8-2017

Effects of Implicit Bias on Teachers' Expectations of Student Relationships

Colin Michael McGinnis

University of Nebraska-Lincoln, colin.mcginnis@huskers.unl.edu

EFFECTS OF IMPLICIT BIAS ON TEACHERS' EXPECTATIONS OF STUDENT

RELATIONSHIPS

by

Colin Michael McGinnis

A THESIS

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Master of Arts

Major: Educational Psychology

Under the Supervision of Professor Kathleen Moritz Rudasill

Lincoln, Nebraska

August, 2017

EFFECTS OF IMPLICIT BIAS ON TEACHERS' EXPECTATIONS OF STUDENT

RELATIONSHIPS

Colin Michael McGinnis, M.A

University of Nebraska, 2017

Advisor: Kathleen M. Rudasill

Numerous studies have considered the implications of child characteristics such as race and gender on the relationships with and expectations of students held by teachers. Yet, few studies among this body of research have focused on using direct measures of implicit associations held by teachers, and considered how these implicit beliefs may impact their interactions with students. The present study examined differences in teachers' expectations of relationships and likelihood to intervene in typical and disruptive behaviors as a result of differing race and gender of students. Results indicated that teachers report being less tolerant of Black student's disruptive behavior than the same behavior displayed by White peers. Further, findings indicated that teachers were more likely to report feeling angry and worried about behavior exhibited by boys than girls. Implications for teacher training are explored.

Table of Contents

Introduction

Title VI of the Civil Rights Act (1964) states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Based on this law, Americans should be able to confidently expect that if the federal government funds a service, even partially, anyone should have reasonably equal access to it. However, in the American education system, it is fair to wonder if all students are equally benefiting.

Racial disparities in public schools have been historically well documented, including a large, resounding, and persistent educational achievement gap (Ferguson, 2003b; Fryer & Levitt, 2004; Ladson-Billings, 2006), disproportionate rates of discipline (Downer, Goble, Myers & Pianta, 2016), and evidence of poorer relationships with teachers (Gregory, Skiba & Noguera, 2010) for racial minority compared with majority students. One potential explanation for these disparities is that teachers hold different expectations for students of different races or genders, fostered by implicit social cognitions—particularly implicit attitudes and implicit stereotypes. However, to date, few studies have explored the relationship between teachers' expectations of student-teacher relationships and implicit biases. The present study is an exploration of this relationship.

Student-Teacher Relationships

After the immediate family, schools are the most important developmental system in the lives of children (Bronfenbrenner & Morris, 2006). Research has shown the relationship between students and teachers to be a key contributor to the development of student academic and social

competences. Student-teacher relationships have been characterized by the degree of involvement between teacher and child and by the positive or negative emotional quality of that involvement. Some of these relationships have been described as close and affectionate, while others have been described as distant and formal, or even conflictual and hostile (Howes & Matheson, 1992; Pianta, 1994; Pianta, Steinberg & Rollins, 1995). Positive relationships, those that are close and affectionate, have been associated with improved academic outcomes, psychosocial functioning, classroom behavior, engagement, school adjustment, and motivation and engagement in school (Decker, Dona & Christenson, 2007; Pianta et al., 1995; Pianta & Stuhlman, 2004). Conversely, negative student-teacher relationships have been shown to result in low achievement outcomes, poor school attendance and preferences, poor work habits, and increased behavior problems (Birch & Ladd, 1997; Hamre & Pianta, 2001). When considering at-risk student populations, positive relationships with teachers may promote positive outcomes and reduce risks such as school dropout. However, having a negative relationship with a teacher in such a situation may further promote negative outcomes (Decker et al., 2007).

Racial and Gender Differences in STR

Child characteristics, including race and gender, have been shown to contribute to differences in children's relationships with their teachers (Alexander, Entwisle, Blyth & Mcadoo, 1988; Decker et al., 2007; Jerome, Hamre & Pianta, 2009). For example, girls tend to have better relationships with teachers than do boys and teachers are more likely to characterize their relationships with boys as having higher levels of conflict and lower levels of closeness (e.g., Ewing & Taylor, 2009; Hamre & Pianta, 2001). Similarly, levels of conflict in the teacher–child relationship are consistently more conflictual between boys and their teachers (Koepke &

Harkins, 2008). Gender differences have also been detected in teachers' perceptions of students outside the context of relationship quality (Saft & Pianta, 2001). For example, child gender is a predictor of teacher ratings of both conduct problems and academic achievement, with boys reported as having more problem behaviors at school and higher levels of competency in math and reading (Patterson, Kupersmidt & Vaden, 1990).

Less is known about the role a child's race has on relationship quality, especially for children in low-income and urban environments (Murray, Waas & Murray, 2008). However, in general, White children experience more closeness and less conflict in their relationships with White teachers than do Black children, as teachers tend to rate their relationships with children more positively when there is an ethnic match between teacher and child (Saft & Pianta, 2001). Additionally, over time, Black children appear to be at risk for increased conflict with teachers (Jerome et al., 2009). White teachers also tend to view Black children as exhibiting more behavioral problems than their Black colleagues indicate (Zimmerman, Khoury, Vega, Gil & Warheit, 1995). This is particularly concerning due to the degree to which Black boys are disproportionately disciplined compared to White boys.

Findings by Alexander and Entwisle (1988) demonstrated that first-grade teachers responded differently to Black and White children displaying the same behavior, indicating different ways of interpreting child behavior based on the race of the child. This could be due, in part, to potential misalignment of belief systems and socialization practices between educators and the family backgrounds of young children of color. Studies with adolescents have shown, minority teachers may be more likely than White teachers to hold higher expectations and be more optimistic about academic futures for children from their own racial group (Gregory et al.,

2010). Similarly, results among elementary teachers have indicated that teachers give higher grades to students from their own racial group (Ouazad, 2014).

It has been well established that factors contributing to student-teacher relationships are individual characteristics of children (e.g., gender, race, behavior; Ewing & Taylor, 2009; Saft & Pianta, 2001), and individual attributes of the teacher (e.g., beliefs about teaching, education), among other things (Jerome & Pianta, 2008). In fact, child and teacher attributes account for between 4.5% and 27% of the explained variance in teachers' perceptions of relationship quality, most notably with higher predictions for relationship aspects that teachers experience as negative or of concern (Saft & Pianta, 2001). As with many other school outcomes, the measurement of student-teacher relationships has generally relied on the teachers' perceptions (Birch & Ladd, 1997; Pianta & C., 1999). As teacher beliefs and perceptions play such an important role in the development and measurement of student-teacher relationships, it is important we understand the potential impact biases in teacher beliefs' may have on them.

Implicit Biases

One reason some teachers form different expectations for students of different races or genders than their own may be because of the underlying implicit social cognitions they hold—particularly implicit attitudes and implicit stereotypes. Social psychologists define an *attitude* as an evaluative disposition—the tendency to like or dislike, or in the case of social interactions, to act favorably or unfavorably toward someone or something. Similarly, a *social stereotype* is a mental association between a social group or category and a trait that may or may not be based on reality (Greenwald et al., 1985; Greenwald & Banaji, 1995). When these attitudes and stereotypes elicit affective responses, they are described as *prejudices*, or feelings and attitudes

held toward a particular group of people (Stangor & O'Brien, 2010). Negative behavioral responses caused by prejudices are known as *discrimination*, in which people are treated differentially due to their identity (Vescio & Bloodhart, 2010). Different levels of awareness of a particular psychological process are defined by the terms implicit and explicit (Jacoby & Witherspoon, 1982). Processes that can be consciously detected and reported are said to be *explicit*. All other processes are termed *implicit*. Therefore, implicit attitudes and stereotypes are the thoughts and feelings about other people based on characteristics such as race, ethnicity, age, and appearance operating below conscious awareness or control.

Where do implicit social cognitions originate? Over the course of our lives, mental associations are formed by the direct and indirect messaging we receive about different groups of people. As we are exposed and re-exposed to certain identity groups paired with specific characteristics, we begin to automatically and unconsciously associate these identities with those characteristics, whether or not those associations are factual (Staats, Capasto, Wright & Jackson, 2016). Because implicit attitudes and biases arise outside of conscious awareness, these associations do not necessarily align with teachers' openly held beliefs or even reflect stances they would explicitly endorse. When implicit biases and explicit beliefs do not coincide, it is referred to as a *dissociation* (Staats et al., 2016). For example, due to the strong implicit association held by many Americans between Black men and criminal activity (Staats et al., 2016), one might find themselves crossing the street to avoid having to walk past a Black man despite having no explicit reason to think that individual would cause them any harm.

For teachers, the complex dynamic between personal implicit biases about students and explicit intentions (e.g., efforts to close the achievement gap or serving at-risk students) may

result in the development of dissociations. This is not to say the development of this gap is intentional or malicious. Instead, it may be an unfortunate consequence of the current United States education climate. According to recent analysis, nearly 82 percent of all public school teachers identify as non-Hispanic White (Bitterman, Gray & Goldring, 2013). This predominately White representation is not consistent with student enrollment, as White students make up only 49 percent of all students in public schools (Snyder, de Brey & Dillow, 2016). As we transition into an era of minority-majority enrollment for the first time—a time in which minority students are representing a majority of student populations in schools—teachers and school administrators need to be cognizant of the potential impact of implicit biases on students' academic outcomes. For example, recent research generally supports the contention that implicit bias can harm academic outcomes for minority students. In particular, implicit measures of prejudiced teacher attitudes have been shown to explain differing racial achievement gaps. This link was mediated through differences in teachers' expectations (van den Bergh, Denessen, Hornstra, Voeten & Holland, 2010). Research suggests that lower expectations detract from student learning through a variety of mechanisms, including less interpersonal warmth, less effortful teaching (Brophy, 1986), and fewer teacher-provided opportunities (Rist, 1970).

Although not looking explicitly at bias, extensive previous research has shown minority students underperform relative to their White peers (Aud, Fox & KewalRamani, 2010; Ferguson, 2003b; Hollins, Etta & King, 1994; King, 2005; Oruhv & Flores, 2015). Even as young as in Kindergarten, minority students show weaker reading skills than White students, and these differences persist through high school (Ferguson, 2003b). Discipline rates in the United States are gendered and racially disproportionate. Recent reports from the U.S. Department of

Education (2016) indicate that most children in public preschool children who are suspended are boys (78%). When considering race, Black K-12 students are 3.8 times more likely to receive one or more out-of-school suspensions and 1.9 times more likely to be expelled than their White peers (U.S. Department of Education Office for Civil Rights, 2016). Analysis also shows more boys than girls are likely to repeat a grade. While Black students make up only 16% of high school students, they account for 30% of retained high school students. (U.S. Department of Education Office for Civil Rights, 2016).

Representation in the Classroom

Creating a representative workforce is critical in education as a growing body of research has suggested that minority students could benefit from teachers with an ethnic match (Downer et al., 2016; Egalite, Kisida & Winters, 2015; Ehrenberg, Goldhaber & Brewer, 1995; Pitts, 2007). Even more interesting, recent studies have shown minority teachers, regardless of their racial identity, are viewed more highly by both minority and White students than White teachers (Cherng & Halpin, 2016). The idea of representative teaching is supported by a large body of empirical research and has demonstrated that public agencies composed of more racially representative workforces distribute outputs more equitably among minority and nonminority client populations (Nicholson-Crotty, Grissom & Nicholson-Crotty, 2011; Theobald & Haider-Markel, 2009).

It has been argued that having minority teachers represented in the classroom may elicit role-modeling effects that in turn raise student performance. Dee (2004) demonstrated that Black students perform better on math and reading tests when taught by Black teachers. He attributed these effects to the extent to the importance of ethic match between teachers and students

because of passive teacher effects (e.g., role model effects, stereotype threat) or active ones (e.g., teacher biases). The research suggests strong theoretical reasons to believe that minority students would benefit from having more diverse teachers, and these theoretical arguments are largely backed by empirical evidence suggesting that there are small but meaningful "role model effects" when minority students are taught by teachers of the same race (Gershenson, Hart, Lindsay & Papageorge, 2017). The benefits to students are not only due to the student-led perceptions of the role model effect; that is, it is important to note that subjective evaluations and disciplining of minority students differ when provided by same-race teachers. For example, Ehrenberg et al. (1995) found that teachers are more likely to give better subjective evaluations of students' future successes and behaviors for students of the same race. It could be argued that the benefits observed from minority teachers are due to an understanding of cultural differences, and perhaps reduced biases, that White teachers do not possess.

Purpose of the Current Study

The purpose of the current study was to explore the interplay between implicit associations held by teachers and the decisions they make regarding student behaviors. Specifically, the study sought to examine whether teachers evaluate the behavior of Black students as more disruptive and problematic compared to the same behavior of White students, based only on the name of the student. I was particularly interested in how teachers' implicit attitudes were associated with differences between teachers' evaluations of the disruptiveness of students' behavior, their reaction to disruptive behavior, and their perceptions of their efficacy in managing students' disruptive behavior. Within that framework, the following sub-questions were explored:

1. Test whether identified bias is strongest for Black or White students.

2. Test whether identified bias is strongest for male or female students.

3. Explore the extent to which teachers' implicit racial biases on the IAT predict differences between teachers' evaluations of and reactions to Black vs. White students' behavior.

4. Explore the extent to which teachers' implicit racial biases on the IAT predict differences between teachers' perceptions of their efficacy in managing disruptive behavior.

I expect that, regardless of experience, teachers will more likely perceive that both Black and male students will have more problem behaviors and poorer quality relationships. Stated differently, when comparing differences in evaluation or and response to behavior, teachers will see Black students as more disruptive and problematic. I expect similar findings to be true when comparing male and female students in that behaviors displayed by males will be perceived as more disruptive and problematic. I hypothesize these perceptions are due to implicit biases held by teachers, and that, even when presented with similar scenarios for both races and genders, teachers will tend to hold more negative views aligned with their implicit attitudes.

Methods

Participants

Thirty-two teachers were recruited from a national sample of educators. Consistent with national teacher demographics (Feistritzer, Griffin & Linnajarvi, 2011), an overwhelming majority of respondents identified as White (84.4%), female (81.3%), and had a Master's degree (62.5%) (Table 1). Participants were predominantly upper elementary school teachers (5 third-

grade, 3 fourth-grade, 6 fifth-grade, 4 sixth-grade) (Table 2). Teachers were predominately teaching in states in the mid-west (46.9%) (Table 3). All but one educator identified that they were comfortable teaching in multicultural or diverse settings (Table 4) and an overwhelming majority indicated they had some form of training in multicultural education (90.6%).

Recruitment of sample. Educators were recruited through their local state education association newsletters in order to obtain a sample that was geographically diverse. In total, nine state education associations sent a message through their newsletter email listservs (Appendix B). Teachers interested in participating could access the web-based survey through a hyperlink attached to the message. It should be noted that I did not have access to the newsletter listserv or contact with the participants, and all respondents remained completely anonymous.

Procedure

Data collection took place through an online Qualtrics survey administered through state education association newsletters. Participants completed the survey on their personal computers. Each session was divided into five phases. In the background information phase, participants completed the demographic survey. During the vignette phase, participants were randomly assigned to one of four vignette sets. Each vignette set depicted two vignettes, one in which a child displayed typical classroom behaviors and another where the child displayed exuberant classroom behaviors (vignettes are provided in the Appendix E). Additionally, the sets differed in the race (Black or White) and gender (male or female) of the depicted child. Vignettes were followed up with a questionnaire aimed at assessing the participant's responses to the depicted behavior. During the teacher self-efficacy phase, participants completed a survey designed to assess teachers' perceptions of self-efficacy for classroom management. During the implicit

association phase, participants completed an implicit association test. Finally, during the association check phase, participants were asked to identify the race and gender of the students depicted in the vignette phase.

Measures

Five self-report measures assessed participants' (a) demographics, (b) attitudes and beliefs elicited through vignettes, (c) teacher efficacy for classroom management, (d) implicit associations, and (e) assumptions about vignette characters.

Demographic survey. Teachers completed a brief demographic survey to obtain information about participants' gender, racial identity, years of teaching experience, location of current school where employed, current grade teaching, highest level of education obtained, locations of high school and institution that awarded the highest degree obtained, training experience in multicultural education or diversity, and comfortability of teaching in diverse settings (Appendix D).

Vignette development. Vignettes were used to reduce secondary factors that may influence teachers' perceptions of children, such as previously established relationships or outside influences from former teachers. Each vignette presented different scenarios describing typical and disruptive classroom behaviors. The vignettes were adapted from similar studies that sought to understand the impact of race on teacher response to disruptive behaviors (Jackson, Taylor & Buchheister, 2013) and the impact of gender on developing beliefs about shy and exuberant children (Coplan, Hughes, Bosacki & Rose-Krasnor, 2011). As a result, four sets of vignettes were developed, each depicting two scenarios: (a) a typically behaving White male and a disruptive Black male (Appendix E); (b) a typically behaving Black male and a disruptive

White male (Appendix F); (c) a typically behaving White female and a disruptive Black female (Appendix G); (d) and a typically behaving Black female and a disruptive White female (Appendix H). Figure 2 depicts the combination of character demographics for each vignette set.

       Vignette character name selection. Names were chosen for each vignette to trigger teachers' implicit attitudes about race and gender. The characters depicted in the vignettes were designed to elicit assumptions based on the students' name without explicitly stating the race or gender of the character. To accomplish this goal, I employed a purposeful strategy that used racial differences in naming patterns to identify names that are unique or nearly unique to the Black or White community (Fryer & Levitt, 2004; Lieberson & Michels, 1995). Although other studies have used the names identified from analysis of birth certificate data used in Fryer's 2004 study (Kunesh & Noltemeyer, 2015), it was important the names were updated to be applicable to better represent children who would currently be enrolled in elementary classrooms. Therefore, birth certificate data were acquired from a state in the Midwest for all children born in 2011. This specific dataset was selected because children born in 2011 would have been enrolled in Kindergarten in 2016 when data were collected. I created a Black Name Index (BNI), which included comparison groups comprised of the names of non-Hispanic White children, non-Hispanic Asian children, non-Hispanic Native American children, and Hispanic children. Similarly, a White Name Index (WNI) determined how "White" a name is compared to non-Hispanic Black children, non-Hispanic Asian children, non-Hispanic Native American children, and Hispanic children. My aim with this process was to elicit implicit attitudes without providing identifying information regarding race and gender in the vignettes (e.g., pronouns, race). Although other studies have used the names identified from analysis of birth certificate data used

in Fryer's 2004 study (Kunesh & Noltemeyer, 2015), it was important the names were updated to be applicable to better represent children who would currently be enrolled in elementary classrooms.

Using the 2011 birth certificate data, the following formula was used to calculate a Black Name Index (BNI) determining the uniqueness of a name between Black and White children:

$$BNI_{(White)} = \frac{\Pr(Black_{name})}{\Pr(Black_{name}) + \Pr(White_{name})} * 100$$

where the probability of name (which represents a particular first name) being Black was divided over the sum of the probabilities of name being Black or White. The index ranges from 0 to 100. If Black children only received that name, the BNI value was 100. Conversely, if White children only received that name, the BNI was 0. A BNI of 90 implies Black parents choose a name nine times more often than white parents (Fryer & Levitt, 2004). It is important to note that this measure is unchanged by the fraction of the population that a minority group comprises, and by the overall popularity of a name. A similar secondary series of analysis was conducted to assure uniqueness between Black and Asian, Native American, and Hispanic names (BNI(Asian), BNI(Native), and BNI(Hispanic), respectively.

A similar formula to the BNI was used to calculate the White Name Index (WNI) comparing the uniqueness of a name between Black and White children:

$$WNI_{(Black)} = \frac{\Pr(White_{name})}{\Pr(White_{name}) + \Pr(Black_{name})} * 100$$

where probability of name (which represents a particular first name) being White was divided over the sum of the probabilities of name being White or Black. Thus, interpretation is inverse to that of the BNI, where a value of 100 now represents a name given only to White children. As

with the BNI, a similar secondary series of analysis were conducted to assure uniqueness

between White and Asian, Native American, and Hispanic names (BNI(Asian), BNI(Native),

and BNI(Hispanic), respectively.

From the 2011 birth certificate data, 2900 unique names were identified, with 1046

different names given to males and 1316 different names given to females. For the process of

developing vignette characters, unisex names—or names that were used for both males and

females—were omitted. Further, names with a BNI(Hispanic), BNI(Asian), BNI(Native),

WNI(Hispanic), WNI(Asian), or WNI(Native), of less than 80 were also disqualified from

vignette name selection. Four names were randomly selected from all applicable names for

vignette use; Jackson, Charlotte, Xzavier, and Aniyah (Table 5-6).

Responses and Beliefs

Following each vignette, teachers were asked to rate on a scale ranging from 1 (not at

all/extremely unlikely) to 5 (very strongly/extremely likely) their level of concern and the likely

use of strategies (e.g., how likely to seek help from home regarding the child's behavior) to

respond to the depicted child behaviors (Appendices D-G). The contents of the response list were

selected and adapted from previous research on teachers' responses to child problem behaviors

(Bullock, 2011; Coplan et al., 2011).

 Teacher Efficacy for Classroom Management

Teacher efficacy for classroom management was assessed using an adapted version of the

Efficacy for Classroom Management subscale of the Ohio State Teacher Efficacy Scale (OSTES;

Tschannen-Moran & Hoy, 2001 - see Appendix I). The measure included 8 items assessing

teachers' perceptions of their ability to handle difficult student behaviors. Responses ranged

from 1 ("not at all likely") to 5 ("a great deal"). Sample items included "How much can you do to control a disruptive behavior in the classroom?" and "How well can you keep a few problem children from ruining a group activity?" Responses to all items were summed to give a total score where a higher score reflects a greater sense of teaching efficacy. For this sample, the scale reliability was α=.90. The *Efficacy for Classroom Management* scale has demonstrated evidence of positive correlations with other measures of personal teaching efficacy that provide evidence for construct validity (see Tschannen-Moran & Hoy, 2001).

Implicit Biases

Teacher's implicit racial bias was measured using The Implicit Association Test (IAT). The IAT is one of the most widely used measures of implicit biases (Oswald, Mitchell, Blanton, Jaccard & Tetlock, 2013; Richeson, Trawalter & Shelton, 2005; Staats et al., 2016). The IAT measures automatic associations and it has been employed in numerous studies to assess automatic evaluations of social groups (see Greenwald, McGhee & Schwartz, 1998 for details). In an IAT, subjects classify target concepts and attributes using two designated keys on the keyword.

Consistent with common procedures, teachers completed a 7-block Black vs. White name IAT created using the *iatgen* software in Qualtrics (Carpenter et al., 2017). The Black versus White name IAT represents race demographics with Black and White names (Dasgupta, Mcghee, Greenwald & Banaji, 2000; Greenwald et al., 1998). Research has indicated a better ability to capture strong pro-White attitudes using names rather than pictures (Dasqupta et al., 2000). The names selected for the IAT stimuli differed than those used in the vignettes. Eight names were selected from those used by Dasqupta et al. (2000) in a similar procedure: Malik, Lamar, Jamel

and Rasaan were used as the Black stimuli and Josh, Andrew, Justin and Brandon were used as the White stimuli.

The IAT developed for this study involved seven steps (Figure 1). The first two steps introduced the target (i.e., "Black" versus "White") and attribute (i.e., "good" versus "bad") concepts. Then, the third and fourth steps combined the target and attribute, requiring participants to sort Black names and "bad" synonyms to the right and White names and "good" synonym to the left. The sixth and seventh steps recombined the target and attribute after reversing the attribute response in step five (i.e., "Black + good" versus "White + bad"). Stimuli appeared within a centered white window against a white background. Black (i.e., Malik, Lamar, Jamel, and Rasaan) and White (i.e., Josh, Andrew, Justin and Brandon) names appeared in black letters and evaluative attributes (i.e., good attributes included love, joy, glorious, peace, happy, wonderful, pleasure and laughter; bad attributes included horrible, failure, awful, hurt, nasty, terrible, evil and agony) in green letters. Reminder labels were positioned above the stimuli on the left and right side. These reminders read "White" and "Black" for single target-classification blocks, "good" and "bad" for single attribute-classification blocks. Mixed target attribute blocks were also accompanied by appropriate labels (e.g., "Black + good" and "White + bad"). Incorrect classifications were followed by error feedback (i.e., a large red "X").

All tasks in the IAT were administered in seven blocks of 20 trials each. Within each block, stimuli were randomly selected and no more than two consecutively presented stimuli belonged to the same category. Participants were randomly assigned to one of four IAT sets (Black on right with positive attributions, Black on right with negative attribution, Black on left

with positive attributions, or Black on left with negative attribution) in order to counter–balance across participants.

The resulting reaction-time data were analyzed following the recommendations outlined by Carpenter (2017). Keeping with previous research, I calculated an IAT D-score for each participant. This D-score measures the difference between the average response latencies between contrasted conditions (White vs. Black) divided by the standard deviation of response latencies across the conditions. As such, larger, positive values represent a stronger prejudiced attitude towards the first group in each pairing, whereas negative values reflected a stronger prejudiced attitude towards Black individuals.

Assumptions About Vignette Characters

After completing all assessments, participants were asked to identify the demographics of the characters in the two vignette scenarios. As it was critical that participants' implicit associations were the factor driving the perception of expected relationships, participants were asked to identify if the children in each vignette scenario were either male or female, and Black or White.

<div align="center">

Analysis

</div>

All analyses were conducted in IBM SPSS version 24, unless otherwise noted. First, descriptive statistics were calculated for all variables. See Tables 1-7. Next, a series of independent samples t-tests were used to determine differences in teachers' responses to the vignette questions on the bases of depicted race and gender (Tables 10-11). Additional correlation analyses were conducted to determine the relationship among teacher characteristics, experience with multicultural teaching settings, and efficacy (Table 12-13). IAT data were

analyzed using Carpenter's *iatgen* Shinny web based applet (2017). Data were uploaded, cleaned and processed to provide diagnostics such as reliability, $r = 0.80$), and D-scoring (Table 14). Correlation analyses were used to determine the relationships between IAT data and teacher demographics (Table 13), responses to behaviors depicted in vignettes (Tables 15-16), and teacher efficacy (Table 17).

Results

Descriptive Statistics

Descriptive statistics for teacher demographics (Table 1), current classroom characteristics (Table 2), number of years and current grade teaching (Table 3), self-reported comfort teaching minority or diverse students (Table 4), responses to behavior (Table 7), and teacher efficacy (Table 8) are reported.

Response to Typical and Disruptive Behaviors

As show in Table 7, on average, when presented with a child exhibiting typical classroom behavior, teachers were unlikely to intervene ($M = 1.40$, $SD = .77$) in response to the displayed behaviors. They indicated it is unlikely they would be angry with ($M = 1.13$, $SD = .43$) or worried about ($M = 1.27$, $SD=.64$) the child's behavior, and would be encouraging of such behaviors displayed in their classroom ($M = 4.30$, $SD=.79$). Overall, teachers felt adequately prepared to deal with the child's behavior ($M = 4.43$, $SD=.64$).

However, when presented with a child displaying more disruptive behaviors, teachers' perceptions of the situation differed. Teachers reported they would be more likely to intervene ($M = 4.45$, $SD = .51$) and discouraging of such behaviors ($M = 1.72$, $SD = .84$). Teachers indicated they would be worried about such disruptive behaviors ($M = 3.69$, $SD = 1.31$), noting

these behaviors would likely have a negative impact on relationships with peers ($M = 1.62$, SD

$= .56$) and teachers ($M = 2.00$, $SD = .60$). Teachers noted they were slightly less prepared to deal

with the student ($M = 3.97$, $SD=.87$), and would likely seek help from home ($M=4.03$, $SD=.82$) to

handle problem behaviors. When considering teacher efficacy, it is notable that teachers

exhibited only some degree of confidence in their abilities to manage difficult children in the

classroom.

      Comparing responses between typical and disruptive behaviors. To examine if the

differences between mean responses between typical and disruptive behaviors were statistically

different, a paired t-test was conducted. Results indicated that, except for increasing the amount

of work or rigor provided to the student, differences between means were significant (Table 9).

Of particular interest, there was a significant difference, on average, between teachers' likelihood

of intervening in response to disruptive behaviors ($t(28) = -15.54$, $p < .001$) compared to typical

behaviors. In addition, teachers anticipated having more positive relationships with typically

behaving students compared with disruptive ones ($t(28) = 9.29$, $p < .001$).

Racial and Gender Differences in Teacher Reports

      To understand the role race and gender play in the extent to which teachers respond to

problem behaviors, tests of independent samples were conducted (Table 10-11). As seen in Table

10, when examining the difference in teacher responses between boys and girls exhibiting typical

behavior, results indicated that, on average, teachers were less likely to be tolerant of boys'

behaviors than that of girls ($t(28) = -3.63$, $p < .001$). Teachers, on average, reported that they

were more likely to feel angry ($t(28) = 1.74$, $p < .001$) and worried ($t(28) = 2.48$, $p < .001$) about

boys' behavior than girls. When considering how to handle behaviors, teachers reported being less likely to seek help from home ($t(28) = -1.08, p = .05$) for boys' behavior than girls.

Examining gender differences for disruptive behaviors, differences in tolerance, anger, worry and seeking help from home did not emerge. Instead teachers indicated that they were less likely to feel adequately prepared to deal with disruptive behavior from boys than girls ($t(28) = -.63, p = .03$).

As shown in Table 11, when considering the race of students exhibiting typical behavior, teachers reported they would be more likely to be worried about White students' behavior than Black students' ($t(28) = 1.61, p = .005$). When considering students displaying disruptive behavior, teacher reported being more likely to be tolerant ($t(28) = 2.99, p < .001$) of White students' disruptive behavior than that displayed by Black students. Additionally, teachers reported being more likely to be happy ($t(28) = 1.82, p = .04$) and worried ($t(28) = .66, p = .04$) about White students' disruptive behavior than that displayed by Black students.

Associations Between Teacher Characteristics

In order to examine the extent to which teacher characteristics (e.g., number of years teaching and highest level of education completed) were associated with teacher efficacy, correlation analyses we conducted. Modest, yet significant, positive associations were evident between the highest degree obtained by a teacher and teacher efficacy, including: (a) their belief that they can make their expectations clear about classroom behavior ($t(28) = .38, p = .05$), (b) belief that they can calm a child who is disruptive or noisy ($t(28) = .38, p = .05$), and (c) their belief that they can keep a few problem children from ruining group activities ($t(28) = .43, p = .02$) (Table 12). Teachers did not differ in perceived efficacy based on their number of years of

experience. When considering experience with multicultural teaching settings, teacher multicultural training was positively associated with the teachers' belief that they can handle defiant children ($t(28) = .50, p < .01$). Further analysis showed that teachers who indicated they were more comfortable teaching minority or diverse students were less likely to believe they could establish routines to keep activities running smoothly ($t(28) = -.55, p < .01$) (Table 13).

Implicit Association Test

Next, I examined whether teachers' implicit biases, assessed using the IAT, were associated with their education and experience, their perceived efficacy, and their evaluations of students' behavior. Overall, teachers' IAT scores indicated a positive mean difference score, indicating teachers had stronger pleasant associations with White name stimuli compared to Black name stimuli ($M = .45, SD = .38, t(10) = 3.81, p = .003$). The IAT was found to be reliable using split-half Spearman-Brown correction analyses ($r = .80$). Correlational analyses indicated that IAT D-scores, in which higher values indicate pro-White attitudes, yielded a strong, positive correlation with the number of years of teaching experience ($t(10) = .73, p = .02$) (Table 15). Further analyses examining associations between implicit bias as teachers' responses to typical behavior indicated a moderate, positive relationship, with more biased teachers reporting greater tolerance of typical behavior ($t(11) = .65, p = .03$) (Table 16). Teachers' d-scores were not correlated with any other responses to children's typical behavior. Next, I examined the correlations between teachers' implicit biases and their responses to the disruptive behavior vignettes. Among this set of analyses only one relationship was significant at $p < .05$. teachers with higher d-scores were less likely to not respond at all to children's disruptive behavior, $r = -.65, p < .05$ (Table 17). Lastly, I correlated teachers' implicit biases on the IAT and their

perceptions of self-efficacy. Teachers with higher d-scores reported stronger beliefs that they provide clear expectation about classroom behavior ($t(10) = .68$, $p = .03$) (Table 18). No other association with self-efficacy were found. Of these relationships, the experience of a teacher as depicted by years of teaching experience had the strongest relationship with pro-White attitudes.

Perception of Vignette Character Race and Gender

In order to determine if teachers accurately perceived the correct race and gender of vignette characters based on the name provided, teachers reported the demographic they felt best represented the character from the vignette they were presented with. As seen in Table 19, all teachers correctly perceived the gender of the student displaying typical behavior. However, only 68% correctly perceived the race of that child.

<div align="center">

Discussion

</div>

The goal of the current study was to explore the interplay between implicit associations help by teachers and decisions made regarding student behaviors. Numerous studies have considered the implications of child characteristics such as race and gender on the relationships with and expectations of students held by teachers. Few studies among this body of research, however, have focused on using direct measures of implicit associations held by teachers and considering how these implicit beliefs impact their interactions with students (e.g., van den Bergh, Denessen, Hornstra, Voeten & Holland, 2010; Jacoby-Senghor, Sinclair & Shelton, 2016). Thus, in the present study, I examined the differences in teacher expectations of relationships and the likelihood to intervene in typical and disruptive behaviors as a result of differing student race and gender. Further, I also explored the possible roles of implicit racial biases, as well as teacher efficacy for classroom management.

Overall, I hypothesized that, teachers would be more likely to perceive Black and male students to have more problem behaviors and expect poorer quality teacher-student relationships even when presented with similar scenarios. I predicted that these perceptions would be due to implicit biases held by teachers. Results from this study provided mixed support for these hypotheses. While student race and gender did seem to have some effect on teachers' perceptions of displayed behavior, the effects were not always as predicted.

Aligned with my initial hypothesis, teachers indicated they would be less tolerant of Black students' disruptive behavior than White students'. Teachers also reported being more likely to be happy and worried about White students displaying disruptive behavior compared to their Black peers. Researchers with similar findings allude to the notion that teachers may hold different expectations of behavioral norms for Black and White students. They may believe that Black students should or do act a certain way which would allow for disruptive behaviors to be seen as normal (Noltemeyer, Kunesh, Hostutler, Frato & Sarr-Kerman, 2012). Additional literature suggests teachers are, in fact, more likely to use positive corrective actions with a White student than with a Black student displaying similar behaviors. Some have suggested that this leads teachers to attempt to manage White student behavior, while allowing Black student behavior to escalate to the point of requiring special attention such as referral to special education (e.g, Emihovich, 1982).

Also aligned with hypotheses was the finding that teachers were more likely to report feeling angry and worried about behavior exhibited by typically behaving boys than girls. Contrary to expectations, variations in the likelihood to respond to behaviors based on race and gender differences was not universal for both typical and disruptive behaviors.

When considering the relationship among implicit racial bias with the various teacher characteristics, response behaviors, and efficacy, interesting findings emerged. Correlational analysis indicated a strong positive relationship between years of teaching experience and IAT results that indicate pro-White attitudes. This seems to suggest that teachers with more experience in the classroom hold stronger pro-White attitudes. While no direct link has been made in the literature between teaching experience and pro-White attitudes, the literature has indicated that practicing teachers with fewer years of teaching experience are less likely to ignore and more likely to directly address behaviors than teachers with more years of experience (Noltemeyer, Kunesh, Hostutler, Frato & Sarr-Kerman, 2012). However, it should be noted that, despite interesting trends emerging based on the implied student race in the Noltemeyer et al. (2012) study, none was statistically significant. Still, these differences in response to behavior among newer and more experienced teachers suggest that teachers with more time spent in the classroom are relying on their experiences, which could be influenced by or influencing their implicit beliefs. The literature suggests that implicit attitudes develop from repeated exposure to pairings of a social group with a particular characteristic such as disruptive behavior or low achievement (Peterson, Rubie-Davies, Osborne & Sibley, 2016). As teachers move up in tenure, they may be less likely to have students of color, as minority students are often assigned to low-track classrooms with less experienced teachers, from which they can seldom escape (Weissglass, 2001). With fewer students of color in their classrooms, more experienced teachers may rely more heavily on implicit attitudes and stereotypes when encountering situations which require decision making regarding behaviors.

Although the literature has indicated that students perform best when the implicit attitudes of their teacher favor their racial group (e.g., Peterson, Rubie-Davies, Osborne & Sibley, 2016), the present study did not see any significant findings regarding expectations of academic development or performance. There are two possible explanations for this. First, as the mean IAT D-score indicated a sample average showing pro-White attitudes, there may not have been a large enough pro-Black, or neutral attitudes for relationships between implicit attitudes and expected academic outcomes to be observed. Second, due to small sample size there may not have been enough diversity for an educator with non-White favoritism beliefs to emerge.

When assessing if teachers perceived the correct race and gender of vignette characters based on the name provided, all teachers correctly perceived the gender of the student displaying typical behavior and 68% correctly perceived the race of that child. However, when considering the vignette displaying disruptive behavior, 95% of teachers correctly identified the gender of the child and 84% correctly identified the race of the child. This suggests teachers may be more perceptive, and thus relying on their implicit beliefs, more for students exhibiting disruptive behavior than those who are not.

Racial Disparities in Discipline and Special Education

Disproportionate perceptions of student behavior on the basis of race is a persistent social-justice issue. Because of legislative requirements established by the No Child Left Behind Act of 2001, Codes of Conduct were created by schools to outline student responsibilities and set consequences for students' misbehaviors to create a safe learning environment. However, in doing so, schools and school districts put into practice inconsistent policies regarding the course of action for when behavioral problems arise. As a result, Black students face disproportionate

rates of discipline (Brown, 2007; Kunesh & Noltemeyer, 2015; Gibson, 2015), and higher rates of special education referral (Decker, Dona Christenson, 2007). In turn, children, particularly those of color, are being removed from mainstream learning environments by means of teacher referral driven by perception and stereotypes.

Given the fast-paced, high stress classroom environment, teachers are likely to act on stereotypes when making decisions regarding classroom management and addressing misbehavior as a heuristic shortcut (Kunesh & Noltemeyer, 2015). Consistent with results from the present study, research with preservice teachers has shown differences in teacher perception of Black and White student behavior. Work by Kunesh and Noltemeyer (2014) showed preservice teachers were more likely to believe Black students would misbehave again in comparison to their White peers. This aligns with the stereotype model, suggesting that stereotypes affect people's attributions about the stability, or likely recurrence, of behaviors. These results support the notion that, when using implicit stereotypes, teachers may be more likely to make disciplinary and special education referrals based on the belief that their behavior is stable and likely to recur in the future without being addressed.

Disciplinary Actions, Suspension and Expulsion

To deter behavioral problems, suspensions and expulsions are used as a common discipline practice. However, such practices have a major impact on student achievement, especially for students of color. For one, by taking a student out of school, their academic progress is hindered. Additionally, and arguably just as important, peer and teacher relationships and socioemotional development are jeopardized as school bonds are weakened. Studies by

Brown (2007) and Gibson (2015) highlight the various implications of suspension on emotional and relational development.

Impacts on classroom relationships. In one study using a mix of open- and closed-ended questionnaires, Brown (2007) examined the experiences of 37 students suspended or expelled from their school who were attending an alternative high school. Questionnaires were used to analyze the significance of school exclusion and prolonged absences on academic, social, and aspects of the schooling experience. Findings indicated that school exclusion had exacerbating effects, including increased school absences beyond the expulsion term, a decrease in opportunities to form strong relationships with adults, and increased behavior problems when returning to school as a coping mechanism to avoid the embarrassment about their weakened academic skills (Brown, 2007). Further results showed students with more exclusion fostered greater distrust of both school adults and disciplinary procedures and did not have good relationships with teachers and staff. Findings of negative emotions towards school and school figures are not unique to Brown's study. In a different study conducted by Gibson et al. (2015), students described feeling angry and upset about being suspended. Relationships with friends and family members were strained. Upon returning to school, students reported being treated differently by educators and were avoided by certain peers. In addition, students felt that the suspensions had negatively impacted their school performance due to missed assignments and that they had problems making up work.

In many classrooms, cultural discontinuity or misunderstanding may create a cycle of miscommunication and confrontation for Black students, especially male adolescents. Although focused on adolescents, Townsend (2000) suggests that many teachers, especially those of

European-American background, may be unfamiliar and even uncomfortable with Black students, especially if their anxiety is paired with a misunderstanding of cultural norms of social interaction. This cultural discontinuity could play a role in the in findings from the present study which indicate teachers are less likely to be worried or angry with Black student's disruptive behavior, as noted previously.

Limitations

Careful consideration should be given to the limitations when reviewing these results. First, this study was limited by the small number of participants who completed the survey. In future studies, a different method of sampling should be used to yield a larger sample. For example, using a targeted survey panel (e.g., Amazon Mechanical Turk or SurveyMonkey Audience) to obtain respondents, partnering with a large national teaching organization to distribute the survey, or including an incentive for participation such as a small monetary amount or classroom supplies might expand the pool. In the current sample, all but one participant agreed, either somewhat (n = 8) or strongly (n = 22) that they were comfortable teaching in multicultural and diverse settings. Having participants who were not as comfortable as respondents in this sample would have likely resulted in different results, particularly regarding implicit biases. In addition, with a larger sample, further analysis such as investigating the impact of regional differences could have been considered.

Another considerable limitation regarding the sample was the drop-off in respondents over the duration of the survey administration. In total, 274 respondents "accepted" the terms of the study, however only 30 completed the demographic portion of the survey. By the last section, regarding the perceptions of vignette characters, only 19 respondents had completed the final two

questions. This may be due in part to technical errors associated with the survey in the IAT section. This could be explained by three potential factors. First, responses were only recorded if the respondent clicked "next" on the survey and allowed the next question to fully load. Second, the IAT phase required respondents to hit the spacebar on their keyboard to start the test, and the "next" button to advance. Although this was noted in the onscreen instructions, participants who did not hit the spacebar would advance to the next section of the survey without recording results for that IAT block, resulting in unusable results. Finally, as teachers are busy and their time is limited, respondents may have started the survey and then failed to return to the window, either because the session timed out or because they accidentally closed the tab. It should be noted, however, that because I did not have access to respondents' email addresses or other contact information, there was no way to follow-up with participants to inquire about the incomplete responses.

When studying implicit beliefs, it is important to consider the effects of priming on respondents. Priming refers to the phenomena in which exposure to a stimulus influences the response to another stimulus. It is possible that, through the teacher demographics survey, questions regarding multicultural class training and comfort level teaching in multicultural settings primed respondents, thus heightening their awareness of how they should respond to questions regarding Black students.

Another drawback to this study is that there were no means to compare teachers' expected and self-reported responses to actual classroom behaviors. Although the focus of the current study was to explore the impact of implicit beliefs, we know that implicit beliefs can manifest into discriminatory behaviors (Greenwald et al., 1985; Shelton & Richeson, 2006).

When presented with situations where teachers must act quickly to remain in control of their classrooms, the pressure may drive teachers to act on their implicit beliefs. Future studies should consider employing observational measures to assess the consistency between expected and actual responses to disruptive, problem behaviors.

Implications

Findings reported here and elsewhere have implications for practice. First, administrators and teachers should prioritize strategies for advancing the academic and socioemotional development of behaviorally at-risk students, especially students of color (Brown, 2007). As present practices fail to account for cultural differences of minority groups, zero tolerance disciplinary actions are implemented with minority students at disproportionate rates, compounding the issues they are working to resolve. When researchers and education policy makers focus on developing practices aimed at making discipline more equitable, most focus their attention on environmental changes such as social-emotional learning (i.e., approaches that improve students' ability to understand social interactions and regulate their emotions), relationship building (i.e., approaches such as restorative practices), and structural interventions (i.e., changing disciplinary codes of conduct; Skiba & Losen, 2016). However, discipline strategies are also dependent on teachers' biases, not just the environment and behavior of the student (Okonofua & Eberhardt, 2015). Thus, the importance of creating bias-free classrooms and respectful school environments emerges. Further, the present study found IAT results correlated to years of teaching experience and racial differences in perceptions of behavior. Together, these results make it clear that policies need to be established that acknowledge the biases of actors in the system.

In order for such changes to occur, educators need to be provided with training opportunities aimed at changing implicit beliefs. Such trainings would require new information that would encourage individuals re-interpret their existing knowledge or understanding of the information, ultimately challenging their implicit beliefs (Staats et al., 2016). Teacher training in appropriate and culturally competent methods of classroom management is likely, then, to be an effective way to address racial disparities in school discipline. Appropriate steps should be taken to ensure adequate training in classroom management for the ever-growing diversity in American classrooms. Effective training should focus on culturally competent practices that enable new teachers to address the needs of minority students. As suggested by Townsend (2000), methods such as relationship-building strategies, knowledge of linguistic or dialectic patterns of Black youth, and increased opportunity for participation in school activities are important components of classroom management that may reduce cultural discontinuity and enhance the experience of Black students. By implementing such practices, teachers may be able to become more aware of cultural differences and rely less heavily on stereotypes to create more inclusive and equitable classrooms.

References

Alexander, K. L., Entwisle, D. R., Blyth, D. A., & McAdoo, H. P. (1988). Achievement in the first 2 years of school: Patterns and processes. *Monographs of the society for Research in Child Development*, *53,* 1-157. http://dx.doi.org/10.2307/1166081

Aud, S., Fox, M., & Kewal-Ramani, A. (2010). *Status and trends in the education of racial and ethnic groups (NCES 2010 – 015).* U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. Retrieved from https://ies.ed.gov/pubsearch/pubsinfo.asp?pubid=2010015

Birch, S. H. & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology*, *35*, 61–79. https://doi.org/10.1016/S0022-4405(96)00029-5

Bitterman, A., Gray, L. & Goldring, R. (2013). *Characteristics of Public and Private Elementary and Secondary Schools in the United States: Results From the 2011-12 Schools and Staffing Survey (NCES 2013-312).* U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. Retrieved from http://ies.ed.gov/pubsearch/pubsinfo.asp?pubid=2013312

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner (Ed.) *Handbook of Child Development: Vol. 1. Theoretical Models Of Human Development* (6th ed., pp. 793-828). Hoboken, NJ: Wiley. https://doi.org/10.1002/9780470147658

Brophy, J. (1986). Teacher influences on student achievement. *American Psychologist*, *41*, 1069–1077. https://doi.org/10.1037/0003-066X.41.10.1069

Brown, T. M. (2007). Lost and turned out: Academic, social, and emotional experiences of

    students excluded from school. *Urban Education*, *42*, 432-455.

    https://doi.org/10.1177/0042085907304947

Bullock, A. (2011). *"They're Only Preschoolers, I Think I Can Manage Them!" An Examination*

    Of Teacher Efficacy In Early Childhood Educators (Unpublished doctoral dissertation).

    Carleton University, Ottawa, ON, Canada. Retreieved from

    https://curve.carleton.ca/b3d42b09-840f-4a79-afaf-2098f6e34330

Carpenter, T. P., Pullig, C. P., Pogacar, R., Kouril, M., LaBouff, J. & Isenberg, N. (2017).

    Measuring implicit cognition in Qualtrics with iatgen: A free, user-friendly tool for building

    survey-based IATs. Poster session presented at the 18th Annual Meeting of the Society for

    Personality and Social Psychology, San Antonio, TX. Retrieved from

    https://iatgen.files.wordpress.com/2016/08/iat-poster-large1.pdf

Cherng, H. Y. S., & Halpin, P. F. (2016). The importance of minority teachers: Student

    perceptions of minority versus White teachers. *Educational Researcher*, *45*, 407-420.

    https://doi.org/10.3102/0013189X16671718

Coplan, R. J., Hughes, K., Bosacki, S. & Rose-Krasnor, L. (2011). Is silence golden? Elementary

    school teachers' strategies and beliefs regarding hypothetical shy/quiet and

    exuberant/talkative children. *Journal of Educational Psychology*, *103*, 939–951.

    https://doi.org/10.1037/a0024551

Dasgupta, N., McGhee, D. E., Greenwald, A. G., & Banaji, M. R. (2000). Automatic preference

    for White Americans: Eliminating the familiarity explanation. *Journal of Experimental*

    Social Psychology, *36*, 316-328. https://doi.org/10.1006/jesp.1999.1418

Decker, D. M., Dona, D. P. & Christenson, S. L. (2007). Behaviorally at-risk African American students: The importance of student–teacher relationships for student outcomes. *Journal of School Psychology*, *45*, 83–109. https://doi.org/10.1016/j.jsp.2006.09.004

Downer, J. T., Goble, P., Myers, S. S. & Pianta, R. C. (2016). Teacher-child racial/ethnic match within pre-kindergarten classrooms and children's early school adjustment. *Early Childhood Research Quarterly*, *37*, 26–38. https://doi.org/10.1016/j.ecresq.2016.02.007

Egalite, A. J., Kisida, B. & Winters, M. A. (2015). Representation in the classroom: The effect of own-race teachers on student achievement. *Economics of Education Review*, *45*, 44-52. https://doi.org/10.1016/j.econedurev.2015.01.007

Ehrenberg, R. G., Goldhaber, D. D., & Brewer, D. J. (1995). Do teachers' race, gender, and ethnicity matter? Evidence from the National Education Longitudinal Study of 1988. *Industrial and Labor Relations Review*, *48*, 547-561. https://doi.org/10.1177/001979399504800312

Emihovich, C. A. (1983). The color of misbehaving: Two case studies of deviant boys. *Journal of Black Studies, 13*, 259-274. https://doi.org/10.1177/002193478301300301

Ewing, A. R. & Taylor, A. R. (2009). The role of child gender and ethnicity in teacher-child relationship quality and children's behavioral adjustment in preschool. *Early Childhood Research Quarterly, 24*, 92-105. https://doi.org/10.1016/j.ecresq.2008.09.002

Feistritzer, C. E., Griffin, S. & Linnajarvi, A. (2011). *Profile of teachers in the US, 2011 (NCES 2013-312).* U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. Retrieved from https://www.edweek.org/media/pot2011final-blog.pdf

Ferguson, R. F. (2003). Teachers' perceptions and expectations and the Black-White test score

gap. *Urban Education*, *38*, 1-49. https://doi.org/10.1177/0042085903254970

Fryer Jr, R. G., & Levitt, S. D. (2004). Understanding the black-white test score gap in the first

two years of school. *The Review of Economics and Statistics*, *86*, 447-464. https://doi.org/

10.1162/003465304323031049

Gershenson, S., Hart, C. M. D., Lindsay, C. A., & Papageorge, N. W. *The long-run impacts of*

samerace teachers. Bonn, Germany: IZA – Institute of Labor Economics, March 2017.

Retrieved from http://ftp.iza.org/dp10630.pdf

Gibson, P. A., Wilcon, R., Haight, W., Kayama, M. & Marshall, J. M. (2014). The role of race in

the out-of-school suspensions of African-American students: The perspectives of students

with suspensions, their parents and educators. *Children and Youth Services Review, 47*, 274-

282. https://doi.org/10.1016/j.childyouth.2014.09.020

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and

stereotypes. *Psychological review*, *102*, 4-27. https://doi.org/ 0.1037/0033-295X.102.1.4

Greenwald, A., & Krieger, L. (2006). Implicit Bias: Scientific Foundations. *California Law*

Review, 94, 945-967. https://doi.org/10.2307/20439056

Greenwald, A. G., McGhee, D. E. & Schwartz, J. L. (1998). Measuring individual differences in

implicit cognition: The implicit association test. *Journal of Personality and Social*

Psychology, *74*, 1464-1480. https://doi.org/10.1037/0022-3514.74.6.1464

Gregory, A., Skiba, R. J., & Noguera, P. A. (2010). The achievement gap and the discipline

gap. *Educational Researcher*, *39*, 59-68. https://doi.org/10.3102/0013189X09357621

Hamre, B. K. & Pianta, R. C. (2001). Early teacher-child relationships and the trajectory of

children's school outcomes through eighth grade. *Child Development*, *72*, 625-638.

https://doi.org/10.1111/1467-8624.00301

Hollins, E. R., King, J. E., & Hayman, W. C. (Eds.). (1994). *Teaching diverse populations: Formulating a knowledge base.* Albany, NY: State University of New York Press.

Howes, C. & Matheson, C. C. (1992). Contextual constraints on the concordance of mother-child and teacher-child relationships. *New Directions for Child and Adolescent Development*, *57*, 25-40. https://doi.org/10.1002/cd.23219925704

Ingersoll, R., & May, H. (2011). *Recruitment, retention and the minority teacher shortage.* Retrieved from http://repository.upenn.edu/gse_pubs/226

Jacoby, L. L. & Witherspoon, D. (1982). Remembering without awareness. *Canadian Journal of Psychology/Revue Canadienne de Psychologie*, *36*, 300-324. https://doi.org/10.1037/h0080638

Jacoby-Senghor, D. S., Sinclair, S. & Shelton, J. N. (2016). A lesson in bias: The relationship between implicit racial bias and performance in pedagogical contexts. *Journal of Experimental Social Psychology*, *63*, 50-55. https://doi.org/10.1016/j.jesp.2015.10.010

Jerome, E. M., Hamre, B. K. & Pianta, R. C. (2009). Teacher-child relationships from kindergarten to sixth grade: Early childhood predictors of teacher-perceived conflict and closeness. *Social Development*, *18*, 915-945. https://doi.org/10.1111/j.1467-9507.2008.00508.x

Jerome, E. M. & Pianta, R. C. (2008). Teacher-student relationships. In Good, T. (Ed.) *21st century education: A reference handbook* (pp. 158-164). Thousand Oaks, CA: Sage. http://dx.doi.org/10.4135/9781412964012.n68

King, J. E. (Ed.) (2005). *Black education: A transformative research and action agenda for the new century.* Mahwah, NJ: Lawrence Erlbaum Assocaites. https://doi.org/10.4324/9781410613912

Koepke, M. F. & Harkins, D. A. (2008). Conflict in the classroom: Gender differences in the teacher–child relationship. *Early Education and Development*, *19*, 843-864. http://dx.doi.org/10.1080/10409280802516108

Kunesh, C. E., & Noltemeyer, A. (2015). Understanding disciplinary disproportionality: Stereotypes shape pre-service teachers' beliefs about black boys' behavior. *Urban Education*, 1-28. https://doi.org/10.1177/0042085915623337

Ladson-Billings, G. (2006). From the achievement gap to the education debt: Understanding achievement in U.S. schools. *Educational Researcher*, *35*, 3-12. https://doi.org/10.3102/0013189X035007003

Murray, C., Waas, G. A. & Murray, K. M. (2008). Child race and gender as moderators of the association between teacher-child relationships and school adjustment. *Psychology in the Schools*, *45*, 562–578. https://doi.org/10.1002/pits.20324

Nicholson-Crotty, J., Grissom, J. A. & Nicholson-Crotty, S. (2011). Bureaucratic representation, distributional equity, and democratic values in the administration of public programs. *The Journal of Politics*, *73*, 582–596. https://doi.org/10.1017/S0022381611000144

Noltemeyer, A., Kunesh, C., Hostutler, C., Frato, P. & Sarr-Kerman, B. J. (2012). The effects of student and teacher characteristics on teacher impressions of-and responses to-student behaviors. *International Education Studies*, *5*, 96-111. http://dx.doi.org/10.5539/ies.v5n4p96

Okonofua, J. A., & Eberhardt, J. L. (2015). Two strikes: Race and the disciplining of young students. *Psychological Science*, *26*, 617-624. https://doi.org/10.1177/0956797615570365

Flores, A. (2007). Examining disparities in mathematics education: Achievement gap or opportunity gap? *The High School Journal*, *91*, 29-42. https:doi.org/ 10.1353/hsj.2007.0022

Oswald, F. L., Mitchell, G., Blanton, H., Jaccard, J. & Tetlock, P. E. (2013). Predicting ethnic and racial discrimination: A meta-analysis of IAT criterion studies. *Journal of Personality and Social Psychology*, *105*, 171–92. https://doi.org/10.1037/a0032734

Ouazad, A. (2014). Assessed by a teacher like me: Race and teacher assessments. *Education*, *9*, 334-372. https://doi.org/ 10.1162/EDFP_a_00136

Patterson, C. J., Kupersmidt, J. B., & Vaden, N. A. (1990). Income level, gender, ethnicity, and household composition as predictors of children's school-based competence. *Child Development*, *61*, 485-494. https://doi.org/ 10.1111/j.1467-8624.1990.tb02794.x

Peterson, E. R., Rubie-Davies, C., Osborne, D. & Sibley, C. (2016). Teachers' explicit expectations and implicit prejudiced attitudes to educational achievement: Relations with student achievement and the ethnic achievement gap. *Learning and Instruction*, *42*, 123-140. https://doi.org/10.1016/j.learninstruc.2016.01.010

Pianta, R. C. (1994). Patterns of relationships between children and kindergarten teachers. *Journal of school psychology*, *32*, 15-31. https://doi.org/10.1016/0022-4405(94)90026-4

Pianta, R.C. (1999) *Enhancing Relationships between Children and Teachers*. American Psychological Association, Washington DC. http://dx.doi.org/10.1037/10314-000

Pianta, R. C., Steinberg, M. S. & Rollins, K. B. (1995). The first two years of school: Teacher-

child relationships and deflections in children's classroom adjustment. *Development and*

   Psychopathology, *7*, 295-312. https://doi.org/10.1017/S0954579400006519

Pianta, R. C. & Stuhlman, M. W. (2004). Teacher-child relationships and children's success in

   the first years of school. *Child Development*, *33*, 444-458. https://doi.org/10.1037/10314-

   000

Pitts, D. W. (2007). Representative bureaucracy, ethnicity, and public schools: Examining the

   link between representation and performance. *Administration & Society*, *39*, 497-526.

   https://doi.org/10.1177/0095399707303129

Richeson, J. A., Trawalter, S. & Shelton, J. N. (2005). African Americans' implicit racial

   attitudes and the depletion of executive function after interracial interactions. *Social*

   Cognition, *23*, 336-352. https://doi.org/10.1521/soco.2005.23.4.336

Rist, R. (1970). Student social class and teacher expectations: The self-fulfilling prophecy in

   ghetto education. *Harvard Educational Review*, *40*, 411-451.

   https://doi.org/10.17763/haer.40.3.h0m026p670k618q3

Rudman, L. A., Ashmore, R. D. & Gary, M. L. (2001). " Unlearning" automatic biases: the

   malleability of implicit prejudice and stereotypes. *Journal of Personality and Social*

   Psychology, *81*, 856-868. http://dx.doi.org/10.1037/0022-3514.81.5.856

Saft, E. W. & Pianta, R. C. (2001). Teachers' perceptions of their relationships with students:

   Effects of child age, gender, and ethnicity of teachers and children. *School Psychology*

   Quarterly, *16*, 125-141. https://doi.org/10.1521/scpq.16.2.125.18698

Shelton, J. N. & Richeson, J. A. (2006). Ethnic minorities' racial attitudes and contact

   experiences with white people. *Cultural Diversity and Ethnic Minority Psychology*, *12*, 149-

164. http://dx.doi.org/10.1037/1099-9809.12.1.149

Skiba, R. J. & Losen, D. J. (2016). From reaction to prevention: Turning the page on school

discipline. *American Educator*, *39*, 4-11. https://eric.ed.gov/?id=EJ1086522

Snyder, T. D., de Brey, C., & Dillow, S. A. (2016). *Digest of Education Statistics 2014 (NCES*

2016-006). U.S. Department of Education, National Center for Education Statistics.

Washington, DC: U.S. Government Printing Office. Retrieved from

http://files.eric.ed.gov/fulltext/ED565675.pdf

Staats, C., Capatosto, K., Wright, R. A. & Jackson, V. W. (2016). *State of the Science: Implicit*

Bias Review. Columbus, OH: Kirwan Institute for the Study of Race and Ethnicity, The

Ohio State University. Retrieved from http://kirwaninstitute.osu.edu/my-product/2016-state-

of-the-science-implicit-bias-review/

Stangor, C. & O'Brien, J. D. (2010). Stereotyping. In J. M. Levine & M. A. Hogg (Eds.),

Encyclopedia of Group Processes & Intergroup Relations (pp. 857–862). Thousand Oaks,

California: SAGE. https://doi.org/10.4135/9781412972017.n265

Tenenbaum, H. R. & Ruck, M. D. (2007). Are teachers' expectations different for racial minority

than for European American students? A meta-analysis. *Journal of Educational Psychology*,

99, 253–273. https://doi.org/10.1037/0022-0663.99.2.253

Theobald, N. A. & Haider-Markel, D. P. (2009). Race, bureaucracy, and symbolic representation:

Interactions between citizens and police. *Journal of Public Administration Research and*

Theory, *19*, 409–426. https://doi.org/10.1093/jopart/mun006

Townsend, B. (2000). Disproportionate discipline of African American children and youth:

Culturally-responsive strategies for reducing school suspensions and expulsions.

Exceptional Children, 66, 381-391. https://doi.org/10.1177/001440290006600308

Tschannen-Moran, M. & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*, 783-805. https://doi.org/10.1016/S0742-051X(01)00036-1

U.S. Department of Education Office for Civil Rights. (2016). *A First Look: Key Data Highlights on Equity and Opportunity Gaps in our Nation's Public Schools.* U.S. Department of Education. Washington, DC: U.S. Government Printing Office. Retrieved from https://www2.ed.gov/about/offices/list/ocr/docs/2013-14-first-look.pdf

van den Bergh, L., Denessen, E., Hornstra, L., Voeten, M., & Holland, R. W. (2010). The implicit prejudiced attitudes of teachers: Relations to teacher expectations and the ethnic achievement gap. *American Educational Research Journal*, *47*, 497-527. https://doi.org/10.3102/0002831209353594

Vescio, T. K. & Bloodhart, B. (2010). Discrimination. In J. M. Levine & M. A. Hogg (Eds.), *Encyclopedia of Group Processes & Intergroup Relations* (pp. 212-218). Thousand Oaks, California: SAGE. https://doi.org/10.4135/9781412972017.n65

Weissglass, J. (2001, August 8). Racism and the achievement gap. *Education Week*, *20*, 49-72. Retrieved from http://www.edweek.org/ew/articles/2001/08/08/43weissglass.h20.html

Zimmerman, R. S., Khoury, E. L., Vega, W. A., Gil, A. G. & Warheit, G. J. (1995). Teacher and parent perceptions of behavior problems among a sample of African American, Hispanic, and non-Hispanic white students. *American Journal of Community Psychology*, *23*, 181–197. https://doi.org/10.1007/BF02506935

Table 1. Teacher demographics

Variable	n	%
Gender		
Female	26	81.25
Male	6	18.75
Race		
White	27	84.4
Black	4	12.5
Hispanic/Latino	3	9.4
Pacific Islander/ Native Hawaiian	0	0.0
Asian	0	0.0
American Indian/Alaskan	1	3.1
Highest Degree Completed		
Less than a high school diploma	0	0.0
High school diploma	0	0.0
Associate's degree	0	0.0
Bachelor's degree	10	31.3
Master's or specialist degree	20	62.5
Doctorate	2	6.3

Note. Percentages may not sum to 100% due to rounding to multiple identifiers or data that were unreported.

Table 2. Teacher's current classroom characteristics

Variable	*n*	*%*
Grade Currently Teaching		
Kindergarten	2	6.3
Grade 1	3	9.4
Grade 2	2	6.3
Grade 3	5	15.6
Grade 4	3	9.4
Grade 5	6	18.8
Grade 6	4	12.5
Region of the United States Currently Teaching		
North-East	4	12.5
South	3	9.4
Mid-West	15	46.9
West	8	25.0
Multicultural education training		
None	3	9.4
Workshop/Conference	21	65.6
College courses	20	62.5
Degree in area	1	3.1

Note. Percentages may not sum to 100% due to rounding to multiple identifiers or data that were unreported.

Table 3. Reported Teaching Experience

Variable	M	SD	Range
Years teaching	14.44	11.39	1 – 40
Grade teaching	3.52	1.92	K – 6th

Table 4. Teacher's comfort teaching minority or diverse students

Variable	n	%
Strongly agree	22	68.7
Somewhat agree	8	25.0
Neither agree nor disagree	1	3.1

Note. Percentages may not sum to 100% due to rounding to multiple identifiers or data that were unreported.

Table 5. *Blackness Name Index Values for Selected Names*				
Name	BNI(White)	BNI(Hispanic)	BNI(Asian)	BNI(Native)
Xzavier	100.0%	85.0%	100.0%	100.0%
Aniyah	100.0%	92.2%	100.0%	100.0%

Note. From the 2011 birth certificate data, 2900 unique names were identified. In developing BNI for vignette characters, unisex names were omitted. Further, names with a BNI(Hispanic), BNI(Asian), BNI(Native) of less than 80 were also disqualified from vignette name selection.

Table 6. Whiteness Name Index Values for Selected Names				
Name	WNI$_{(Black)}$	WNI$_{(Hispanic)}$	WNI$_{(Asian)}$	WNI$_{(Native)}$
Jackson	100.0%	87.1%	100.0%	100.0%
Charlotte	100.0%	83.4%	100.0%	100.0%

Note. From the 2011 birth certificate data, 2900 unique names were identified. In developing WNI for vignette characters, unisex names were omitted. Further, names with a WNI(Hispanic), WNI(Asian), or WNI(Native), of less than 80 were also disqualified from vignette name selection.

Table 7. Descriptive Statistics for Teacher Response to Typical and Disruptive Behaviors

	Typical					*Disruptive*				
	N	Mean	Min	Max	SD	N	Mean	Min	Max	SD
Response to Behavior										
Nothing	30	4.00	1	5	1.23	29	1.52	1	4	0.79
Intervene	30	1.40	1	4	0.77	29	4.45	4	5	0.51
Tolerant of Behavior	30	4.67	4	5	0.48	29	2.34	1	4	1.01
Encouraging of Behavior	30	4.30	2	5	0.79	29	1.72	1	4	0.84
Emotional Response to Behavior										
Happy	30	4.13	1	5	0.97	29	1.66	1	4	0.81
Angry	30	1.13	1	3	0.43	29	2.55	1	5	1.21
Worried	30	1.27	1	4	0.64	29	3.69	1	5	1.31
Behavior Impact										
Relationships with Peers	30	3.90	2	5	0.85	29	1.62	1	3	0.56
Relationships with Teachers	30	4.03	2	5	0.89	29	2.00	1	3	0.60
Academic Development	30	4.00	2	5	0.79	29	2.10	1	3	0.72
Performance Academically	30	4.23	3	5	0.68	29	2.93	1	5	0.88
Increase the Amount or Rigor of Work Provided to Student in Response to Behavior	30	3.37	1	5	1.07	29	2.90	1	5	1.08
Strategies										
Feels Adequately Prepared to Deal with The Student	30	4.43	3	5	0.63	29	3.97	2	5	0.87
Seek Help from Home	30	2.10	1	4	1.19	29	4.03	2	5	0.82
Seek Help from School Staff Member	30	1.63	1	4	0.85	29	3.62	1	5	1.21

Note: After completing each vignette set, teachers were asked to rate on a scale ranging from 1 (not at all/extremely unlikely) to 5 (very strongly/extremely likely) the level of concern and the likely use of strategies to respond to the depicted child behaviors.

Table 8. Descriptive Statistics for Teacher Efficacy Scale

	N	Mean	Min	Max	SD
Control disruptive behavior	28	4.39	2	5	0.74
Make expectations clear	28	4.79	4	5	0.42
Establish routines	28	4.71	3	5	0.54
Ability to get children to follow rules	28	4.14	2	5	0.76
Calm child down who is disruptive or noisy	28	4.11	2	5	0.79
Establish a classroom management system	28	4.32	2	5	0.77
Keep a few problem children from ruining a group activity	28	4.07	2	5	0.81
Respond to defiant children?	28	4.11	2	5	0.92

Note. Questionnaire were designed to help gain a better understanding of the kinds of things that create challenges for teachers. Teachers were asked to report on an eight-point scale from 1 (not at all) to 5 (a great deal) how confident they were in their ability to effectively implement the following classroom management techniques.

Table 9. Paired Samples t Test for Mean Typical and Disruptive Behaviors							
	Mean	SD	SE	Lower	Upper	t	df	Sig
Response to Behavior								
Nothing	2.52	1.57	.29	1.92	3.12	8.62	28	<0.001**
Intervene	-3.03	1.05	0.120	-3.43	-2.63	-15.54	28	<0.001**
Tolerant of Behavior	2.31	1.26	0.23	1.83	2.79	9.90	28	<0.001**
Encouraging of Behavior	2.59	1.18	0.22	2.14	3.04	11.80	28	<0.001**
Emotional Response to Behavior								
Happy	2.45	1.24	0.23	1.98	2.92	10.62	28	<0.001**
Angry	-1.41	1.12	0.21	-1.84	-0.99	-6.81	28	<0.001**
Worried	-2.41	1.38	0.26	-2.94	-1.89	-9.45	28	<0.001**
Behavior Impact								
Relationships with Peers	2.28	1.03	0.19	1.88	2.67	11.88	28	<0.001**
Relationships with Teachers	2.03	1.18	0.22	1.59	2.48	9.29	28	<0.001**
Academic Development	1.90	1.21	0.22	1.44	2.36	8.47	28	<0.001**
Performance Academically Increase	1.28	1.36	0.25	0.76	1.79	5.05	28	<0.001**
Amount/Rigor of Work Provided to Student in Response to Behavior	0.45	1.30	0.24	-0.05	0.94	1.86	28	0.07
Strategies								
Feels Adequately Prepared to Deal with The Student	0.48	1.12	0.21	0.06	0.91	2.32	28	0.03*
Seek Help from Home	-1.90	1.21	0.22	-2.36	-1.44	-8.47	28	<0.001**
Seek Help from School Staff Member	-1.97	1.45	0.27	-2.52	-1.41	-7.29	28	<0.001**

Note: *p < .05, **p < .01

Table 10. Independent Samples Test of Response to behavior by gender

	Typical Behavior						_Disruptive Behavior_					
	F	Sig.	t	df	M Dif	SE Dif	F	Sig.	t	df	M Dif	SE Dif
response to this behavior	3.82	0.06	0.59	28	0.27	0.46	0.79	0.38	0.11	27	0.03	0.30
tervene	0.91	0.35	0.95	28	0.27	0.28	0.54	0.47	-0.53	27	-0.10	0.19
lerant	31.42	<0.001**	-3.63	28	-0.53	0.15	0.004	0.95	1.04	27	0.39	0.38
couraging	1.74	0.120	-3.53	28	-0.7	0.25	2.31	0.14	0.94	27	0.30	0.31
el Happy	0.96	0.33	-0.75	28	-0.27	0.36	1.88	0.18	0.53	27	0.16	0.31
el Angry	17.36	<0.001**	1.74	28	0.27	0.15	0.07	0.79	-1.00	27	-0.45	0.45
el Worried	23.96	<0.001**	2.48	28	0.53	0.22	1.24	0.28	-0.38	27	-0.19	0.50
er relationships	1.84	0.19	-0.21	28	-0.07	0.31	0.02	0.90	1.12	27	0.23	0.21
acher relationships	0.57	0.46	-1.03	28	-0.33	0.33	0.40	0.53	1.26	27	0.28	0.22
ademic development	1.41	0.25	-0.93	28	-0.27	0.29	0.08	0.79	0.23	27	0.06	0.27
ademic performance	1.34	0.26	-1.97	28	-0.47	0.24	1.86	0.18	1.76	27	0.56	0.32
crease work/rigor	0.01	0.91	-0.85	28	-0.33	0.39	1.21	0.28	-0.15	27	-0.06	0.41
equately prepared to deal with behavior.	0.66	0.42	-2.17	28	-0.47	0.22	5.03	0.03*	-0.63	27	-0.21	0.33
k help from home	4.20	0.05*	-1.08	28	-0.47	0.43	2.51	0.13	-2.77	27	-0.76	0.28
k help from school staff member	0.06	0.81	1.08	28	0.33	0.31	0.07	0.79	-1.02	27	-0.46	0.45

Note: *p < .05, **p < .01

Table 11. Independent Samples Test of Response to behavior by race

	Typical Behavior						Disruptive Behavior					
	F	Sig.	t	df	M Dif	SE Dif	F	Sig.	t	df	M Dif	SE Dif
No response to this behavior	.20	.66	-1.20	28	-.54	.45	0.04	0.85	0.35	27	0.11	0.30
Intervene	1.84	.19	.76	28	.21	.28	0.14	0.71	-0.20	27	-0.04	0.19
Tolerant	.24	.63	.25	28	.05	.18	68.85	<0.001**	2.99	27	0.99	0.33
Encouraging	.007	.94	-.36	28	-.11	.30	0.79	0.38	1.77	27	0.53	0.30
Feel Happy	.32	.58	-.80	28	-.29	.36	4.64	0.04*	1.82	27	0.53	0.29
Feel Angry	2.35	.14	.73	28	.12	.16	1.17	0.29	-1.15	27	-0.51	0.45
Feel Worried	9.52	.005*	1.61	28	.37	.23	4.77	0.04*	0.66	27	0.32	0.49
Peer relationships	.96	.34	-1.04	28	-.32	.31	0.03	0.88	0.86	27	0.18	0.21
Teacher relationships	.005	.94	-1.04	28	-.34	.33	0.40	0.53	-1.26	27	-0.28	0.22
Academic development	.11	.74	.000	28	.000	.30	0.63	0.44	0.28	27	0.08	0.27
Academic performance	2.60	.12	-.93	28	-.23	.25	1.28	0.27	0.82	27	0.27	0.33
Increase work/rigor	2.44	.13	1.08	28	.42	.39	0.06	0.81	2.40	27	0.89	0.37
Adequately prepared to deal with behavior.	.067	.80	-.54	28	-.13	.23	0.13	0.72	-1.08	27	-0.35	0.32
Seek help from home	.13	.73	-.18	28	-.08	.44	0.07	0.80	1.14	27	0.35	0.30
Seek help from school staff member	2.30	.14	1.72	28	.52	.30	2.16	0.15	0.40	27	0.18	0.46

Note: *p < .05, **p < .01

Table 12. Correlation analysis between teacher characteristics and efficacy

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. *Years of Experience Teaching:*	1									
2. *Highest level of school you have completed?*	.37	1								
3. *How much can you do to control disruptive behavior in the classroom?*	.16	.32	1							
4. *To what extent can you make your expectations clear about classroom behavior?*	.30	.38*	.04	1						
5. *How well can you establish routines to keep activities running smoothly?*	.08	.36	.67**	.05	1					
6. *How much can you do to get children to follow classroom rules?*	.24	.34	.68**	.10	.66**	1				
7. *How much can you do to calm a child who is disruptive or noisy?*	-.06	.38*	.69**	.19	.43*	.53**	1			
8. *How well can you establish a classroom management system with each group of children?*	.23	.27	.75**	.34	.68**	.68**	.55**	1		
9. *How well can you keep a few problem children from ruining a group activity?*	.29	.43*	.69**	.16	.65**	.77**	.51**	.61**	1	
10. *How well can you respond to defiant children?*	.11	.05	.70**	.16	.44*	.57**	.65**	.63**	.69**	1

Notes: N=28, *p < .05, **p < .01

Table 13. Correlation analysis between teacher responses of experience with multicultural teaching settings and efficacy

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Teacher has received multicultural training	1	.15	-.04	.19	.11	.24	.22	.12	.20	.50**
2. Teacher is comfortable teaching minority/diverse students.		1	-.28	.06	-.55**	-.34	-.19	-.34	-.27	-.06
3. How much can you do to control disruptive behavior in the classroom?			1	.04	.67**	.63**	.69**	.75**	.69**	.70**
4. To what extent can you make your expectations clear about classroom behavior?				1	.05	.10	.19	.34	.157	.16
5. How well can you establish routines to keep activities running smoothly?					1	.66**	.43*	.70**	.65**	.44*
6. How much can you do to get children to follow classroom rules?						1	.53**	.68**	.77**	.57**
7. How much can you do to calm a child who is disruptive or noisy?							1	.55**	.51**	.65**
8. How well can you establish a classroom management system with each group of children?								1	.61**	.63**
9. How well can you keep a few problem children from ruining a group activity?									1	.69**
10. How well can you respond to defiant children?										1

Notes: N=28, *p < .05, **p < .01

Table 14. Summary of IAT Difference Score

M	SD	d	t(10)	p
.44	.38	1.15	3.81	.003

Notes: Positive scores indicate preference for White relative to Black name stimuli. The effect size *d* follows conventional small, medium, and large values of *d* at .2, .5, and .8 respectively.

Table 15. Correlation analysis between IAT score and teacher demographics

		1.	2.	3.	4.	5.	6.
1.	*Teacher IAT Score*	1	.73*	-.06	.50	.39	-.12
2.	*Years of teaching experience*		1	-.29	.49	.29	-.16
3.	*Grade currently teaching*			1	-.31	-.52	.50
4.	*Highest degree completed*				1	.17	.09
5.	*Multicultural training and experience composite*					1	-.36
6.	*Comfortable teaching in multicultural settings*						1

Notes: Multicultural training and experience composite created by summing the reported multicultural education training attended in the teacher demographic questionnaire. N=10, *p < .05, **p < .01

Table 16. Correlation analysis between IAT score and responses to the typical behavior vignette

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
1. Teacher IAT score	1	.35	a.	.65*	.02	-.03	.05	-.11	.12	.11	.33	.12	.28	-.15	.30	.13
2. No Response to Behavior		1	a.	-.02	.16	.38	-.23	-.30	.16	.42	.43	.15	-.33	.27	-.48	-.17
3. Intervene due to Behavior			a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.
4. Tolerant of Behavior				1	-.31	-.31	.10	.13	-.45	-.32	.00	.14	.56	.14	.24	.22
5. Encouraging of Behavior					1	.78**	-.18	-.72*	.80**	.89**	.83**	-.02	-.33	-.02	.01	-.61*
6. Emotional response - Happy						1	-.18	-.72*	.81**	.89**	.83**	.21	-.33	-.02	-.28	-.60*
7. Emotional response - Angry							1	.23	.07	-.03	.00	-.65*	-.18	-.65*	.75**	.75**
8. Emotional response - Worried								1	-.65*	-.73*	-.73*	.15	.55	.15	.01	.50
9. Impact on Relationships with Peers									1	.87*	.77**	-.08	-.43	-.43	.17	-.35
10. Impact on Relationships with Teachers										1	.95**	-.05	-.45	-.21	-.08	-.53
11. Impact on Academic Development											1	.00	-.27	-.17	.00	-.49
12. Performance academically												1	.69*	.52	-.64*	-.53
13. Increase Amount/Rigor of Work													1	.31	-.08	-.05
14. Feels Adequately Prepared to Deal with The Student														1	-.64*	-.31
15. Seek Help from Home															1	.63*
16. Seek Help from School Staff Member																1

Notes: a.= Value cannot be computed because at least one of the variables is constant. N=11, *p < .05, **p < .01

61

Table 17. Correlation analysis between IAT score and responses to the disruptive behavior vignette

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
1. Teacher IAT score	1	-.65*	.51	.02	-.30	-.02	-.15	.387	-.114	-.24	-.23	-.13	.35	-.32	.52	.51
2. No Response to Behavior		1	-.75*	.41	.67*	.58	-.08	-.692*	.609	.75*	.75*	.24	-.21	.47	-.63	-.93**
3. Intervene due to Behavior			1	-.56	-.67*	-.56	-.11	.371	-.408	-.72*	-.71*	.00	.10	.00	.36	.75*
4. Tolerant of Behavior				1	.62	.73*	-.51	.06	.50	.21	.27	.00	.18	.00	-.09	-.39
5. Encouraging of Behavior					1	.87**	-.12	-.31	.69*	.48	.64*	-.18	-.11	.00	-.27	-.56
6. Emotional response - Happy						1	-.36	-.17	.64*	.43	.68*	.00	.25	.18	-.17	-.58
7. Emotional response - Angry							1	-.27	-.27	.11	.21	.00	-.61	-.53	.36	.11
8. Emotional response - Worried								1	-.15	-.69*	-.64*	-.15	.29	-.44	.65*	.72*
9. Impact on Relationships with Peers									1	.47	.41	.00	-.31	.00	-.10	-.41
10. Impact on Relationships with Teachers										1	.84**	.23	-.12	.23	-.53	-.79**
11. Impact on Academic Development											1	.23	-.01	.23	-.33	-.82**
12. Performance academically												1	-.15	.25	.00	-.20
13. Increase Amount/Rigor of Work													1	.45	-.22	-.07
14. Feels Adequately Prepared to Deal with The Student														1	-.76*	-.59
15. Seek Help from Home															1	.69*
16. Seek Help from School Staff Member																1

Notes: N=10, *p < .05, **p < .01

Table 18. Correlation analysis between IAT score and responses to teacher efficacy scale

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Teacher IAT score	1	.14	.68*	.13	.48	.26	.14	.52	.05
2. How much can you do to control disruptive behavior in the classroom?		1	.16	.65*	.36	.60	.89**	.25	.00
3. To what extent can you make your expectations clear about classroom behavior?			1	-.22	.52	.05	.27	.53	.00
4. How well can you establish routines to keep activities running smoothly?				1	.41	.41	.54	.35	.00
5. How much can you do to get children to follow classroom rules?					1	.39	.47	.90**	.00
6. How much can you do to calm a child who is disruptive or noisy?						1	.47	.23	.64*
7. How well can you establish a classroom management system with each group of children?							1	.32	.00
8. How well can you keep a few problem children from ruining a group activity?								1	.00
9. How well can you respond to defiant children?									1

Notes: N=10, *p < .05, **p < .01

Table 19. Perception of race and gender of vignette characters

	Typical		Disruptive	
Gender	*n*	*%*	*n*	*%*
Correct	19	100.00	18	94.74
Incorrect	0	0.00	1	5.26
Race				
Correct	13	68.42	16	84.21
Incorrect	6	31.58	3	15.79

Notes: After completing all measure, respondents were asked to identify the race and gender of the students depicted in their vignettes.

Figure 1. Schematic description of the Implicit Association Test

Sequence	1	2	3	4	5	6	7
Task Description	**Target Concept (TC)**	**Attribute Concept (AC)**	**TC+AC Combine Concept**	**TC+AC Combine Concept**	**Reversed Attribute Concept**	**Reversed TC+AC Combine Concept**	**Reversed TC+AC Combine Concept**
Task Instructions	Black ● White ●	● Bad Good ●	● Black ● Bad White ● Good ●	● Black ● Bad White ● Good ●	● Good Bad ●	● Black Bad ● White ● ● Good	● Black Bad ● White ● ● Good
Sample stimuli	● Malik ● Lamar ● Jamel Josh ● Andrew ● ● Rasaan Justin ● Brandon ● ● Malik Brandon ● Andrew ● ● Lamar Justin ● Brandon ● ● Jamel ● Rasaan	Love ● Joy ● ● Horrible Glorious ● Peace ● Happy ● ● Failure ● Awful Wonderful ● ● Hurt Pleasure ● ● Nasty ● Terrible Laughter ● ● Evil ● Agony	● Rasaan ● Horrible Andrew ● Peace ● Wonderful ● ● Jamel ● Horrible ● Hurt Brandon ● Andrew ● Pleasure ● ● Nasty ● Jamel Josh ● Happy ● Laughter ●	Justin ● Glorious ● ● Jamel ● Awful Andrew ● Peace ● ● Malik ● Nasty Josh ● Happy ● Laughter ● ● Rasaan ● Agony Andrew ● Pleasure ● Brandon ●	● Wonderful Hurt ● ● Pleasure Nasty ● ● Love ● Happy Failure ● Awful ● ● Peace ● Joy Horrible ● Glorious Terrible ● ● Laughter Evil ● ● Agony	● Malik ● Happy ● Love Brandon ● Andrew ● Evil ● ● Lamar ● Glorious Andrew ● Hurt ● ● Rasaan Justin ● Terrible ● ● Laughter Josh ● Failure ●	Andrew ● Agony ● ● Lamar ● Glorious Justin ● Terrible ● Hurt ● ● Jamel ● Love ● Happy Brandon ● Andrew ● Failure ● ● Rasaan ● Laughter ● Lamar

The IAT procedure involved a series of seven steps (numbered columns). The first two steps introduce target concepts (Black vs White) and attributes (good vs bad), each of which is assigned to a left or right response indicated by black dots. The third and forth steps combines the target and attribute classifications such that particular types of targets and attributes are mapped onto the same response side (i.e., Black + Bad on the left). The Sixth and seventh steps recombines the target and attribute classifications after reversing attribute responses in the fourth step.

Figure 2. Vignette Set Development

Typical	*Set 1*	*Set 2*	*Set 3*	*Set 4*
Character name	Jackson	Xzavier	Charlotte	Aniyah
Demographics	White, male	Black, male	White, female	Black, female
Disruptive				
Character name	Xzavier	Jackson	Aniyah	Charlotte
Demographics	Black, male	White, male	Black, female	White, female

Notes: Vignette names were selected utilizing a BNI/WNI calculated from birth certificate data from a Midwestern state.

Appendix A

IRB Approval Letter

University of Nebraska Lincoln

Official Approval Letter for IRB project #16454 - New Project Form

October 28, 2016

Colin McGinnis
Department of Educational Psychology
6701 Vine St Lincoln, NE 68505

Kathleen Rudasill
Department of Educational Psychology
221 TEAC, UNL, 68588-0345

IRB Number: 20161016454EX
Project ID: 16454
Project Title: Effect of Implicit Bias of Teachers on Expected Academic Success and Perceived Behaviors

Dear Colin:

This letter is to officially notify you of the certification of exemption of your project for the Protection of Human Subjects. Your proposal is in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46) and has been classified as exempt.

You are authorized to implement this study as of the Date of Final Exemption: 10/28/2016

o Review conducted using exempt category 2 at 45 CFR 46.101
o Funding: N/A

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board.

If you have any questions, please contact the IRB office at 402-472-6965.

Sincerely,

Becky R. Freeman

Becky R. Freeman, CIP
for the IRB

Appendix B

Listserv Email Recruitment Messaging

Teacher Perception Study

Be part of an important education research study

• Are you an elementary school teacher?

• Do you want to learn more about how your perceptions impact beliefs about students?

If you answered YES to these questions, you may be eligible to participate in an education research study.

The purpose of this study is to investigate the effects of teachers' perceptions on expected academic success and perceived behaviors of students. This study will be conducted completely online, and respondents will remain anonymous.

Appendix C

Participant Waiver of Consent

Participant Informed Consent Form
IRB Approval # 20161016454EX
 Title: Effect of Implicit Bias of Teachers on Expected Academic Success and Perceived Behaviors.

Purpose:
The proposed study is an investigation of the effect of an educator's implicit biases of race and gender on their expected academic success and perceived behaviors.

Procedures:
After providing consent, you will complete a brief demographic survey. Then you will read two vignettes describing a child in class, and answer a short questionnaire regarding your beliefs about that child, as well as answer questions regarding your teaching. Finally, you will then complete an implicit associations test (IAT). The survey will take you approximately 25-30 minutes to complete.

Benefits:
There are no direct benefits to you as a research participant.

Risks and/or Discomforts:
There are no known risks or discomforts associated with this research.

Confidentiality:
Any information obtained during this study which could identify you will be kept strictly confidential. All participants will complete the survey anonymously. Names of study individuals will not be collected. Any identifying characteristics collected from the teacher demographic survey (e.g., current school district teaching in, the number of years teaching, name of their degree-granting institution, current zip code, etc.) will be kept on a password-protected computer that will either be with the PI or Co-Investigator or in a locked office at all times. Digital records will be stored on a password-protected computer belonging to the investigator.

Compensation:
Participants will not receive any compensation for taking part in the study.

Opportunity to Ask Questions:
You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Or you may contact the investigator(s) at the contact information below. Please contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 to voice concerns about the research or if you have any questions about your rights as a research participant.

Freedom to Withdraw:
 Participation in this study is voluntary. You can refuse to participate or withdraw at any time without

harming your relationship with the researchers or the University of Nebraska-Lincoln, or in any other way receive a penalty or loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy:
You are voluntarily making a decision whether or not to participate in this research study. By agreeing to the terms below, you have decided to participate having read and understood the information presented. Please print copy of this consent form to keep.

Participant Feedback Survey:
The University of Nebraska-Lincoln wants to know about your research experience. This 14 question, multiple-choice survey is anonymous; however, you can provide your contact information if you want someone to follow-up with you. This survey should be completed after your participation in this research. Please complete this optional online survey at: https://ssp.qualtrics.com/SE/?SID=SV_aVvlNCf0U1vse5n.

Name and Phone number of investigator(s)
Colin McGinnis, Principal Investigator
Educational Psychology
colin.mcginnis@huskers.unl.edu

Kathleen Rudasill, Ph.D., Secondary Investigator
Educational Psychology
krudasill2@unl.edu
Office (402) 472 2455

Statement of Consent:
You are voluntarily making a decision whether to participate in this research study. By clicking on the "I Accept" button below, your consent to participate is implied. You should print a copy of this page for your records. I have read the above information, and I consent to take part in the study.

I Accept

I Do Not Accept

Next

Appendix D

Teacher Background Questionnaire

Background Information

Our first few questions are about you as an individual. These questions will help us describe, in general,

the group of teachers who are filling out our survey.

Directions: Please check the box that best describes you.

Gender: Male   Female

Ethnicity:

   White   Black/African-American   Native-American/Hawaiian Native

   Asian-American/Pacific Islander   Hispanic/Latina   Other (_____)

Years of Experience Teaching: _____

Location of Current School in which You Are Teaching (City, State): _____

Current Grade Teaching:

   Kindergarten 1st 2nd 3rd 4th 5th 6th

Highest Degree Earned:

   BA/BS   Ed.S./ECE Certificate   Other (_____)

   MA/MS   Ph.D/Ed.D

Location of High School You Graduated From (City, State): _____

Location of Institution in which Highest Degree Earned (City, State): _____

Training on Teaching in Multicultural/Diverse Settings: (mark all that apply)

   None   Workshop/Conference(s)

   College course(s)   Degree in area

Rate your response to the following statements:

I am comfortable teaching minority/diverse students.

   Strongly Agree   Agree   Disagree   Strongly Disagree

_____

Appendix E

Vignette Set A: Jackson, Typical / Xzavier, Disruptive

_____

● **Vignette #1**

During math lessons, Jackson displays a typical pattern of participation in class and in most respects, his behaviors are what might be expected from an average child his age. He regularly speaks in class, and typically puts up his hand before talking. Although he is not necessarily a group leader, he is often an active participant and contributor to group activities with other children.

_____

1. What would you be likely to do in response to Jackson's this behavior?

  (a) Nothing

    not at all likely   *very likely*

       1   2   3   4   5

  (b) Intervene to stop the behavior (e.g., tell Jackson to stop, remove child from the situation, etc.)

    not at all likely   *very likely*

       1   2   3   4   5

2. How tolerant would you be of Jackson's behavior if it was displayed in your classroom?

   not at all tolerant   *very tolerant*

      1   2   3   4   5

3. How encouraging you be of Jackson's behavior if it was displayed in your classroom?

   not at all encouraging   *very encouraging*

      1   2   3   4   5

4. How do you think you would feel in this situation? Please rate how strongly you would feel:

 (a) Happy

not at all   *very strongly*

    1   2   3   4   5

(b) Angry

   not at all   *very strongly*

    1   2   3   4   5

 (c) Worried

   not at all   *very strongly*

    1   2   3   4   5

5. Would this behavior affect Jackson's:

(a) relationship with classmates?

   very negatively   *no effect*   *very positively*

    1   2   3   4   5

(b) relationship with teachers?

   very negatively   *no effect*   *very positively*

    1   2   3   4   5

(c) academic development?

   very negatively   *no effect*   *very positively*

    1   2   3   4   5

6. Jackson likely would do well academically in my class.

   not at all likely   *very likely*

    1   2   3   4   5

7. I would increase the amount or rigor of work provided to Jackson.

   not at all likely   *very likely*

    1   2   3   4   5

8. I would feel adequately prepared to deal with Jackson.

not at all likely   *very likely*

   1   2   3   4   5

9. I would seek help from, or speak to a caregiver at home (e.g., parent, grandparent) in regards to Jackson's behavior.

not at all likely   *very likely*

   1   2   3   4   5

10. I would seek help from, or speak to a school staff member (e.g., guidance counselor, school psychologist, administrator) in regards to Jackson's.

not at all likely   *very likely*

   1   2   3   4   5

● **Vignette #2**

During math lessons, Xzavier disrupts other children by closing their books while they are working, knocking their books and pencils off their desks, writing on their papers, and crumpling up their work. Xzavier often cannot contain his exuberance and tends to speak too loudly and too often. When working in groups with other children, Xzavier has difficulty waiting to talk and tends to dominate the conversation.

---

1. What would you be likely to do in response to Xzavier's behavior?

(a) Nothing

not at all likely   *very likely*

   1   2   3   4   5

(b) Intervene to stop the behavior (e.g., tell Xzavier to stop, remove child from the situation, etc.)

not at all likely   *very likely*

    1   2   3   4   5

2. How tolerant would you be of Xzavier's behavior if it was displayed in your classroom?

not at all tolerant   *very tolerant*

    1   2   3   4   5

3. How encouraging you be of Xzavier's behavior if it was displayed in your classroom?

not at all encouraging   *very*

encouraging

    1   2   3   4   5

4. How do you think you would feel in this situation? Please rate how strongly you would feel:

 (a) Happy

not at all   *very strongly*

    1   2   3   4   5

(b) Angry

not at all   *very strongly*

    1   2   3   4   5

 (c) Worried

not at all   *very strongly*

    1   2   3   4   5

5. Would this behavior affect Xzavier's:

(a) relationship with classmates?

very negatively   *no effect*   *very positively*

    1   2   3   4   5

(b) relationship with teachers?

very negatively   *no effect*   *very positively*

1   2   3   4   5

(c) academic development?

very negatively   *no effect*   *very positively*

1   2   3   4   5

6. Xzavier likely would do well academically in my class.

not at all likely   *very likely*

1   2   3   4   5

7. I would increase the amount or rigor of work provided to the student.

not at all likely   *very likely*

1   2   3   4   5

8. I would feel adequately prepared to deal with Xzavier.

not at all likely   *very likely*

1   2   3   4   5

9. I would seek help from, or speak to a caregiver at home (e.g., parent, grandparent) in regards to

Xzavier's behavior.

not at all likely   *very likely*

1   2   3   4   5

10. I would seek help from, or speak to a school staff member (e.g., guidance counselor, school

psychologist, administrator) in regards to Xzavier's behavior.

not at all likely   *very likely*

1   2   3   4   5

_____

Appendix F

Vignette Set B: Xzavier, Typical / Jackson, Disruptive

_____

● **Vignette #1**

During math lessons, Xzavier displays a typical pattern of participation in class and in most respects, his

behaviors are what might be expected from an average child his age. He regularly speaks in class, and

typically puts up his hand before talking. Although Xzavier is not necessarily a group leader, he is often

an active participant and contributor to group activities with other children.

_____

1. What would you be likely to do in response to Xzavier's behavior?

   (a) Nothing

   not at all likely   *very likely*

   1   2   3   4   5

   (b) Intervene to stop the behavior (e.g., tell Xzavier to stop, remove child from the situation, etc.)

   not at all likely   *very likely*

   1   2   3   4   5

2. How tolerant would you be of Xzavier's behavior if it was displayed in your classroom?

   not at all tolerant   *very tolerant*

   1   2   3   4   5

3. How encouraging you be of Xzavier's behavior if it was displayed in your classroom?

   not at all encouraging   *very encouraging*

   1   2   3   4   5

4. How do you think you would feel in this situation? Please rate how strongly you would feel:

 (a) Happy

not at all   *very strongly*

      1   2   3   4   5

(b) Angry

not at all   *very strongly*

      1   2   3   4   5

(c) Worried

not at all   *very strongly*

      1   2   3   4   5

5. Would this behavior affect Xzavier's:

(a) relationship with classmates?

very negatively   *no effect*   *very positively*

      1   2   3   4   5

(b) relationship with teachers?

very negatively   *no effect*   *very positively*

      1   2   3   4   5

(c) academic development?

very negatively   *no effect*   *very positively*

      1   2   3   4   5

6. Xzavier likely would do well academically in my class.

not at all likely   *very likely*

      1   2   3   4   5

7. I would increase the amount or rigor of work provided to the student.

not at all likely   *very likely*

      1   2   3   4   5

8. I would feel adequately prepared to deal with Xzavier.

   not at all likely   *very likely*

     1   2   3   4   5

9. I would seek help from, or speak to a caregiver at home (e.g., parent, grandparent) in regards to

Xzavier's behavior.

   not at all likely   *very likely*

     1   2   3   4   5

10. I would seek help from, or speak to a school staff member (e.g., guidance counselor, school

psychologist, administrator) in regards to Xzavier's behavior.

   not at all likely   *very likely*

     1   2   3   4   5

_____

● **Vignette #2**

During math lessons, Jackson disrupts other children by closing their books while they are working,

knocking their books and pencils off their desks, writing on their papers, and crumpling up their

work. Jackson often cannot contain his exuberance and tends to speak too loudly and too often. When

working in groups with other children, Jackson has difficulty waiting to talk and tends to dominate the

conversation.

_____

1. What would you be likely to do in response to Jackson's this behavior?

   (a) Nothing

   not at all likely   *very likely*

     1   2   3   4   5

   (b) Intervene to stop the behavior (e.g., tell Jackson to stop, remove child from the situation, etc.)

not at all likely   *very likely*

      1   2   3   4   5

2. How tolerant would you be of Jackson's behavior if it was displayed in your classroom?

not at all tolerant   *very tolerant*

      1   2   3   4   5

3. How encouraging you be of Jackson's behavior if it was displayed in your classroom?

not at all encouraging   *very encouraging*

      1   2   3   4   5

4. How do you think you would feel in this situation? Please rate how strongly you would feel:

(a) Happy

not at all   *very strongly*

      1   2   3   4   5

(b) Angry

not at all   *very strongly*

      1   2   3   4   5

(c) Worried

not at all   *very strongly*

      1   2   3   4   5

5. Would this behavior affect Jackson's:

(a) relationship with classmates?

very negatively   *no effect*   *very positively*

      1   2   3   4   5

(b) relationship with teachers?

very negatively   *no effect*   *very positively*

	1	2	3	4	5

(c) academic development?

very negatively   *no effect*   *very positively*

	1	2	3	4	5

6. Jackson likely would do well academically in my class.

not at all likely   *very likely*

	1	2	3	4	5

7. I would increase the amount or rigor of work provided to Jackson.

not at all likely   *very likely*

	1	2	3	4	5

8. I would feel adequately prepared to deal with Jackson.

not at all likely   *very likely*

	1	2	3	4	5

9. I would seek help from, or speak to a caregiver at home (e.g., parent, grandparent) in regards to Jackson's behavior.

not at all likely   *very likely*

	1	2	3	4	5

10. I would seek help from, or speak to a school staff member (e.g., guidance counselor, school psychologist, administrator) in regards to Jackson's.

not at all likely   *very likely*

	1	2	3	4	5

_____

Appendix G

Vignette Set C: Charlotte, Typical / Aniyah, Disruptive

_____

● **Vignette #1**

During math lessons, Charlotte displays a typical pattern of participation in class and in most respects, her

behaviors are what might be expected from an average child her age. She regularly speaks in class, and

typically puts up her hand before talking. Although Charlotte is not necessarily a group leader, she is

often an active participant and contributor to group activities with other children.

_____

1. What would you be likely to do in response to Charlotte's this behavior?

   (a) Nothing

   not at all likely   *very likely*

       1   2   3   4   5

   (b) Intervene to stop the behavior (e.g., tell Charlotte to stop, remove child from the situation, etc.)

   not at all likely   *very likely*

       1   2   3   4   5

2. How tolerant would you be of Charlotte's behavior if it was displayed in your classroom?

   not at all tolerant   *very tolerant*

       1   2   3   4   5

3. How encouraging you be of Charlotte's behavior if it was displayed in your classroom?

   not at all encouraging   *very encouraging*

       1   2   3   4   5

4. How do you think you would feel in this situation? Please rate how strongly you would feel:

(a) Happy

not at all   *very strongly*

     1   2   3   4   5

(b) Angry

not at all   *very strongly*

    1   2   3   4   5

(c) Worried

not at all   *very strongly*

    1   2   3   4   5

5. Would this behavior affect Charlotte's:

(a) relationship with classmates?

very negatively   *no effect*   *very positively*

    1   2   3   4   5

(b) relationship with teachers?

very negatively   *no effect*   *very positively*

    1   2   3   4   5

(c) academic development?

very negatively   *no effect*   *very positively*

    1   2   3   4   5

6. Charlotte likely would do well academically in my class.

not at all likely   *very likely*

    1   2   3   4   5

7. I would increase the amount or rigor of work provided to Charlotte.

not at all likely   *very likely*

    1   2   3   4   5

8. I would feel adequately prepared to deal with Charlotte.

   not at all likely   *very likely*

      1   2   3   4   5

9. I would seek help from, or speak to a caregiver at home (e.g., parent, grandparent) in regards to Charlotte's behavior.

   not at all likely   *very likely*

      1   2   3   4   5

10. I would seek help from, or speak to a school staff member (e.g., guidance counselor, school psychologist, administrator) in regards to Charlotte's.

   not at all likely   *very likely*

      1   2   3   4   5

• **Vignette #2**

During math lessons, Aniyah disrupts other children by closing their books while they are working, knocking their books and pencils off their desks, writing on their papers, and crumpling up their work. Aniyah often cannot contain her exuberance and tends to speak too loudly and too often. When working in groups with other children, Aniyah has difficulty waiting to talk and tends to dominate the conversation.

---

1. What would you be likely to do in response to Aniyah's this behavior?

   (a) Nothing

   not at all likely   *very likely*

      1   2   3   4   5

   (b) Intervene to stop the behavior (e.g., tell Aniyah to stop, remove child from the situation, etc.)

not at all likely   *very likely*

     1   2   3   4   5

2. How tolerant would you be of Aniyah's behavior if it was displayed in your classroom?

not at all tolerant   *very tolerant*

     1   2   3   4   5

3. How encouraging you be of Aniyah's behavior if it was displayed in your classroom?

not at all encouraging   *very encouraging*

     1   2   3   4   5

4. How do you think you would feel in this situation? Please rate how strongly you would feel:

(a) Happy

not at all   *very strongly*

     1   2   3   4   5

(b) Angry

not at all   *very strongly*

     1   2   3   4   5

(c) Worried

not at all   *very strongly*

     1   2   3   4   5

5. Would this behavior affect Aniyah's:

(a) relationship with classmates?

very negatively   *no effect*   *very positively*

     1   2   3   4   5

(b) relationship with teachers?

very negatively   *no effect*   *very positively*

1	2	3	4	5

(c) academic development?

very negatively   *no effect*   *very positively*

1	2	3	4	5

6. Aniyah likely would do well academically in my class.

not at all likely   *very likely*

1	2	3	4	5

7. I would increase the amount or rigor of work provided to Aniyah.

not at all likely   *very likely*

1	2	3	4	5

8. I would feel adequately prepared to deal with Aniyah.

not at all likely   *very likely*

1	2	3	4	5

9. I would seek help from, or speak to a caregiver at home (e.g., parent, grandparent) in regards to

Aniyah's behavior.

not at all likely   *very likely*

1	2	3	4	5

10. I would seek help from, or speak to a school staff member (e.g., guidance counselor, school

psychologist, administrator) in regards to Aniyah's.

not at all likely   *very likely*

1	2	3	4	5

_____

Appendix H

Vignette Set D: Aniyah, Typical / Charlotte, Disruptive

_____

● **Vignette #1**

During math lessons, Aniyah displays a typical pattern of participation in class and in most respects, her behaviors are what might be expected from an average child her age. She regularly speaks in class, and typically puts up his hand before talking. Although Aniyah is not necessarily a group leader, she is often an active participant and contributor to group activities with other children.

_____

1. What would you be likely to do in response to Aniyah's this behavior?

(a) Nothing

not at all likely   *very likely*

1   2   3   4   5

(b) Intervene to stop the behavior (e.g., tell Aniyah to stop, remove child from the situation, etc.)

not at all likely   *very likely*

1   2   3   4   5

2. How tolerant would you be of Aniyah's behavior if it was displayed in your classroom?

not at all tolerant   *very tolerant*

1   2   3   4   5

3. How encouraging you be of Aniyah's behavior if it was displayed in your classroom?

not at all encouraging   *very encouraging*

1   2   3   4   5

4. How do you think you would feel in this situation? Please rate how strongly you would feel:

(a) Happy

not at all   *very strongly*

    1   2   3   4   5

(b) Angry

not at all   *very strongly*

    1   2   3   4   5

(c) Worried

not at all   *very strongly*

    1   2   3   4   5

5. Would this behavior affect Aniyah's:

(a) relationship with classmates?

very negatively   *no effect*   *very positively*

    1   2   3   4   5

(b) relationship with teachers?

very negatively   *no effect*   *very positively*

    1   2   3   4   5

(c) academic development?

very negatively   *no effect*   *very positively*

    1   2   3   4   5

6. Aniyah likely would do well academically in my class.

not at all likely   *very likely*

    1   2   3   4   5

7. I would increase the amount or rigor of work provided to Aniyah.

not at all likely   *very likely*

| 1 | 2 | 3 | 4 | 5 |

8. I would feel adequately prepared to deal with Aniyah.

not at all likely   *very likely*

| 1 | 2 | 3 | 4 | 5 |

9. I would seek help from, or speak to a caregiver at home (e.g., parent, grandparent) in regards to

Aniyah's behavior.

not at all likely   *very likely*

| 1 | 2 | 3 | 4 | 5 |

10. I would seek help from, or speak to a school staff member (e.g., guidance counselor, school

psychologist, administrator) in regards to Aniyah's.

not at all likely   *very likely*

| 1 | 2 | 3 | 4 | 5 |

_____

• **Vignette #2**

During math lessons, Charlotte disrupts other children by closing their books while they are working,

knocking their books and pencils off their desks, writing on their papers, and crumpling up their

work. Charlotte often cannot contain her exuberance and tends to speak too loudly and too often. When

working in groups with other children, Charlotte has difficulty waiting to talk and tends to dominate the

conversation.

_____

1. What would you be likely to do in response to Charlotte's this behavior?

(a) Nothing

not at all likely   *very likely*

1	2	3	4	5

(b) Intervene to stop the behavior (e.g., tell Charlotte to stop, remove child from the situation, etc.)

not at all likely   *very likely*

1	2	3	4	5

2. How tolerant would you be of Charlotte's behavior if it was displayed in your classroom?

not at all tolerant   *very tolerant*

1	2	3	4	5

3. How encouraging you be of Charlotte's behavior if it was displayed in your classroom?

not at all encouraging   *very encouraging*

1	2	3	4	5

4. How do you think you would feel in this situation? Please rate how strongly you would feel:

(a) Happy

not at all   *very strongly*

1	2	3	4	5

(b) Angry

not at all   *very strongly*

1	2	3	4	5

(c) Worried

not at all   *very strongly*

1	2	3	4	5

5. Would this behavior affect Charlotte's:

(a) relationship with classmates?

very negatively   *no effect*   *very positively*

1	2	3	4	5

(b) relationship with teachers?

very negatively   *no effect*   *very positively*

1   2   3   4   5

(c) academic development?

very negatively   *no effect*   *very positively*

1   2   3   4   5

6. Charlotte likely would do well academically in my class.

not at all likely   *very likely*

1   2   3   4   5

7. I would increase the amount or rigor of work provided to Charlotte.

not at all likely   *very likely*

1   2   3   4   5

8. I would feel adequately prepared to deal with Charlotte.

not at all likely   *very likely*

1   2   3   4   5

9. I would seek help from, or speak to a caregiver at home (e.g., parent, grandparent) in regards to Charlotte's behavior.

not at all likely   *very likely*

1   2   3   4   5

10. I would seek help from, or speak to a school staff member (e.g., guidance counselor, school psychologist, administrator) in regards to Charlotte's.

not at all likely   *very likely*

1   2   3   4   5

Appendix I

Ohio State Teacher Efficacy Scale

(Tschannen-Moran & Hoy, 2001)

Tell us about your Teaching

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Please indicate your opinion on each of the questions below by marking any one of the nine responses.

1. How much can you do to control disruptive behavior in the classroom?

Not	Very	Some	Quite	A
at all	little	degree	a bit	great deal
1	2	3	4	5

2. To what extent can you make your expectations clear about classroom behavior?

Not	Very	Some	Quite	A
at all	little	degree	a bit	great deal
1	2	3	4	5

3. How well can you establish routines to keep activities running smoothly?

Not	Very	Some	Quite	A
at all	little	degree	a bit	great deal
1	2	3	4	5

4. How much can you do to get children to follow classroom rules?

Not at all	Very little	Some degree	Quite a bit	A great deal
1	2	3	4	5

5. How much can you do to calm a child who is disruptive or noisy?

Not at all	Very little	Some degree	Quite a bit	A great deal
1	2	3	4	5

6. How well can you establish a classroom management system with each group of children?

Not at all	Very little	Some degree	Quite a bit	A great deal
1	2	3	4	5

7. How well can you keep a few problem children from ruining a group activity?

Not at all	Very little	Some degree	Quite a bit	A great deal
1	2	3	4	5

8. How well can you respond to defiant children?

Not at all	Very little	Some degree	Quite a bit	A great deal
1	2	3	4	5