). Finally, PRAG scores for treatment group participants, showed an increase in the mean rank from pretest to posttest (Mean rank = .00 vs. Mean rank = 2.50), and this difference was approaching levels of significance ($Z = -1.82, p = .06$).
Table 13

Comparisons of Pre and Posttest DPS Scores for Treatment Group Participants

<table>
<thead>
<tr>
<th></th>
<th>Prev Post - Prev Pre</th>
<th>Susp Post - Susp Pre</th>
<th>Prag Post - Prag Pre</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Z</strong></td>
<td>-1.09</td>
<td>-.55</td>
<td>-1.82</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.27</td>
<td>.58</td>
<td>.06</td>
</tr>
</tbody>
</table>

**Responses to case vignettes.** Pre and posttest comparisons of participants’ ratings of student behavior were analyzed. Specifically, data analysis explored whether differences existed in participants Pre and posttest ratings of student behavior. Separate analyses were performed for each of the seven questions that participants answered. As discussed in Chapter 4, these questions were focused on particular themes and coded according to keywords, including severe, hinders order, irritated, severely disciplined, trouble maker, shows pattern, and needs suspension. The codes represented the focus of the question presented to participants. Analyses were completed separately for participants who responded to the behavior of a Black student and those who responded to the behavior of a White student. Tables 15 and 16 highlight results of the analyses.

First, Mann-Whitney tests were completed comparing the differences in pre and posttest responses of participants who were presented with the case vignette for a Black student (DeShawn). Results indicated that severe scores were greater for control group participants (Mean Rank = 7.50) compared to for Treatment group participants (Mean Rank = 2.50), and this difference was significant ($U = .00, p = .00$). Responses for the hinders order question revealed that scores were greater for control group participants (Mean Rank = 7.17) compared to for treatment group participants (Mean Rank = 3.00), and this difference was significant ($U = 2.00, p = .02$). Comparisons of irritated scores
were greater for control group participants (Mean Rank = 6.50) compared to for treatment group participants (Mean Rank = 4.00), but this difference was insignificant ($U = 6.00, p = .18$). *Severely disciplined* scores were greater for control group participants (Mean Rank = 7.25) than for treatment group participants (Mean Rank = 2.88), and the difference was significant ($U = 1.50, p = .01$). *Trouble maker* scores were greater for treatment group participants (Mean Rank = 5.63) compared to for control group participants (Mean Rank = 5.42), but this difference was insignificant ($U = 11.50, p = .90$). Comparisons of *shows pattern* scores indicated higher scores for treatment group participants (Mean Rank = 7.88) compared to control group participants (Mean Rank = 3.92), and this difference was significant ($U = 2.50, p = .03$). Finally, *needs suspension* scores were greater for control group participants (Mean Rank = 5.83) compared to for treatment group participants (Mean Rank = 5.00), but this difference was insignificant ($U = 10.00, p = .41$).

### Table 14

**Comparisons of Control and Treatment Group Ratings of Behavior for Black Student**

<table>
<thead>
<tr>
<th></th>
<th>Severe Hinders Order</th>
<th>Irritated Severely Disciplined</th>
<th>Troublemaker</th>
<th>Shows Pattern</th>
<th>Needs Suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>.00</td>
<td>2.00</td>
<td>6.00</td>
<td>1.50</td>
<td>11.50</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>10.00</td>
<td>12.00</td>
<td>16.00</td>
<td>11.50</td>
<td>32.50</td>
</tr>
<tr>
<td>Z</td>
<td>-2.631</td>
<td>-2.315</td>
<td>-1.316</td>
<td>-2.348</td>
<td>-1.121</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.00</td>
<td>.02</td>
<td>.18</td>
<td>.01</td>
<td>.03</td>
</tr>
</tbody>
</table>

Conversely, as shown in Table 15, comparisons of pre and posttest differences in the responses for participants who were presented with the case vignette for a White student (Jake) were insignificant for all seven scales.
Table 15

Comparisons of Control and Treatment Group Ratings of Behavior for White Student

<table>
<thead>
<tr>
<th></th>
<th>Severe Hinders</th>
<th>Irritated Order</th>
<th>Severely Disciplined</th>
<th>Troublemaker Shows Pattern</th>
<th>Needs Suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>3.00</td>
<td>4.00</td>
<td>4.00</td>
<td>3.50</td>
<td>2.00</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>6.00</td>
<td>7.00</td>
<td>7.00</td>
<td>6.50</td>
<td>5.00</td>
</tr>
<tr>
<td>Z</td>
<td>-1.07</td>
<td>-70</td>
<td>-70</td>
<td>-.96</td>
<td>-1.52</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.28</td>
<td>.48</td>
<td>.48</td>
<td>.33</td>
<td>.12</td>
</tr>
</tbody>
</table>

Summative Statements on Quantitative Findings

Overall, results of the qualitative statistical analyses regarding the influence of the intervention are promising, although the outcomes observed were not always statistically significant. Reductions in color-blind attitudes approached levels of statistical significance for the treatment group, most notably related to their increased awareness of racial privilege. Although reductions in treatment group participants’ levels of implicit bias, as measured by the IAT, were statistically insignificant, comparisons of pre and posttest IAT score means indicate a 55% change across the 8 weeks of intervention. This change rate was only 2% for control group participants. In fact, posttest group means for control group participants on the IAT actually increased slightly, while IAT group means for the treatment group decreased. At a minimum, these patterns suggest that the A.B.C. intervention was successful in helping participants’ reduce their belief that race has no impact on outcomes. This awareness is a critical step needed to address implicit biases effectively.

Analysis of changes in levels of motivation and dissonance for treatment group members yielded no significant results. As indicated in theory of treatment discussed in
Chapter 4, these components are needed to reduce levels of cognitive dissonance that can promote changes in behaviors. Although statistical analysis did not indicate that these factors were adequately influenced, the data is useful in guiding further research in efforts to increase the impact of the intervention on levels of implicit bias.

Important findings related to changes in teachers’ philosophies about discipline were also observed. Results indicated that treatment group participants experienced changes in their perspectives about discipline. Comparisons of their pre and posttest responses on the DPS yielded results approaching levels of significance related to their views on pragmatic discipline. This suggests that their heightened awareness of racial differences, as indicated by changes in their CoBRAS and IAT scores, may have prompted them to consider the use of exclusionary discipline only when the behaviors were extreme and other strategies for intervention had been deemed unsuccessful.

Additionally, treatment group participants indicated decreases in punitive discipline orientations (SUSP) and increases in preventative orientations (PREV). While these changes were not statistically significant, they are meaningful for the analysis of the influence of the intervention on teacher’s perspectives about discipline. While no significant findings, regarding perspective of discipline as measured by the DPS, were observed among control group participants, the data did indicate that those in the control group showed a higher percentage change with respect to their subscription of a preventative approach to discipline. This suggests that PD focused on effective classroom management strategies can be effective.

More information is needed related to this point however. I posited that conclusions about the influence of the PD on classroom management should be
interpreted with caution since data from control group participants also showed increased means related to the orientations of suspension and pragmatism as measured by the DPS. It is likely that the strong focus on behavior across the intervention timeframe elevated control group members’ awareness and sensitivity to discipline issues overall, thereby contributing to elevated scores on the DPS across all areas assessed. This hypothesis should be explored further as it may have significant implications for the approaches used in K-12 settings to provide teachers with training related to classroom management. These results suggest that teachers’ perspectives about discipline could potentially worsen before changes can be seen.

Finally, data analysis of participants’ perspectives of discipline responses, as measured by responses to the case vignettes, was particularly powerful. Data obtained from participants’ responses to the student vignettes illuminated patterns of disparate outcomes for Black students. The data indicated that when presented with a behavior vignette that included a stereotypically Black student name (DeShawn), control group participants rated the students’ behavior as more severe, considered the behavior to be a hindrance to instruction, and believed that the student should be severely disciplined.

Treatment group participants believed that the Black students’ behavior was indicative of a pattern. These differences were statistically significant. However, an important point here is that the question posed to participants (i.e., rate the extent to which you think the student’s misbehaviors are indicative of a pattern), does not offer any value judgments about the nature of the pattern. While the behavior vignette focused on problematic behaviors in the classroom, namely, insubordination and disruption, identifying patterns of behavior could actually be seen as a skill. As mentioned above,
treatment group participants demonstrated close to significant changes related to pragmatic orientations about discipline. This orientation may be correlated with identification of students who need additional levels of support with behavior. In this case, the statistically significant finding could be an indication of increased skills in identifying the need to support students in different ways due to patterns of behavior. More data is needed to clarify this outcome.

Notably, no statistically significant differences were found when participants were presented with a behavior vignette that included a stereotypically White student name (Jake). These results align with previous research evidence indicating differential treatment of Black students based on teachers’ perceptions of behavior. These findings support the need to consider biases explicitly associated with student race in the exploration of root causes of discipline disparities. At the least, these results confirm the need to engage in explicit discussions about cultural mismatches between students and teachers that may influence teachers’ perceptions of student behavior.

**Qualitative Analysis: Emergent Theme Analysis**

Emergent thematic analyses of reflection journal entries, as described by Braun and Clarke (2006), were completed to deepen my understanding of participants’ experiences with the interventions and help to clarify quantitative results. Braun and Clarke (2006) provide clear guidelines, through the application of a four-step process, for conducting thematic analysis. In accordance with these guidelines, I first de-identified the data by removing participant codes associated with each journal entry. This was important because codes beginning with the number one represented a participant
assigned to the control group while participant codes starting with the number two referenced participants assigned to the treatment group.

Secondly, I completed two primary reads of the data, while blind to the control and treatment groups, looking for themes that emerged from the data. After completing those read-throughs, the third step involved identification and operationalization of themes to be used for coding. Finally, after deciding on a coding framework, data were coded with knowledge of control and intervention status. Four themes emerged from the data and are described in the next section and summarized in Table 16.

Table 16

Coding Structure for Thematic Analysis

<table>
<thead>
<tr>
<th>Theme 1: Primary level of impact</th>
<th>Control (n = 17)</th>
<th>Intervention (n = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other educator</td>
<td>0</td>
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<tr>
<td>Specific group</td>
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<td>Theme 2: Relational focus</td>
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<td>12 of 12</td>
</tr>
<tr>
<td>Perspective taking</td>
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<td>4</td>
</tr>
<tr>
<td>Value of praise /encouragement</td>
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</tr>
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<tr>
<td>Developing relationships</td>
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<tr>
<td>Theme 3: Behavior management strategies</td>
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<td>9 of 12</td>
</tr>
<tr>
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<td>1</td>
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<tr>
<td>Address specific issues</td>
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<td>De-escalation</td>
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<tr>
<td>Separate behavior from student</td>
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<tr>
<td>Theme 4: Teacher self-awareness</td>
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<td>12 of 12</td>
</tr>
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<tr>
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<tr>
<td>Explicit mention of race/ethnicity</td>
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Note. a= Based on number of reflective journal entries.
Theme 1: Primary Level of Impact

The level of impact associated with the implementation of the strategies taught, differed between the journal entries of control and treatment group participants. Most significantly, the only teacher to discuss the opportunity to have an impact on another educator was in the treatment group. This is indicated in the following quote as written in a reflection journal entry submitted by a participant in the treatment group:

I implemented the stereotype replacement strategy this week. After watching the module, I actually had a scenario where I was able to utilize this strategy with a co-worker. The co-worker had made a stereotypical response to behaviors of a group of students. I was able to recognize this and offer a replacement thought to the response. The co-worker had made a statement that "the Black kids just get in more trouble. The White kids listen and do what I say, but the Black kids just don't." My internal thoughts were immediately that this was a stereotypical response to race. I offered an alternative response in conversation by stating that I think it has more to do with a behavior associated with culture from those that are in the poor and working poor levels of society. I have seen that students from those types of lives typically show the same behavioral responses to our directions, but really only when their family is experiencing a tough time like in between paychecks.

Both groups reported that their work primarily targeted individual students. An example of this level of impact is evidenced from the reflective journal entry of a participant assigned to the control group. The teacher noted,

I focused on the six steps we learned about defusing anger and aggression particularly with one student that has difficulty transitioning from a preferred activity to a non-preferred activity. With this student, I focused on the choice I was giving her. She loves math sheets and would do them all day long, and tends to want to do math sheet during reading block. When she refused to transition, the choice was given of losing math sheets for choice time. Also, I discovered that it was important to give the student time to comply with the request as was discussed in the Module.

Overall, the control group focused on applying the strategies to the whole class, whereas the treatment group placed a greater emphasis on specific groups of students. This finding aligns with the nature of the strategies that control group participants faced.
As highlighted previously, control group participants were exposed to content, which focused on classroom management. Although participants were not explicitly instructed to apply the techniques to the entire classroom, the strategies taught could easily be incorporated as a part of a teacher’s universal approach to behavior management. In contrast, participants in the treatment group were asked to focus on particular students that may have been influenced by stereotypes and implicitly held biases. This aligns most closely with the application of the strategies at the individual level.

**Theme 2: Relational Focus**

A focus on the relationship between the teacher and the student(s) was evident in the journal entries of both groups. However, this theme was present among reflective journal entries of treatment group participants. Notably, 100% of participants assigned to the treatment group referred to the codes contained within this theme. Teachers in the treatment group were more likely to discuss issues of perspective taking and the development of relationships with students. The following quote highlights a reflective journal entry from a participant from the treatment group, which demonstrates this theme:

This week I practiced individuating. I focused on two of my students who are labeled ED (emotional disabilities). Student A has been in my class since the beginning of the year, and Student B has only been with us for a week. Student A has been labeled as a compulsive liar, lazy, etc. by other teachers. Student A has a pretty rough home life, so we had some conversations about how that effects her at school. She is currently on a behavior chart, so we also talked about what motivates her at school and what she needs me to do better as her teacher. Student B is very new to my room. He has been labeled as argumentative, disrespectful, and disruptive. His first day in my room was really rough and he ended up getting sent to the office, so I admit I had kind of written him off as a "bad" kid. During our first conversation, I learned he was dealing with some issues his sister was having at home, so he was not a priority there. The second time we talked, I found him wandering the halls without a pass. He had been kicked out of class. I let him take his break with me in my room, and since then, his class behavior has really improved. I was really happy at how productive these conversations were with my kiddos. Both of them really opened up to me, and our relationships have improved.
tremendously. I really hope that I can continue to use this strategy with them! When I moved past their ED label and all that comes with it, I was able to see how much these kids are dealing with and how awesome they really are.

While responses from participants in the control group were much less likely to focus on developing strong personal relationships with students, their responses did demonstrate an increased awareness about the connection between their ability to remain in control of the classroom and their students’ behavior, as indicated by the following quote:

I used the strategy to calm students down before reaching the escalation level. I found myself trying to calm down before approaching students so that I was not the cause of them becoming escalated. I felt better, because I did not lose my cool. I do not want the students to see me become unprofessional in the classroom. I think the students respected me more, because in spite of the disrespect I endured, I did not lose control or my temper.

Further, the code for equal treatment among students is an exemplar of a notable difference between control and treatment group participants. Analysis of reflective journal entries revealed that 83% of teachers in the treatment group referred to this code either explicitly or implicitly, as compared to 0% of teachers in the control group. A powerful quote from a member of the treatment group highlights this point.

I thought of two students and wrote their names down with particular attributes that I thought each student had that was bothersome and that I thought might be due to my biases. For example, both students were talkative and I thought they at times had an attitude. I then tried to have individual conversations with each child on a one-on-one basis to break the biases that I have. I was able to really have a discussion with one student, and I was able to briefly talk to the other student. This experience made me feel that I am letting my biases over my students at times affect how I am building relationships with these kids. Because both kids had been in trouble at the beginning of the year and had attitudes, I didn't really have too much interaction with them, which was not a good idea. I was not able to really get to know them and not have the biases that I had. What I realized is that I need to try to have individual conversations with all of my students to really get to know them as people. If I don't do that, then biases over who I think they are arise. This prevents me from teaching them and helping them get a good education. It also makes me want to call on them for bad behavior before other kids, which is not okay.
Based on the data, I posit, that the teachers in the intervention group demonstrated far greater awareness of relational factors between themselves and their students than those in the control group.

**Theme 3: Behavior Management Strategies**

Based on the different methods and strategies offered to the two groups, it is not surprising that teachers from the control group made greater reference to behavior management strategies, since this was the focus of the PD they received. Teachers from the control group tended to focus more on negative behaviors and ways in which to prevent or resolve those behaviors. The following quote provides an example of this orientation as indicated by a reflective journal entry from a participant assigned to the control group:

A scholar did not want to attend a lesson. When redirected, the student threw up his folder, crossed his arms, and said no. I walked up to the scholar and calmly gave him the choice to come to the lesson, or to try another work. I reminded him that he would not receive help on this work when it was time if he chose not to come to the lesson. I restated his options once more and walked away. By the time I had finished getting back to my chair, he was getting up (still pouty) and sat in his seat for the lesson. It felt pretty good that it was successful. This method is my typical choice of action. However, I have a hard time walking away and allowing the scholar to choose most of the time.

In contrast, teachers from the treatment group prioritized the contextualization of students’ behavior and demonstrated intentional mental separation of the student from the negative behavior. This is related to the intervention goal of increasing teachers’ awareness of potential bias that could influence how they interpret student behavior. An example of this is captured in the following quote from a participant assigned to the treatment group:

I applied this week’s strategy with my classroom behavior system. I noticed this week that on more than one occasion, I made boys "clip down" for talking, when I was more lenient with girls (verbal warning). I need to ensure that I give the same
consequence to all students, despite their history with behavior. In this example, I should have either given all students a verbal warning for talking, or had all of them clip down. They should not have been different. Initially when I realized what I had done, I justified it in my mind. "The three boys that clipped down regularly defy the expectations are therefore more deserving of a "clip down". As I let the idea of stereotypes and biases sink in (from the module), I swallowed the fact that it doesn't matter about their history of defiance. Each case is a new case and I need to respond to all students without pre-judgments. Throughout the rest of the week, this was at the forefront of my mind. I consciously made the girls clip down as well, even if they are a student who traditionally "never gets in trouble." This strategy ended up being very eye opening to me. I will continue to apply it in the future.

Theme 4: Teacher Self-Awareness

More than three-quarters of teachers made some mention of issues within the theme of self-awareness, including 65% of teachers from the control group and 100% of those from the treatment group. Teachers in the control group who brought up self-awareness were limited to making mention of their own emotions in the context of the classroom, as demonstrated by the following quote:

This week, I focused my attention on a student that often times loses focus during whole group instruction and begins talking to others and moving around. After reflecting on the strategies for maintaining the calm phase, I realized that this student's acting out behavior was due to the material being presented being too difficult for the student to understand and the location of the student during our whole group instruction. After realizing this, I modified where the student sat by moving him closer to me and the material being presented. I also met with the student in a small group setting to ensure that he understood the material being presented. I was able to help him understand by teaching the concept using multiple strategies. I found it beneficial to reflect on the student's behavior in these early stages. Using the reflective strategies and modifications seemed to curb the behavior, and keep it from escalating. This was not surprising, but is something that I often forget to do. Often times when a student is acting out, I am quick to react negatively rather than reflect on why the student is acting out. This is a strategy that I would definitely like to continue implementing with this particular student, as well as a few others. I believe that this could help keep students engaged and lessen negative student behaviors such as acting out.
Teachers in the treatment group, however, nearly always paired the discussion of their emotions with recognition of their own biases. The following quote demonstrates this pattern:

I had an incident with a student that resulted in both the student and I responding in anger. When all had calmed down, I explained to the student why I was so angry so he would understand my perspective. I also discussed with him why he had responded to me the way he did. Both the student and I had the same perspective due to the fact that we both thought we had been wronged. I was surprised by this experience because the student and I had the same perspective yet we both played very different roles in this experience. What I struggled with was my reaction at first because I was in the moment and didn't stop to think about his perspective until later in that class period. I learned that I need to take a step back and evaluate the situation and not let my emotions get in the way. This strategy will help me in the future with dealing with student's behaviors. Teachers don't always know why kids do what they do, but they are motivated by many of the same things we are. I think we need to remember that they are human beings.

Additionally, 75% of the teachers in the treatment group demonstrated the ability to mention issues of race/ethnicity explicitly, while no teachers in the control group mentioned the race/ethnicity of the students in their classrooms. In addition to explicitly discussing the race of the student, treatment group participants also demonstrated evidence of changes in their behavior based on increased levels of awareness. An example from reflection journal entries of a participant assigned to the treatment group highlighting this theme is indicated by the following quote:

At the beginning of the week, I listed my top offenders and their characteristics. To apply the counter stereotype imaging strategy, I also made a list of students who have similar characteristics and that regularly follow expectations. I have one Black, male student who has received multiple referrals. As the week went on, I paid close attention to the other Black male in the class. This second student has really shown a lot of maturity and growth this school year. After being intentional about noticing his good behavior choices, I even called his mom this week to tell her how proud I am of his growth. She was beyond happy to receive the call. Hearing her excitement, made me want to find the positive things in the first boy (who gets many referrals). While harder to find, I did call his mom this week too (on Thursday) to share that he got some of his classwork assignments done and he used kind words in the morning on that day. Implementing this strategy helped me
be more intentional about finding the positive things my students are doing, even if I feel overwhelmed at times with the particular student's poor decisions.

These data suggest that the PD provided to the treatment group supported them in increasing their awareness of issues of race/ethnicity, their ability to avoid color-blindness, and their ability to adapt their behavior based on these new areas of awareness.

**Summative Statements on Qualitative Findings**

The teachers in both the control and treatment groups submitted honest and powerful reflections of their experiences with implementing the PD strategies in their classrooms. Reflection journal entries indicate that participants in both groups applied the content from the intervention thoughtfully in their classrooms. Connected to the purpose of this dissertation study, the data clearly support the conclusion that participants assigned to the treatment group demonstrated more skills in having explicit conversations about race and bias. Comments from the reflection journal entries also indicate that their heightened awareness and willingness to discuss biased attitudes influenced their relationships with their students and colleagues, as well as their practices related to classroom management. These data provide evidence of the effectiveness of the A.B.C. intervention on influencing levels of bias, at least at the awareness level, and as a result, teachers’ perspectives about discipline were influenced positively.

**Discussion**

Data from the eight weeks of intervention show mixed outcomes. Overall, analysis of control-group participant data indicated no statistically significant outcomes related to changes in pre and posttest assessment scores on the IAT, CoBRAS, DPS, or responses to student discipline. However, the patterns in the data indicate that IAT scores were slightly more biased toward Blacks from pre to posttest. Further, levels of color-
blindness among control group participants also increased from pre to posttest assessment. One hypothesis or these outcomes maybe that the strong focus on student misbehavior actually activated implicitly and explicitly held biases. However, because none of the participants assigned to the control group explicitly mentioned the race of the students in their classroom, this hypothesis cannot be fully explored without conducting follow-up interviews with control group participants. Conversely, analysis of treatment-group participant data indicated statistically significant, or approaching statistical significant changes in pre and posttest assessment scores on the CoBRAS and DPS. While no significant changes were found related to scores on the IAT, overall means measuring levels of implicit bias toward Blacks were reduced from pretest to posttest. These data provide strong support for the primary research question guiding this study. Given the positive trends observed among treatment group participants, initial indications suggest that the A.B.C. intervention was an effective approach for reducing educators’ levels of bias and influenced positive changes in their perspectives about discipline. Additionally, intervention data revealed that the perceptions among participants assigned to the control group with respect to the behavior of a Black student were highly biased and the behavior viewed more harshly. Specifically, control group participants perceived the behavior of DeShawn, the Black student identified in the case vignette, as severe, a hindrance to instruction, and warranting suspension. In contrast, treatment group participants viewed DeShawn’s behavior as indicative of a pattern. However, as previously mentioned, the recognition of a pattern of behavior could be viewed as a skill that educators need to intervene quickly and provide a student the supports he may need for success.
These data provide evidence related to the research question focused on differences in participants’ perspectives on the discipline of students. Here, the data support the conclusion that participation in the A.B.C. intervention supported less biased perspectives about student discipline. Finally, qualitative data collected through reflection journals indicated that the A.B.C. intervention supported participants assigned to the treatment group in increasing their awareness of and comfort with discussions about race and bias. While these changes are important, they do not provide enough data to support conclusions related to the research question focused on changes in participants’ levels of motivation and dissonance.

Given these results, some important lessons for educators and researchers are illuminated from the data.

1. Teachers’ engagement in explicit de-biasing strategies can support increased awareness of biases. This increased awareness can impact levels of implicit and explicit bias positively.

2. Increased awareness of personal biases also appears to support deeper levels of self-reflection. This is a critical aspect related to influencing one’s motivation to address biased beliefs.

3. Jointly, changes in awareness of bias and increased self-reflection, supports the engagement of explicit conversations about race and bias. Increased dialogue about these taboo topics can facilitate the reduction of biased beliefs.

4. Use of brief de-biasing activities, on an ongoing basis, can be practically applied in the K-12 setting. Barriers of time and access are minimized using
online modules and this modality can aid in autonomous engagement with the content.

5. The implementation of de-biasing strategies can influence teachers’ interactions with students and their families in positive ways. Further, engagement in de-biasing PD can alter negative perspectives about student behavior and facilitate pragmatic approaches to discipline.

6. Exposure to PD focused on classroom management alone is not likely to influence disproportionate discipline outcomes for Black students. In fact, it may unintentionally activate biased beliefs.

Together, the quantitative and qualitative results offer preliminary support for the A.B.C. intervention, a novel approach for addressing discipline disparities for Black students. To validate the outcomes of the pilot study conducted as part of this dissertation, educational leaders and policy makers should explore this approach further by collecting additional data from an increased number of educators who hold various roles in the school setting. They should have differing levels of skill related to behavior management, and varying levels of motivation and interest in engaging in discussions about the topic of racial bias to provide evidence of widespread utility of the A.B.C. intervention in K-12 schools.

**Study Limitations**

While the intervention illuminated several significant findings, one must remain mindful of the limitations associated with the study. The most significant limitation related to the number of teachers willing to participate. Despite efforts to increase teacher’s motivation to participate, such as the use of a monetary incentive, the nine
teachers who completed the intervention represent a small sample of teachers within CSD. Additionally, it is plausible that the characteristics of this sample of teachers are atypical. It is likely that the participating teachers were highly motivated to participate for personal reasons that were not captured as part of the data collection. However, the willingness of teachers to dedicate eight weeks to implementing tasks that added to their responsibilities, speaks to their motivation to develop skills in the area of classroom management and in the case of treatment group participants, their dedication to equitable outcomes from all students.

The small sample size influences the power of the statistical analyses. Using the G*Power 3.1 software program to determine the sample size that would be needed to produce the same effects previously established from extant research for the IAT and CoBRAS, the current sample size was markedly insufficient. Results of the power analysis yielded data that indicated a total sample size of 788 participants would be needed to yield a .2 effect size with an alpha value of .05 and 80% power for the IAT. Further, a total sample size of 68 participants would have been required to yield a .7 effect size with an alpha value of .05 and 80% power for the CoBRAS. Given the small sample, the potential for Type-II errors in data analysis increased. This means statistically insignificant results might actually mask significant differences between control and treatment participants.

A second limitation that can be identified is related to the design. The use of the randomized control and treatment group design offered the most protection from threats to validity and allowed for direct comparisons of the influence of the de-biasing strategies presented to treatment group participants. However, incorporating classroom
management strategies along with the strategies focused on bias reduction would have strengthened the claims that could be associated with the outcomes observed. In other words, removing the target independent variable, in this case exposure to de-biasing strategies, while keeping all other components between control and treatment group participants would have been ideal. Additionally, ongoing coaching was a component not included in the current design but it is likely that having face-to-face conversations could have strengthened the influence and application of the interventions. Further, engaging in conversations with participants about their reflection journals would have allowed me to confront some of the deficit perspectives about student’s living in poverty as well as challenge the criminalized language (e.g., repeat offender) that participants’ sometimes used to describe student’s behavior.

Finally, a third limitation related to the construct validity of one of the intervention instruments namely, the Likert scale questions assessing levels of motivation and dissonance among treat group participants. Construct validity refers to the degree to which a test measures what it is designed to measure (Shadish et al., 2002). Given the importance of these variables in sparking changes in implicit bias as highlighted by Devine et al. (2012), the development of these questions could have been revised. While I was intentional about the development of the questions, no tests of construct validity were conducted. As a result, the questions may not have been sensitive enough to assess changes in levels of dissonance and motivation. This limitation represented a weakness in the ability to interpret the data accurately, and thus should be addressed in future iterations of the intervention.
Opportunities for Future Research

Given the initial results of the intervention and the study limitations noted in the previous section, additional research related to the impact of implicit bias on teachers’ responses to discipline is warranted. As a first step, this intervention should be replicated with improvements in instrumentation and module content provided to treatment group participants. These changes, along with more robust levels of participation would clarify the impact of the intervention.

Further, as a next step, measuring the impact that reductions in levels of bias have on real-time student discipline data is a crucial next step. Future researchers could strengthen the support for implementing interventions like the A.B.C. intervention if data analysis could demonstrate changes in actual school level data. To accomplish this, school leaders could implement the intervention with teachers in specific grade levels or departments and monitor changes in discipline referrals across the intervention period. Alternatively, as an alternative, comparisons of schools with similar demographics and discipline trends would allow researchers to describe the influence on discipline outcomes when staff from one school engages in the intervention and the comparison school serves as the control group. No matter the approach used, data from the everyday experiences of teachers and students is a significant area of need in the research literature.

Further, the A.B.C. intervention described in this dissertation focused on five specific de-biasing strategies. Exploring the influence of additional strategies for reducing levels of bias is critical. The research on effective de-biasing strategies continues to emerge (Lai et al., 2014). Additional research is needed to examine if
various de-biasing strategies elicit stronger levels of changes in implicit and explicit bias or if practitioners indicate preferences de-biasing strategies over others.

**Conclusion**

For more than half a century, educational leaders have worked to describe and identify solutions to the disparities seen in the educational outcomes for Black students. Given all that people know quantitatively about these disparate outcomes, a logical question to ponder included, “Why aren’t we fixing the problem?” and, “Might there be driving factors that educators have not explored thoroughly as we all seek to find solutions?” The intention this dissertation study was to explore the ways in which explicit and implicit biases may impact discipline outcomes for Black students. By doing so, my goal was to provide guidance to educational leaders and policy makers that would position them to move beyond the surface level remedies traditionally implemented to address the problem and delve into deeper waters to address the root cause of this persistent issue effecting the educational success of Black students.

Based on results of the intervention implemented as a part of this dissertation, I call on educational leaders to consider policy changes regarding the type of professional development provided to teachers, particularly the PD provided to address discipline issues. Given the results of the recently conducted intervention and knowledge of the power dynamics that commonly exists within school districts across the United States, a strategic plan for the development of new policies related to professional development for teachers and administrators is proposed. The following actions are recommended:

1. School board members should establish district policies requiring PD focused on culture, bias, and classroom management for all certified staff annually.
This action demonstrates a serious and ongoing commitment to examine issues of equity and ensure teachers have adequate levels of competency related to cultural knowledge and behavior management.

2. District and building level administrators should engage in professional development regarding the influence of culture on learning and behavior so that they have the necessary knowledge and skill levels required to lead efforts focused on equity across the district. Subsequently, administrative leaders must communicate high expectations and provide support for practitioners as they implement culturally responsive practices to meet the needs of all students.

3. Central office and building level leaders should review existing approaches for professional development for teachers and establish universal PD time for all buildings no less than quarterly, which must explicitly focus on color-conscious PD.

4. District leaders should collect and analyze discipline data using a cultural lens to facilitate data based decisions to support equitable outcomes for all students.

The intention of the policy changes recommended above is to address the impact that both explicit and implicit biases have on educational outcomes for Black students. By doing so, educational leaders can begin to address the root causes of disparate outcomes and establish practices that lead to positive outcomes that can be sustained.

Accomplishing this task will require key stakeholders in school districts with various levels of power to be unified in their advocacy for what some may deem a risky
topic of discussion. More to the point, the most challenging aspect of the proposed recommendations is the willingness of educational leaders and practitioners to engage in difficult conversations about systemic racial inequities and bias. This is a critical area to explore as educators seek to find permanent solutions to the problem of disparate outcomes.

Given the U.S. history conflicts regarding race relations, especially among Black and White citizens, this task will no doubt be challenging. However, focusing on changing the practices of educators without addressing the explicit and implicit biases that they hold and engage in open conversations about race might prove fruitless, as has been the case to date. One might also ask, “Might the lack of attention to these factors be the reason that long-term solutions to educational gaps between Black and White students have evaded educators?” As Hobson (2014) powerfully stated in her 2014 TED Talk, “We cannot afford to be color blind. We have to be *color brave* [emphasis added]. We have to be willing, as teachers …to have proactive conversations about race with honesty and understanding and courage” (4:50).

Based on the results of the intervention completed as part of this dissertation, it is reasonable to suggest that effective remediation to the concern of inequitable outcomes for Black students requires the merger of knowledge of best practices, such as classroom management, with explicit training and staff development in the area of cultural competency. This merger must explicitly address unconscious and conscious biases. Corrective action and school improvement plans that only focus on developing one side of this theoretical Venn diagram miss the mark, in my opinion. School leadership facing the issue of disparate outcomes of Black students will find success and may be the place
where crucial and long-awaited solutions to the problem of disparate discipline gaps for Black students are discovered. The A.B.C. intervention moves educators closer to that place.
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doi:10.3102/0013189X09357621


doi:10.1023/A:1023280117904


Dear CSD Teachers and Administrators:

I hope this email finds you all well. First, I want to commend each of you for your continued efforts to support the implementation of CR-PBIS at your school. I love seeing all of the great work that you are doing on Social Media and hearing about your progress from your colleagues across the district. Keep up the great work! It’s paying off!

I am emailing today to ask for your help. As some of you know, I am working to complete my Doctoral work at Johns Hopkins University and need your help with some data collection.

My dissertation is focused on understanding factors that contribute to the disproportionality of African American students in school discipline. To understand more fully the nature of the problem, I am looking for teachers and administrators to volunteer to complete a brief online survey. As an incentive, teachers and administrators completing the survey will receive a $20 VISA gift card.

The survey should take about 30 minutes to complete and your responses will be confidential. Since I know you have so many responsibilities at school, I hope that you will consider completing the survey in a more relaxed setting (ex: at home before or after work or on the weekend).

If you agree, I will be in touch with further information.

Thanks for your consideration!

Renae
APPENDIX B. JOHNS HOPKINS UNIVERSITY NEEDS ASSESSMENT

INFORMED CONSENT

Homewood Institutional Review Board (HIRB)

Title: Educators Attitudes Related to School Discipline

Principal Investigators: Christine Eith, Ph.D;
Student Investigator: Renae Azziz Ed.S., NCSP

Date: March 21, 2015

PURPOSE OF RESEARCH STUDY:

The purpose of this research study is to examine educators’ thoughts, attitudes, preferences, and beliefs and how these factors influence student discipline.

We anticipate that approximately 100 participants will participate in this study.

PROCEDURES:

Participants will be asked to complete 2 tasks as a part of this study. Both tasks will be completed online. In the first task, participants will be asked to sort words and images into categories as quickly as possible. In the second task, participants will respond to a series of questions based on Likert scale ratings.

Time required: It is estimated that the total time to complete both tasks will be approximately 30 minutes.

RISKS/DISCOMFORTS:

There are no anticipated risks to study participants.
**BENEFITS:**

The data collected through this study will provide a better understanding of educator’s attitudes on disciplinary practices. The information obtained may help us understand more about the how and why students are disciplined.

**VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:**

Your participation in this study is entirely voluntary. You choose whether to participate and will indicate below whether you agree to take part in the study. If you decide not to participate, or at a later time chooses not to participate, there are no penalties. You can stop participation in the study at any time, without any penalty. If you want to withdraw from the study, or want to stop participating, you are free to do so at any time during this data collection.

**CONFIDENTIALITY:**

Surveys will be collected in electronically. The study website includes SSL security for data exchange, secure data storage, and supervision by the technical staff in case of hardware malfunction or failure.

For your protection, you will be assigned a participant number so that no identifying information will be collected during the completion of the tasks associated with this study. All records identifying you will be kept confidential to the extent possible by law and stored separately from your responses. The records from your participation maybe reviewed by people responsible for making sure that research is done properly, including
members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the office for Human Research Protections. (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

All measures will be examined by the Principal investigator and research affiliates only (including those entities described above). No identifiable information will be included in any reports of the research published. Only group data will be included in publication; no individual achievement data will ever be published.

**COMPENSATION:**
As a result of your completion of both tasks related to this project, you will receive a $20 VISA gift card. Gift cards will be sent by email no later than May 28, 2015. If you do not complete all tasks associated with the study, you will be deemed ineligible for the gift certificate.

**IF YOU HAVE QUESTIONS OR CONCERNS:**
You can ask questions about this research study at any time during the study by contacting Renae Azziz, at 317-449-9450, or by email at razziz1@jhu.edu or you can contact my Doctoral Program Director, Dr. Christine Eith, at 410-516-0640 or by email at ceith@jhu.edu If you have questions about your rights as a research participant or feel
that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

**SIGNATURES**

Your signature below means that you understand the information in this consent form.

Your signature also means that you agree to participate in the study. By signing this consent form, you have not waived any legal rights you otherwise would have as a participant in a research study.

______________________________________________________________________
Participant's Signature

_______________________________________________________________________
Printed Name

Email Address

Signature of Person Obtaining Consent

Date

(Investigator or HIRB Approved Designee)
### APPENDIX C. SAMPLE DISCIPLINE FILE

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Grade</th>
<th>Referring Teacher</th>
<th>Date of Incident</th>
<th>Location of Incident</th>
<th>Type of Behavior Infraction</th>
<th>Description in objection</th>
<th>Others involved</th>
<th>Free or Reduced Lunch Status</th>
<th>Special Education</th>
<th>Administrative Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Student M</td>
<td>9/2/13 Hispanic or Latino (of 2)</td>
<td>Sample Teacher</td>
<td>9/12/13</td>
<td>10:00-11:00 AM</td>
<td>Cafeteria</td>
<td>Suspended</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>STR SHORT TERM REMOVAL</td>
</tr>
<tr>
<td>Sample Student M</td>
<td>9/12/13 White</td>
<td>Sample Teacher</td>
<td>9/12/13</td>
<td>1:00-2:00 PM</td>
<td>Hallway</td>
<td>Harassment</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>STR SHORT TERM</td>
</tr>
<tr>
<td>Sample Student M</td>
<td>5/2/14 White</td>
<td>Sample Teacher</td>
<td>5/2/14</td>
<td>10:00-11:00 AM</td>
<td>Cafeteria</td>
<td>Harassment</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>STR SHORT TERM</td>
</tr>
<tr>
<td>Sample Student M</td>
<td>5/2/14 White</td>
<td>Sample Teacher</td>
<td>5/2/14</td>
<td>11:00-12:00 AM</td>
<td>Classroom</td>
<td>Harassment</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>STR SHORT TERM</td>
</tr>
<tr>
<td>Sample Student M</td>
<td>5/2/14 White</td>
<td>Sample Teacher</td>
<td>5/2/14</td>
<td>12:00-1:00 PM</td>
<td>Classroom</td>
<td>Harassment</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>STR SHORT TERM</td>
</tr>
<tr>
<td>Sample Student M</td>
<td>5/2/14 White</td>
<td>Sample Teacher</td>
<td>5/2/14</td>
<td>1:00-2:00 PM</td>
<td>Classroom</td>
<td>Harassment</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>STR SHORT TERM</td>
</tr>
<tr>
<td>Sample Student M</td>
<td>5/2/14 White</td>
<td>Sample Teacher</td>
<td>5/2/14</td>
<td>2:00-3:00 PM</td>
<td>Classroom</td>
<td>Harassment</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>STR SHORT TERM</td>
</tr>
<tr>
<td>Sample Student M</td>
<td>5/2/14 White</td>
<td>Sample Teacher</td>
<td>5/2/14</td>
<td>3:00-4:00 PM</td>
<td>Classroom</td>
<td>Harassment</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>STR SHORT TERM</td>
</tr>
</tbody>
</table>

Due to formatting, variables in the file are presented in small text in above graphic, a complete list of variables included are as follows:

1. Student Name
2. Gender
3. Data Entry Date Stamp
4. Student Ethnicity
5. Grade Level
6. Referring Teacher
7. Date of Incident
8. Time of the Incident
9. Location of Incident
10. Type of Behavior
11. Motivation
12. Description of Incident
13. Others involved
14. Administrative Action
15. Free or Reduced Lunch Status
16. Special Education
17. English Language Learner

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APPENDIX D. DEMOGRAPHIC DATA

Demographic Data

1. Position:
   - General Education Teacher
   - Special Education Teacher
   - Instructional Coach/Interventionist
   - Administrator

2. Years in education:
   - Less than 5 years
   - 6-9 years
   - 10 or more years

3. Gender:
   - Male
   - Female

4. Ethnicity:
   - American Indian
   - Asian
   - African American
   - Hawaiian/Pacific Islander
   - Hispanic
   - White
   - Multiracial

5. How many office discipline referrals have you written this year?
   - None
   - 1-10
   - 11-20
   - 21-30
   - 31-40
   - 41 or more
APPENDIX E. DISCIPLINARY PRACTICES SURVEY

Please choose the response that most closely reflects your opinion by assigning a rating of 1-6:

1  2  3  4  5  6
Strongly Disagree  Strongly Agree

• Suspension makes students less likely to misbehave in the future.

• The primary responsibility for teaching children how to behave appropriately in school belongs to parents.

• I feel that getting to know students individually is an important part of discipline.

• Suspensions and expulsions hurt students by removing them from academic learning time.

• I believe that teachers at my school are aware of school disciplinary policies.

• Repeat offenders should receive more severe disciplinary consequences.

• Teachers ought to be able to manage the majority of students’ misbehavior in their classroom.

• I believe students at my school are aware of school disciplinary policies.

• Students should receive some recognition or reward for appropriate behavior.

• Teachers at this school have adequate in-service training in effective classroom management practices.

• Teachers at this school were for the most part adequately trained by their teacher-training program to handle problems of misbehavior and discipline.

• Out-of-school suspension is a necessary tool for maintaining school order.

• Suspension and expulsion do not really solve discipline problems.

• Schools must take some responsibility for teaching students how to get along and behave appropriately in school.
• The majority of this school’s discipline problems could be solved if we could only remove the most persistent troublemakers.

• Disadvantaged students require a different approach to discipline than other students.

• Disciplinary policies are strictly enforced in my school.

• I have noticed that time spent in developing and implementing preventive programs pays off in terms of decreased disruption and disciplinary incidents.

• Out-of-school suspension is used at this school only as a last resort.

• Students from different ethnic backgrounds have different emotional and behavioral needs.

• Please rank order the following statements from 1-6: 1 being the most important purpose and 6 being least important.

• The purposes of discipline are to:
  ___Send a message to other students about acceptable behavior
  ___Teach appropriate skills to the disciplined student
  ___Allow a “cooling off” period for the student or school
  ___Remove disruptive students to maintain the order of the school
  ___Increase students’ self-control
  ___Protect the learning environment for other students
APPENDIX F. CoBRAS

**Directions.** Below is a set of questions that deal with social issues in the United States (U.S.). Using the 6-point scale, please give your honest rating about the degree to which you personally agree or disagree with each statement. Please be as open and honest as you can; there are no right or wrong answers. Record your response to the left of each item.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. ___ Everyone who works hard, no matter what race they are, has an equal chance to become rich.

2. ___ Race plays a major role in the type of social services (such as type of health care or day care) that people receive in the U.S.

3. ___ It is important that people begin to think of themselves as American and not African American, Mexican American or Italian American.

4. ___ Due to racial discrimination, programs such as affirmative action are necessary to help create equality.

5. ___ Racism is a major problem in the U.S.

6. ___ Race is very important in determining who is successful and who is not.

7. ___ Racism may have been a problem in the past, but it is not an important problem today.

8. ___ Racial and ethnic minorities do not have the same opportunities as White people in the U.S.

9. ___ White people in the U.S. are discriminated against because of the color their skin.

10. ___ Talking about racial issues causes unnecessary tension.

11. ___ It is important for political leaders to talk about racism to help work through or solve society’s problems.

12. ___ White people in the U.S. have certain advantages because of the color of their skin.

13. ___ Immigrants should try to fit into the culture and adopt the values of the U.S.

14. ___ English should be the only official language in the U.S.
15. White people are more to blame for racial discrimination in the U.S. than racial and ethnic minorities.

16. Social policies, such as affirmative action, discriminate unfairly against White people.

17. It is important for public schools to teach about the history and contributions of racial and ethnic minorities.

18. Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin.

19. Racial problems in the U.S. are rare, isolated situations.

20. Race plays an important role in who gets sent to prison.
APPENDIX G. IMPLICIT ASSOCIATION TEST

**Implicit Association Test (IAT)**

Participants complete IAT online. Participants will be asked to sort words and images into categories as quickly as possible.

In this task, participants will be presented with a set of words or images to classify into groups. This task requires that participants to classify items as quickly as they can while making as few mistakes as possible. Going too slow or making too many mistakes will result in an uninterpretable score. This task will take about 10 minutes.

The following is a list of category labels and the items that belong to each of those categories.

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Good</strong></td>
<td>Joy, Love, Peace, Wonderful, Pleasure, Glorious, Laughter, Happy</td>
</tr>
<tr>
<td><strong>Bad</strong></td>
<td>Agony, Terrible, Horrible, Nasty, Evil, Awful, Failure, Hurt</td>
</tr>
<tr>
<td>African American</td>
<td>faces of African American people</td>
</tr>
<tr>
<td>European American</td>
<td>faces of European American people</td>
</tr>
</tbody>
</table>
APPENDIX H. SURVEY QUESTIONS FROM CoBRAS AND DPS

Survey Questions from
Color Blindness Racial Attitudes Skills (CoBRAS) and Disciplinary Practices Survey (DPS)

The next set of questions asks you to respond to questions regarding your beliefs about disciplinary practices and the influence of race in society. There are no correct or incorrect answers and your responses are confidential. This task will take about 10 minutes.

Please choose the response that most closely reflects your opinion by assigning a rating of 1-6:

1 2 3 4 5 6

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

1. Suspension makes students less likely to misbehave in the future.

2. Everyone who works hard, no matter what race they are, has an equal chance to become rich.

3. I believe that suspension and expulsion allow students time away from school that encourages them to think about their behavior.

4. **Race plays a major role in the type of social services (such as type of health care or day care) that people receive in the U.S.**

5. The primary responsibility for teaching children how to behave appropriately in school belongs to parents.

6. It is important that people begin to think of themselves as American and not African American, Mexican American or Italian American.

7. My school keeps detailed records regarding student suspension and expulsion.
8. Due to racial discrimination, programs such as affirmative action are necessary to help create equality.

9. I feel that getting to know students individually is an important part of discipline.

10. Racism is a major problem in the U.S.

11. Suspensions and expulsions hurt students by removing them from academic learning time.

12. Race is very important in determining who is successful and who is not.

13. I believe prevention programs can reduce the number of disruptive behaviors in school.

14. Racism may have been a problem in the past, but it is not an important problem today.

15. I believe that teachers at my school are aware of school disciplinary policies.

16. Racial and ethnic minorities do not have the same opportunities as White people in the U.S.

17. Repeat offenders should receive more severe disciplinary consequences.

18. White people in the U.S. are discriminated against because of the color their skin.

19. Teachers should be expected to manage the majority of students’ misbehavior in their classroom.

20. Talking about racial issues causes unnecessary tension.

21. I believe students at my school are aware of school disciplinary policies.

22. It is important for political leaders to talk about racism to help work through or solve society’s problems.

23. Students should receive some recognition or reward for appropriate behavior.

24. White people in the U.S. have certain advantages because of the color of their skin.
25. Teachers at this school have adequate in-service training in effective classroom management practices.

26. Immigrants should try to fit into the culture and adopt the values of the U.S.

27. Teachers at this school were for the most part adequately trained by their teacher-training program to handle problems of misbehavior and discipline.

28. English should be the only official language in the U.S.

29. Out-of-school suspension is a necessary tool for maintaining school order.

30. **White people are more to blame for racial discrimination in the U.S. than racial and ethnic minorities.**

31. Suspension and expulsion do not really solve discipline problems.

32. Social policies, such as affirmative action, discriminate unfairly against White people.

33. Schools must take some responsibility for teaching students how to get along and behave appropriately in school.

34. **It is important for public schools to teach about the history and contributions of racial and ethnic minorities.**

35. Violence is getting worse in my school.

36. Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin.

37. Overall, I believe this is a safe school.

38. Racial problems in the U.S. are rare, isolated situations.

39. It is possible to maintain school order with only a minimal use of school suspension and expulsion.

40. **Race plays an important role in who gets sent to prison.**
41. Prevention programs can reduce the need for suspension and expulsion.

42. It is sad but true that, to meet increasingly high standards of academic accountability, some students will probably have to be removed from school.

43. Compared with the effects of family and society, schools cannot make much of a difference in children’s lives.

44. Prevention programs would be a useful addition at our school, but there is simply not enough time in the day.

45. The majority of this school’s discipline problems could be solved if we could only remove the most persistent troublemakers.

46. Certain students are not gaining anything from school and disrupt the learning environment for others. In such a case, the use of suspension and expulsion is justified to preserve the learning environment for students who wish to learn.

47. I need additional resources to increase my school’s capacity to reduce and prevent troublesome behaviors.

48. Disadvantaged students require a different approach to discipline than other students.

49. Disciplinary policies are strictly enforced in my school.

50. I have noticed that time spent in developing and implementing preventive programs pays off in terms of decreased disruption and disciplinary incidents.

51. Out-of-school suspension is used at this school only as a last resort.

52. Students from different ethnic backgrounds have different emotional and behavioral needs.

53. Disciplining disruptive students is time consuming, and may interfere with other important functions in the school.
54. Please rank order the following statements from 1-6: 1 being the most important purpose and 6 being least important.

**The purposes of discipline are to:**

- Send a message to other students about acceptable behavior
- Teach appropriate skills to the disciplined student
- Allow a “cooling off” period for the student or school
- Remove disruptive students to maintain the order of the school
- Increase students’ self-control
- Protect the learning environment for other students

---

**Debrief/Thank You Screen**

Thank you for your responses. Your responses to the tasks in this survey will increase researchers understanding of the role that educators’ attitudes and beliefs have on student discipline outcomes. You will receive your gift card by email no later than May 28, 2015.

**Survey Questions**

1. CoBRAS Factor 1 Score: 2, 4, 12, 16, 24, 30, 40
2. CoBRAS Factor 2 Score: 6, 8, 18, 26, 28, 32, 36
3. CoBRAS Factor 3 Score: 10, 14, 20, 22, 34, 38

**NOTE:** The bolded questions are reversed score (such that 6 = 1, 5 = 2, 4 = 3, 3 = 4, 2 = 5, 1 = 6): item #2, 4, 5, 6, 8, 11, 12, 15, 17, 20
4. DPS Prev_Score: 9,11,13,25,31,33,39,41,48
5. DPS Susp_Score: 5,17,19,29,35,42,43,44,45,46,47,52,53
6. DPS Prag_Score: 1,3,7,15,21,25,27,37,49
APPENDIX I. INFORMED CONSENT

Johns Hopkins University
Homewood Institutional Review Board (HIRB)

Informed Consent
Title: Educators Attitudes Related to School Discipline
Principal Investigator: Christine Eith, Ph.D
Student Investigator: Renae Azziz, Ed.S., NCSP
Date: September 1, 2016

PURPOSE OF RESEARCH STUDY:
The purpose of this research study is to examine the ways in which educators’ thoughts, attitudes, preferences, and beliefs influence student discipline.
We anticipate that approximately 25 classroom teachers will participate in this study. The maximum number of participants accepted will be capped at 50.

PROCEDURES:
Participants will be asked to complete the following tasks:
Online pre and post test assessments focused on attitudes and beliefs (during weeks 1 and 8)
Eight weeks of online learning modules addressing attitudes and student discipline,
Maintain a reflective journal to document learning experiences.

Time required: It is estimated that the total time to complete these tasks will be approximately 30-45 minutes per week.

RISKS/DISCOMFORTS:
There are no anticipated risks to study participants.

BENEFITS:
The data collected through this study will provide a better understanding of educator’s attitudes on disciplinary practices. The information obtained may help us understand more about the how and why students are disciplined.

VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:
Your participation in this study is entirely voluntary. You choose whether to participate and will indicate below whether you agree to take part in the study. If you decide not to participate, or at a later time choose not to participate, there are no penalties. You can stop participation in the study at any time, without any penalty. If you want to withdraw from the study, or want to stop participating, you are free to do so at any time during this data collection.

CONFIDENTIALITY:
All data will be collected electronically through a dedicated website. Participants will access the a password protected website to complete the assessments and online modules. The study website includes Secure Sockets Layer (SSL) security for data exchange, secure data storage, and supervision by the technical staff employed by the website host in case of hardware malfunction or failure.

For your protection, you will be assigned a participant number so that no identifying information will be
collected during the completion of the tasks associated with this study. All records identifying you will be kept confidential to the extent possible by law and stored separately from your responses. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the office for Human Research Protections. (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

No identifiable information will be included in any reports of the research published.

**COMPENSATION:**
As a result of your completion of all required tasks related to this project, you will receive a $100 VISA gift card. Gift cards will be emailed to participants who qualify within 1 week of completion of the study.

**IF YOU HAVE QUESTIONS OR CONCERNS:**
You can ask questions about this research study at any time during the study by contacting Renae Azziz, at 317-449-9450, or by email at razziz1@jhu.edu or Dr. Christine Eith, at 410-516-0640 or by email at ceith@jhu.edu

If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

**CONSENT**
By completing this survey or questionnaire, you are consenting to be in this research study. Your participation is voluntary and you can stop at any time.
APPENDIX J. PERMISSION FOR USING DEBIASING STRATEGIES

From: Renae Azziz razziz1@jh.edu
Subject: Re: Protocol request
Date: April 21, 2016 at 6:47 AM
To: PATRICIA G DEVINE pgdevine@wisc.edu

Many thanks, Dr. Devine. The screen shots are helpful.

I hope you’ll be open to further questions as I continue with my plans.

Best,
Ra

Renae Azziz Ed.S.NCSP
Doctoral Student: Entrepreneurial Leadership in Education
Joins Hopkins University School of Education
Email: razziz1@jh.edu

On Apr 20, 2016, at 6:16 PM, PATRICIA G DEVINE <pgdevine@wisc.edu> wrote:

Hi Renae,

You work sounds very interesting. I'm glad that you have found our work useful in developing your approach to addressing bias! The strategies are all described in the published article but I have attached the screen shots that the participants saw as they worked through the interactive slideshow. I hope that you find materials helpful.

Let me know if you have any other questions. Good luck with your work!

Best wishes,

Trish Devine

<Screenzaps of training program.docx>

On Apr 20, 2016, at 8:30 AM, Renae Azziz <razziz1@jhu.edu> wrote:

Dr. Devine:

I am doctoral student at the Johns Hopkins School of Education. For my dissertation, I am exploring the role of Implicit Bias on disparate disciplinary outcomes for Black students. As part of my study, I am developing a professional development (PD) intervention for K-12 teachers designed to reduce levels of implicit bias and color-blind racial ideology.

I am writing to request access to and use of the 5 strategies as described in the 2012 article. Long-term reduction in implicit race bias: A prejudice habit-breaking intervention for my study. Given your numerous publications, the complete reference for the article is:


My proposed intervention seeks to first increase teacher's awareness about their own levels of bias (using the IAT and CoBRAI) and school level disparities in order to activate cognitive dissonance. With increased levels of dissonance, study participants will then engage in eight weeks of PD designed to increase their motivation to change their biased thoughts and actions. The proposed intervention will include the use of video based modules that educators would complete across the intervention timeframe of 6 weeks. Each module will include a narrated presentation introducing specific content related to culturally responsive practice, an application activity focused specifically on a particular debiasing strategy, and reflection journal activities to facilitate changes in thinking and conscious awareness of bias triggers. Before and after the 8 weeks of PD, participants will respond to student vignettes focused on disciplines to provide an indicator of their perspectives on responses to misbehavior in the classroom setting.

I have relied heavily on your research as I have developed the methodology for this study. It would be an honor to use the protocols applied in your study in an attempt to extend these findings to the K-12 setting.

I would be glad to discuss my needs further and answer any questions you may have.

Thank you for your consideration.
APPENDIX K. PERMISSION FOR USE OF VIGNETTES

From: Jason Okonofua okonofua@gmail.com
Subject: Re: Student Vignette request
Date: April 22, 2016 at 5:39 PM
To: Renae Azziz razziz1@jhu.edu

Awesome! Yes, we thought very carefully about the design. And in case you want to mention it, the vignettes are from actual office referral forms from a middle school in California.

As you likely know, expect the race effect to emerge after the second incident (and we randomly counter-balanced the order of incidents).

Please keep me updated on your progress!

Best,

On Fri, Apr 22, 2016 at 5:20 PM, Renae Azziz <razziz1@jhu.edu> wrote:
Thanks for your response. I did find them in the supplemental document I just wanted to ask permission to use them. :-) I know you all thought carefully about their design.

Regards,

RA
Renae Azziz
Doctoral Student in Entrepreneurial Leadership in Education
Johns Hopkins School of Education
Email: razziz1@jhu.edu

On Apr 22, 2016 at 7:40 PM, Jason Okonofua <okonofua@gmail.com> wrote:
Hi Renae,

I hope all is well. Your project sounds great! Were you not able to find the vignettes in the supplemental materials for the article? If not, I can put them in a document for you.

All the best,

On Wed, Apr 20, 2016 at 8:47 AM, Renae Azziz <razziz1@jhu.edu> wrote:
Dr. Okonofua:

Congratulations on completing your dissertation. I am doctoral student at the Johns Hopkins School of Education. For my dissertation, I am exploring the role of Implicit Bias on disparate disciplinary outcomes for Black students. As part of my study, I am developing a professional development (PD) intervention for K-12 teachers designed to reduce levels of implicit bias and color-blind racial ideology.

I am writing to request the use of the student vignettes as described in the 2015 article, Two Strikes: Race and the Disciplining of Young Students.

My proposed intervention seeks to first increase teacher’s awareness about their own levels of bias (using the IAT and CoBRAS) and school level disparities in order to activate cognitive dissonance. With increased levels of dissonance, study participants will then engage in eight weeks of PD designed to increase their motivation to change their biased thoughts and actions. The proposed intervention will include the use of video based modules that educators would complete across the intervention timeframe of 8 weeks. Each module will include a narrated presentation introducing specific content related to culturally responsive practices, an application activity focused specifically on a particular delinking strategy and reflection journal activities to facilitate changes in thinking and conscious awareness of bias triggers.

Before and after the 8 weeks of PD, participants will respond to student vignettes focused on discipline to provide an indicator of their perspectives on responses to misbehavior in the classroom setting.

I have relied heavily on your research as I have developed the methodology for this study. It would be an honor to use the student vignettes used in your study in an attempt to extend your initial findings in the K-12 setting.

I would be glad to discuss my needs further and answer any questions you may have.

Thank you for your consideration.

Regards,

Renae

Renae Azziz
Doctoral Student in Entrepreneurial Leadership in Education
APPENDIX L. INTERVENTION INTRODUCTORY EMAIL

Intervention Introductory Email

Dear [Name],

Thank you so very much for your willingness to support my research. The purpose of this research study is to examine educators’ attitudes and how these factors influence student discipline. This is an 8-week study. The timeline below indicates the activities you can expect across the 8 weeks:

- Week 1 (9/6-9/11): Pre Assessments
- Week 2 (9/12-9/18): Overview of the 8 week PD format; Clarifying Expectations
- Week 3(9/19-9/25): Completion of Online Module 1
- Week 4(9/26-10/2): Completion of Online Module 2
- Week 5(10/3-10/9): Completion of Online Module 3
- Week 6(10/10-10/16): Completion of Online Module 4
- Week 7(10/17-10/23): Completion of Online Module 5
- Week 8(10/24-10/28): Post Assessments
- 10/31: $100 VISA Gift cards awarded to those who complete all activities across the 8 weeks.

Your first task is to complete a PreAssessment. You are asked to complete 2 tasks. In the first task, you will be asked to sort words and images into categories as quickly as possible. In the second task, you will respond to a series of questions based on Likert scale ratings. There are no correct or incorrect answers and you should plan to dedicate approximately 30 minutes to complete the tasks. You must complete these at the same time; you won’t be able start the tasks and come back to them later so, please only begin when you have 30 minutes to complete the tasks in their entirety. **These tasks must be completed no later than Sunday 9/11 at 5PM EST**

To ensure confidentiality, your name will never be used at any point in this study. You will always use an assigned participant code as you make your responses. Please use the participant code listed below once you access the Study website.

Details are as follows:

**Website address:**

**6 Digit Participant Code:**

Again, I appreciate you!

If you have questions, please contact me at razziz1@jhu.edu or by phone at 317-449-9450.

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## APPENDIX M. FIDELITY MATRIX

<table>
<thead>
<tr>
<th>Variable</th>
<th>Data Source(s)</th>
<th>Data Collection Tool</th>
<th>Frequency of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of Bias Assessments</td>
<td>Participants</td>
<td>CoBRAS</td>
<td>Week 1</td>
</tr>
<tr>
<td>Participation in Online PD Modules</td>
<td>Intervention Website</td>
<td>IAT</td>
<td>Week 8</td>
</tr>
<tr>
<td>Engagement in Debiasing Activities</td>
<td>Participant Responses</td>
<td>Log-In Tracking Log</td>
<td>Weekly</td>
</tr>
<tr>
<td>Perspectives on Discipline</td>
<td>Participants</td>
<td>Reflective Journal</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DPS</td>
<td>Week 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discipline Vignettes</td>
<td>Week 8</td>
</tr>
</tbody>
</table>
APPENDIX N. LOGIC MODEL

A Logic Model representing the inputs, activities, outputs, and anticipated outcomes of an intervention designed to influence levels of bias in teachers.

**Situation:**
Black students are disproportionately disciplined in school. When controlling for student characteristics such as gender, income level, and type of behavioral offense, student race remains a strong predictor for referrals to the office and suspension. This increases the risk for negative outcomes.

**Priorities:**
To what degree might levels of implicit, or unconscious bias held by educators contribute to disproportionate discipline rates for Black students and what is the impact of Professional Development focused on reducing levels of negative implicit bias toward Blacks held by educators?

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Administrative Support</td>
<td>Recruitement of Study Participants</td>
<td>Total of 50 Middle school staff for intervention and control groups</td>
</tr>
<tr>
<td>District Discipline Data</td>
<td>Calculation of Baseline Data on Scope of Disproportionality</td>
<td>Data on Black/White ODRs before and after intervention</td>
</tr>
<tr>
<td>Assessments measuring levels of bias</td>
<td>Administration of CoBRAS and IAT</td>
<td>Identified levels of explicit and implicit bias Participants sorted into intervention and control groups according to results</td>
</tr>
<tr>
<td>Learning Management System</td>
<td>Development of Web-based PD curriculum</td>
<td>8 week debiasing intervention vs. classroom management only PD</td>
</tr>
<tr>
<td>Professional Development Expertise</td>
<td>Quantitative and Qualitative data analysis</td>
<td>Indicators of relationship between bias and discipline rates</td>
</tr>
<tr>
<td>Data Analysis</td>
<td></td>
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</tr>
</tbody>
</table>

**Short-Term Outcomes – Impact**

<p>| | | |</p>
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<thead>
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<tbody>
<tr>
<td>All participants will have Increased Knowledge of Classroom Management Strategies</td>
<td>All participants will observe improved classroom management practices</td>
<td>Rates of ODRs for all students will decrease</td>
</tr>
<tr>
<td>Intervention participants will have increased awareness of Explicit and Implicit Bias</td>
<td>Intervention participants will have more proportionate ODRs of Black and White students than control group participants</td>
<td>Academic Achievement gaps between black and white students will be reduced at the middle school level</td>
</tr>
<tr>
<td>Intervention participants will have Increased Motivation to resolve implicit bias</td>
<td>Decreased levels of negative implicit bias toward Blacks</td>
<td>School staff, students, and families will report improved rating of school climate</td>
</tr>
<tr>
<td>Decreased levels of implicit bias</td>
<td>Decreased levels of colorblindness</td>
<td>District leaders will require PD focused on implicit bias for all educators in the district</td>
</tr>
</tbody>
</table>

**Intermediate Outcomes**

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<tbody>
<tr>
<td>Intervention participants will have increased comfort levels in talking about the impact of race on discipline</td>
<td>Academic Achievement gaps between black and white students will be reduced at the middle school level</td>
<td>District leaders will require PD focused on implicit bias for all educators in the district</td>
</tr>
<tr>
<td>Decreased levels of colorblindness</td>
<td>Academic Achievement gaps between black and white students will be reduced at the middle school level</td>
<td>District leaders will require PD focused on implicit bias for all educators in the district</td>
</tr>
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</table>

**Long-Term Outcomes**

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<tbody>
<tr>
<td>Academic Achievement gaps between black and white students will be reduced at the middle school level</td>
<td>District leaders will require PD focused on implicit bias for all educators in the district</td>
<td>Academic Achievement gaps between black and white students will be reduced at the middle school level</td>
</tr>
</tbody>
</table>

**Assumptions**
1. Teachers do not intentionally refer Black students to the office more than students of other races.
2. Implicit bias correlates with one’s attitudes toward Blacks in real-life scenarios.
3. A decrease in levels of implicit bias will have a direct impact on referrals to the office.
4. Participants will be willing to participate in the intervention & disclose thoughts and feelings about race.

**External Factors**
1. Fidelity of implementation of intervention strategies
2. Participants’ level of motivation to reduce levels of implicit bias
3. Generalization of principals learned in this intervention to broader school context
4. Societal events may heighten participants’ awareness/ sensitivity of issues of race and intervention content.
CURRICULUM VITAE

RENAE AZZIZ

Email: razziz@virtuosoed.com
www.virtuosoed.com

Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Institution</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>The Johns Hopkins University, Baltimore, MD</td>
<td>currently fulfilling requirements toward the Doctorate in Education (Ed.D.) degree. Specialization: Entrepreneurial Leadership in Education. Anticipated completion date May 2017.</td>
</tr>
<tr>
<td>2002-2005</td>
<td>Indiana University, Bloomington, IN</td>
<td>received Specialist (Ed.S.) degree in School Psychology, minor in Counseling.</td>
</tr>
<tr>
<td>1996-1999</td>
<td>Indiana University, Bloomington, IN</td>
<td>received a BA in Psychology with Honors; minors in Chemistry &amp; African-American studies.</td>
</tr>
</tbody>
</table>

Dissertation Title: The Nature of Bias and Its Influence on Disparate Discipline Outcomes

Professional Experiences

Virtuoso Education Consulting, Founder & Director August 2008- present
Educational consultant for educational systems in the areas of School Improvement, Disproportionality, Response-to-Intervention, Data-based Decision Making, Assessment, and Culturally Responsive Practices.
Recent Clients:
- Indiana Department of Education
- Amplify Education, Inc., servicing schools/districts Nationwide
- Fort Wayne Community Schools, Fort Wayne, IN
- MSD Warren Township, Indianapolis, IN
- MSD Wayne Township, Indianapolis, IN
- Peoria Public School District 150, Peoria, IL

Blumberg Center for Interdisciplinary Studies in Special Education at Indiana State University, Project Coordinator August 2006- August 2008
Served as Project Coordinator, responsible for providing professional development services to Indiana educators related to the implementation of tiered systems of prevention and intervention (Response-to-Intervention).
Professional Experiences, continued

R.I.S.E. Special Services, School Psychologist School Year 2004-2006
Served as the psychologist for the two EdisonLearning® schools in Perry Township. EdisonLearning® schools operate under a philosophy of responsible inclusion. Under this model, special education students are full participants in regular classrooms, with additional in-class support from certified special education teachers and related staff needed. Further, the EdisonLearning® model is focused on implementing research-based practices to increase student achievement. Specific duties include cognitive, academic, and behavioral assessment and intervention and curriculum-based assessment within a response to intervention framework.

The Equity Project at Indiana University, Graduate Assistant: August 2002- August 2004 Graduate Research Assistant on the Indiana Minority Disproportionality Project, a collaboration with the Indiana Department of Education to inform Indiana school systems about root causes of disproportionality and assist school districts in developing strategies to begin to remedy issues of disproportionality. Lead Research Assistant working with two urban school districts on projects focused on promoting family involvement and creating more effective General Education intervention (GEI) teams as a means of effecting disproportionality in special education.

Case Manager- 07/2000-08/2002
Midtown Mental Health Center: Provided mental and behavioral health services to children in the Indianapolis Public School system (Charity Dye School #27; Brookside Elementary School #54). Essential duties included conducting functional behavioral assessments, creating behavior modification plans, conducting professional development trainings related to behavioral interventions, assisting in the identification of children in need of educational testing, participating in the development of IEPs, linking families to needed community resources, maintaining effective working relationships with community organizations, and communicating with members of an established treatment team to monitor client’s progress on treatment goals.

Pleasant Run, Inc.: Provided a daily living model for residents of a children’s residential treatment center. Essential duties included medication management, linking families with community resources, supportive counseling, and leading group sessions on various topics.

Research Assistant- 09/1998- 12/1999
Psychology Dept., Indiana University: Research assistant in Dr. Russell Fazio’s social psychology lab toward completion of Undergraduate Honors Thesis. Investigated how people form attitudes and how prejudices may effect the validity of those attitudes.
**PRACTICUM EXPERIENCE**

**Perry Township (Indianapolis),** Fall Semester (August 2003- December 2003). Working under the supervision of a full-time licensed School Psychologist at Perry Meridian Middle School. Responsible for cognitive, academic, personality, and adaptive assessments, systematic observations, consultations with parents and teachers, and reporting results of evaluations of assigned cases at case conferences.

**Clear Creek Elementary School (Bloomington, IN),** Spring Semester (January 2004- May 2004). Served as a consultant for a multi-age classroom teacher. Designed and implemented a direct intervention for a student experiencing social skills deficits across multiple settings.

**Institute for Child Study (Bloomington, IN),** Spring Semester (January 2004-May 2004). Worked as a student clinician providing services to children experiencing learning and/or behavior problems and their families in a clinical setting. Services included, but were not limited to, comprehensive psycho-educational evaluations, classroom consultations, academic and behavioral intervention services.

**Lawrence Township (Indianapolis, IN),** (August 2002- May 2003). Worked in two district elementary schools under the supervision of a full-time licensed School Psychologist. Duties included the administration of cognitive and academic tests as well as adaptive behavior measures.

**SELECTED ARTICLES**


Selected Presentations


Azziz, L.R. (2013). Culture’s Influence on Learning and Behavior: Considerations for Improving School Climate through Cultural Awareness. Keynote presented at the 2nd Annual Louisiana State Climate Conference. Shreveport, LA.


Selected Professional Development Resources for Educators


Azziz, R. (2010). Reciprocal Teaching: Improve student reading comprehension and meaning extraction from text. © Virtuoso Education Consulting, LLC.


Professional Affiliations

• Association of Black Psychologists (ABPsi), 1997-2000(student affiliate), 2002-present (full member)
• National Association of School Psychologists (NASP) Member, 2002-present
• Indiana Association of School Psychologists (IASP) Member, 2002 present
• Council for Exceptional Children (CEC) Member, 2002-present

Awards and Licenses

• Minority and Woman-Owned Business Enterprise (MBE/WBE) Certified in Indiana, Illinois, Virginia (Maryland and New York certifications in progress)
  • National Minority Supplier Development Council (NMSDC) certified minority business.
  • Qualified Administrator of the Intercultural Developmental Inventory (IDI). Certified April 2009.
  • National Association of School Psychologists (NASP) Minority Scholarship Award Recipient 2004.
• McNair Scholars Program, Indiana University, 1997-1999