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Identifying the Racial Implicit Biases of Pre-service Teachers and Analyzing Their Impact on  
Students

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Elementary Education

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Spring 2022

**Abstract**

Implicit biases reflect the unconscious beliefs and viewpoints held against populations of people that influence our interactions with others. The adverse impact of educators' implicit biases on students influences disciplinary actions, setting expectations, and perpetuates the opportunity gap. Due to the implicitness of these biases, people are often unaware they exist, but the impact is apparent in disproportionate disciplinary and graduation rates of diverse populations of students. Pre-service teachers are entering the profession with limited understanding of how implicit biases form, how they are present in schools, and the negative effects of implicit biases on the lives of students. The study seeks to address these gaps in knowledge and misconceptions related to the themes of implicit bias by providing explicit instruction through concise presentations centering around aspects of implicit biases in K-12 public schools. With an awareness of implicit biases, educators and schools are provided with a greater ability to reevaluate harmful policies and actions that actively work against diverse populations of students.

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## Chapter I

### Introduction

Everyone has unconscious biases about social groups that impact and direct decision making. These biases can result in a preference toward or against people or ideals related to race, gender, age, weight, ability, and class. Over the course of an entire career, educators have the opportunity to impact many students from diverse backgrounds. The influence of implicit biases impacts teacher's perspectives on student behavior, their ability to make meaning of situations, and teachers' interactions with students of diverse populations and their families, especially if teachers and students do not share similar backgrounds.

Teachers have a responsibility to acknowledge the existence of biases and examine how students' education impacted by them. The formation of implicit biases is beyond the control of any person, as they are subconsciously developed through experiences, beliefs, interactions with others, and the media. Media is able to influence behaviors, especially through mass campaigns that targets issues, such as smoking (Handelsman & Sakraney, 2015). Handelsman and Sakraney state, "It is hence unsurprising that mass media and imagery have been shown to affect implicit bias" (Handelsman & Sakraney, 2015, p. 4). Media is a particularly influential mechanism that often upholds the status quo of the majority, which in American society is the White, middle-class, cisgender, male viewpoint. When people are consistently subjected to certain perspectives, those messages become incorporated into meaning making structures that fuel people's interactions towards others.

In 2020, national high-profile police brutality cases galvanized protests, but they also galvanized a national conversation about the dangerous effects of implicit racial biases. Like police officers, teachers and other educators are public servants who interact with diverse communities of people. While classroom contexts do not often result in life or death situations,

the choices educators make and the interactions they have can harmfully impact students well beyond their schooling.

### **Statement of Problem**

Teachers implicit biases left unchecked can cause them to make assumptions and affect their thoughts and actions towards students. Implicit biases are not at the forefront of people's minds, meaning they are not consciously making these judgements about people. There are various conditions that, when present, cause a person to rely on their unconsciousness, such as situations with incomplete information, time restraints, fatigue, and when cognitive abilities are overloaded (Staats, 2015). Teachers experience these conditions throughout any given school day, so it is understandable they engage implicit biases to make decisions because they do not necessarily have the cognitive wherewithal to challenge those biases when they arise (Staats, 2015).

When a person is unaware of an influence, that influence is impossible to minimize or limit. Future educators enroll in preparation programs to develop an understanding of child development and appropriate methods that can be utilized to provide effective instruction. Transferring this learning into classroom practice, is predicated on students and teachers having meaningful relationships and establishing a positive learning environment. Neither of these can be achieved if the negative role of implicit biases is not understood nor addressed. Teacher preparation programs can help minimize the impact of biases before pre-service teachers interact with students by including instruction related to implicit bias' function in creating inequitable education for students in public school settings. A recent study examined multiple data sets to determine the presence of explicit and implicit biases in teachers and the general population, finding insignificant differences between the two (Starck et al., 2020). Researchers determined

systematic training related to racial bias and reduction of prejudices can reduce the impact and presence of implicit biases (Starck et al., 2020).

### **Purpose and Significance of the Study**

The purpose of this study is to identify and examine preservice teachers' knowledge and awareness of implicit racial biases and how it impacts discipline, setting expectations, and the opportunity gap. This study provided preservice teachers currently student teaching in an elementary school setting, with educational modules or lessons that target implicit biases and how they are presented in the classroom, the impact on students, and resources for limiting the effects of the biases. The first step to offset the influence of implicit biases is to be consciously aware one has them to help ensure educators' intentions to help students learn and achieve are not obstructed by implicit biases (Staats, 2015).

The significance of the study was to provide insight into the understanding and confidence of pre-service teachers related to themes of implicit biases in schools. The research may benefit preparation programs to develop curriculum that provides instruction over implicit biases. Examining implicit racial biases of educators is crucial, as it creates an opportunity to discuss the role of these biases in limiting one's ability to promote racial equity (Starck et al., 2020).

### **Summary**

Chapter I provided an introduction, outlined the research problem, discussed the purpose and significance of the study. Chapter II provides a review of relevant literature, followed by Chapter III the study's methodology. Results are included in Chapter IV and conclusions, discussion, and implications of the study are discussed in Chapter V.



## **Chapter II**

### **Literature Review**

Chapter II is a comprehensive, yet not exhaustive review of literature related to implicit bias. The purpose of this section is to discuss the definition of implicit biases and review literature that examines the impact of teachers' implicit bias in the educational system. The literature review is divided into three sections: Definition and History of the Term Implicit Biases, How Implicit Biases Are Observed in Schools, and Strategies to Limit the Impacts of Implicit Bias.

#### **Definition and History of the Term Implicit Bias**

Implicit bias refers to how a person's attitudes and stereotypes about another can unconsciously affect their actions towards a person (Staats, 2020). The term, initially discussed as implicit cognition, was coined in 1995 by Mahzarin Banaji and Anthony Greenwald, American psychologists (Greenwald & Banaji, 1995). In a 2016 interview with National Public Radio, NPR, Banaji describes the process of discovering that "... our decisions are guided by forces we're not even aware of" (Montagne, Greene, & Banaji, 2016). This realization came after Banaji completed an experiment with Greenwald that asked her, as the participant, to associate faces of Black people with negative words and associate White faces with positive words (Montagne, Greene, & Banaji, 2016). Banaji was instructed to press a certain key when either a Black face or negative word appeared and another key when a White face or positive word popped up, which Banaji states she was able to complete with relative ease (Montagne, Greene, & Banaji, 2016). When she was asked to switch the associations, a Black face with a positive word and a White face with a negative word, however Banaji said "... my fingers appeared to be frozen on the keyboard. I literally could not find the right-the right key" (Montagne, Greene, &

Banaji, 2016, para. 6). The 2016 interview demonstrated how much implicit biases affect thoughts and actions, and people do not realize they have them. It is important to recognize that implicit biases can occur between those of the same race, ethnicity, gender, and class, because the bias is not expressed or at the forefront of our consciousness (Montagne, Greene, & Banaji, 2016).

The aforementioned test is now commonly known as the Harvard Implicit Bias Association Test, IAT. The IAT is a part of Project Implicit, started by Banaji, Greenwald, and Nosek in 1998. Project Implicit is described as, "... a non-profit organization and international collaborative network of researchers investigating implicit social cognition, or thoughts and feelings that are largely outside of conscious awareness and control" ("Project Implicit," n.d.). The website is dedicated to educating people about implicit bias, what they are, how they present themselves in everyday life, and how to manage their impact in everyday life.

Implicit biases are formed in the brain and Banaji describes the process as a combination of two things. First, brains have a striking ability to discern patterns we see in everyday life (Montagne, Greene, & Banaji, 2016). If people continuously see others in certain roles and situations, the brain will recognize and learn that pattern. Second, implicit biases are formed as a result of the culture people live in and the status quo that is enforced (Montagne, Greene, & Banaji, 2016). These biases are unconsciously formed and sustained because of our surroundings, meaning we must put in the work and effort to bring these biases to the forefront in order to eliminate them.

## **How Implicit Biases Are Observed in Schools**

Many types of implicit biases are interwoven in schools that disproportionately affect Students of Color: school discipline, grading and expectation setting, and the opportunity disparity.

### ***School Discipline***

School discipline involve methods used to maintain order and obedience in the classroom and school setting. One of the most common discipline plans used in schools nationwide is the zero-tolerance policy. This policy is defined as severe punishments given out to send the message certain behaviors will not be accepted or tolerated (Skiba & Losen, 2015). Zero tolerance in schools traces back to Reagan's War on Drugs in the 1980s. The country began to see an uptick in fear regarding violence in schools, so public school districts began incorporating zero tolerance policies to expel students with gun, drug, and gang-related offenses (Skiba & Losen, 2015). As a result, expulsion rates grew exponentially following nationwide implementation. Zero tolerance also began applying to minor offenses, such as dress code infractions. The effects of zero tolerance are present in recent years, as almost 3.5 million students were suspended throughout the 2011-2012 school year, a majority of them affecting students of color who were often given harsher punishments in comparison to their white peers, even if the behaviors are similar (Skiba & Losen, 2015). In the same school year, 7.6% of Black students were suspended from elementary school, which is 6% higher than the rate of White students that were suspended (Skiba & Losen, 2015). These data reflect Students of Color, specifically Black students, are punished more severely than White students, signaling implicit biases at play.

Zero tolerance policies are inherently racially biased methods that disproportionately impact Students of Color by issuing more exclusionary consequences like suspensions and expulsions that result in Students of Color missing multiple days of school, which furthers the opportunity gap.

The effects of school suspensions and expulsions influence the overall success of students in school, evident through decreased graduations rates and in life, seen through increased potential contact with the justice system. An article published on the American Federation of Teachers website states, “Schools with higher rates of suspension have lower ratings of school safety from students and have significantly poorer school climate, especially for students of color” (Skiba & Losen, 2015, para. 14). Zero tolerance policies do not create safer school environments for students; they serve as watchdogs waiting for students to make a mistake before striking. Increased school suspensions as a result of zero tolerance policies disproportionately affects students of color and can lead to increased risk behaviors, future suspensions, decreased academic engagement, and contact with the justice system (Skiba & Losen, 2015).

### ***Grading and Expectations***

Personal biases, beliefs, and prejudices affect a person’s interactions, and teachers are no exception. Teachers’ biases and the stereotypes they have about marginalized groups can greatly affect how they grade, set expectations, and their demeanor and attitude towards learning and students in the classroom. These prejudices and consequences range, and they are not necessarily going to be the same across ethnicities (Bergh, Denessen, Hornstra, Voeten, & Holland, 2010). All students deserve a fair and successful education, and in a society where grades determine a large percentage of success, educators should examine the influence of implicit bias and

prejudices on grading. The belief that students from diverse populations will achieve at lower rates may subconsciously influence assessments performed by teachers to align with potentially biased expectations (Bergh, Denessen, Hornstra, Voeten, & Holland, 2010).

The implicit and explicit biases of teachers can also affect how expectations are set, the interactions with students, and the extent of encouragement provided. Researchers Bergh, Denessen, Hornstra, Voeten, & Holland (2010) found that teachers have poorer expectations, aim more negative speech, and provide decreased amounts of encouragement towards Latino and African American students in relation to white students. Encouragement is an important factor in school, as encouragement provides students with reassurance, inspires confidence, and should not be denied to any student, especially not due to ethnic or racial backgrounds. Oftentimes, students recognize their teacher's expectations and any stereotypes influencing them, which can lead to avoidance of school and rejection of feedback and criticism (Chin, Quinn, Dhaliwal, & Lovison, 2020). The literature is clear that, educators must ensure they are setting achievable, yet challenging expectations that encourage students to better themselves academically and socially, without relying on stereotypes and prejudices to form those expectations and guidelines.

### ***Opportunity Gap***

Within the American school system there is a discrepancy between test scores and achievement that follow an established race and class expectation pattern (Noguera, 2008). These patterns of achievement are known as the opportunity gap. Simply stated, there is a clear, evident trend that students of color regularly perform worse than White students. In 2005-2006, Noguera took an in-depth look into two school districts in the New York City metro area that had high numbers of low-performing students of color. Findings revealed startling statistics surrounding the rates in which students of color were placed in advanced classes and gifted programs as well

as disparate graduation rates (Noguera, 2008). In the 2005-2006 school year, the first district, using the pseudonym Gardenville, saw, “Nearly twenty percent (17.2%) of White students and 16.7% of Asian students in the 4th grade were placed in gifted and talented compared to 5.7% of Black students and 3.9% of Latino students” (Noguera, 2008, p. 97). Studies support that Black and Latino students are much less likely to be identified and placed into gifted programs and courses, which decreases student involvement, graduation rates, and enrollment in post-secondary education (Noguera, 2008). When looking at the second district, Riverview, Noguera found “White students had a four-year graduation rate of 97%, while Black students only had a four-year graduation rate of 50% and Latinos fared only slightly better at 60%” (Noguera, 2008, p. 97). The gap in achievement between White students and students of color is apparent. Completing high school and attending a university or trade school is recognized as a predecessor to success in American society, and the opportunity gap observed in our schools determines the access to higher education for millions of students.

To better understand the effect the opportunity gap has on students of color, the history of America’s education system must be examined. Throughout the 19th and 20th century, people of color were thought to have lower intellectual capacity and ability compared to White Europeans (Noguera, 2008). Western, white-centered society has perpetuated this negative stereotype and for some citizens it has become ingrained, thus creating implicit biases. To further the belief that Whites were superior to people of color, standardized intelligence tests were developed and have been used as objective and factual measurements of intellect and talent (Noguera, 2008). Reliance on standardized testing has increased, as various educational policies have been employed in the United States. With the 2002 implementation of No Child Left Behind, NCLB, a policy that measured school achievement and performance through standardized tests, schools

scrambled to improve education and achievement of students who have performed poorly in the past (Noguera, 2008). In an effort to help close the opportunity gap, No Child Left Behind required the schools to monitor and report scores from tests that were created by those who believed people of color were intellectually inferior. According to Jahneille Cunningham, “Although NCLB has been replaced by the Every Student Succeeds Act of 2015, we are still recovering from its effects today” (Cunningham, 2019, p.114). The removal of funds allowed by NCLB fueled a cycle of failure in already lower performing schools which resulted in removal of students and distrust in the school, which decreased enrollment numbers and the accompanying funding (Cunningham, 2019).

While Western society has moved on from using genetics to further racial stereotypes, there are a multitude of other cultural influences attributed to explain the opportunity gap. For example, the lack of desire and oppositional disposition of students of color is used to hypothesize the reason for the academic gap. Anthropologist John Ogbu suggested that groups of people who were brought to America with violence, as experienced by African Americans, or forced to assimilate, as experienced by Native Americans, perform worse in school because they have developed an oppositional viewpoint in comparison to groups that, for the most part, entered America willingly, such as European and Asian immigrants (Noguera, 2008).

Educators have a responsibility to examine their biases to provide culturally responsive education that ensures every student is receiving a fair, equal, and quality education (Krasnoff, 2016). It can be difficult for people to accept their roles in perpetuating stereotypes and it is easier to deflect the blame onto others. Noguera states, “Our attitudes invariably influence our actions and whenever educators blame low student achievement on some factor they cannot

control, there is a strong tendency for them to refuse to accept responsibility for those factors they do control” (Noguera, 2008, p. 101).

### **Strategies to Limit Implicit Bias**

In order to improve the quality of education students of color receive, educators and administrators must examine their implicit biases and implement strategies that limit the impact of biases. There are various tools, methods, and techniques that can be used as alternatives for discipline, for setting expectations, and closing the opportunity gap.

#### ***School Discipline***

There are a variety of more effective strategies that move away from zero tolerance policies, that do more harm than good, toward more effective disciplinary methods and prevention strategies that better serves more students. First, and perhaps the most important prevention technique is to build strong, positive, encouraging relationships with students. In a move away from suspensions, expulsions, and office referrals, schools have begun implementing restorative practices. Restorative practices can be defined as “the need to restore good relationships when there has been harm...” (Mccluskey et al., 2008, p. 405). Instead of harshly punishing a student for misbehavior, educators should maintain positive relationships with students and seek to understand the cause of the behavior.

Second, schools can and should implement social and emotional learning programs into the curriculum. Social and emotional learning helps students learn to understand and manage their emotions, acknowledge and value others’ perspectives, create goals for themselves, learn to make rational decisions, and become better communicators with each other (Skiba & Losen, 2015). Students often have limited knowledge and ability on how to control their emotions,



which can cause outbursts and misbehavior, and social-emotional education can provide students with techniques to understand and combat a range of emotions (Skiba and Losen, 2015).

Third, Positive and Behavioral Interventions and Supports, PBIS, can be used as an alternative to traditional discipline methods. PBIS is a structured intervention that establishes an inclusive culture and provides intensive behavior support to assist students to become academically and socially successful (Horner, Sugai, & Anderson, 2010). Establishing relationships with students, implementing social and emotional learning, and using positive behavior supports are some of the most effective methods to creating encouraging and supportive school and class environments (Skiba & Losen, 2015).

### ***Grading and Expectations***

There are multiple strategies educators can use to set high expectations and provide feedback and instruction so that students are able to meet those expectations. First, teachers should work to provide an engaging, rigorous curriculum while maintaining high expectations (Skiba & Losen, 2015). Teachers need to understand and ultimately believe that all students, regardless of ethnicity, socioeconomic status, or other variance, are capable of learning and achieving and all students should be held to high standards while being encouraged to grow themselves academically. Second, educators need to recognize how their expectations are communicated to students intentionally and unintentionally. There are various ways that expectations are shown, such as providing more difficult materials to students who are held to higher standards or giving those students more chances to respond to questions and to be involved in class discussions (Bergh, Denessen, Hornstra, Voeten, & Holland, 2010). These methods are mostly unintentional on the teacher's part, but students learn to recognize these

patterns and come to understand which of them the teacher truly believes in and will adjust their behavior accordingly (Bergh, Denessen, Hornstra, Voeten, & Holland, 2010).

Teachers can also intentionally set expectations by stating them at the beginning of the year and placing a reminder in the classroom, but that intentionality is no longer useful if it is not reflected in the actions of the teacher. This means teachers need to be deliberate, such as providing challenging assignments to all students that push them academically. The assignments do not necessarily need to be the same, but the intention does in the sense that the work will give all students a fair chance to meet or exceed the high expectations set. Lastly, teachers need to self-reflect on how they grade students and set or alter classroom achievement and behavior expectations. The implicit biases teachers may bring into the classroom can be mitigated by introspection and examining their belief system and prejudices (Skiba & Losen, 2015). Teachers must put in the effort to analyze the techniques used to set and evaluate expectations to ensure that all students regardless of cultural background are receiving an effective and quality education that encourages advancement and fosters a love of learning.

### ***Opportunity Gap***

The opportunity gap between White students and students of color is a persistent trend spanning decades and should be addressed. There are a variety of methods and strategies that can be implemented by district administrators and teachers to help lessen the gap. First and foremost, educators and school leaders must accept responsibility for their roles in the lack of student achievement. There is no doubt that outside factors such as parent involvement and socioeconomic status can influence a student's achievement, but educators need to begin with what they control and influence, their classrooms and pedagogy. Teachers should focus on providing a multitude of stimulating assignments that challenge and encourage students to grow

(Haycock, 2001). Teachers may believe that because of a student's life outside school, they are unable to meet the high expectations. Second, standards need to be set so that teachers and students have a guide for what objectives need to be mastered and when that should occur (Haycock, 2001). With standards, teachers can set expectations for students and are provided a guide for ensuring those expectations are being met. Alongside standards, a tough curriculum must be present in classrooms to push students cognitively.

Third, teachers must understand that some students may need extra help and support (Haycock, 2001). Students may arrive at school without the foundational knowledge and skills needed to succeed, and those needs have to be met before advancing instruction. Lastly, educators and administrators are encouraged to evaluate any biases they have about race and intelligence that inhibit their ability to effectively teach and increase the achievement of students of color. Schools often reflect society's beliefs regarding race and those stereotypes are fortified in the culture of schools, meaning teachers need to put in direct and intentional effort into challenging these ideas to ensure that their biases are not impacting the educational experience and achievement of students of color (Noguera, 2008).

### **Role of Teacher Preparation Programs**

While educators have a personal responsibility to understand how their implicit biases impact their students and families, it should be the role of teacher preparation programs to introduce these sensitive topics to raise awareness and to provide awareness for pre-service educators before they enter classrooms. Pre-service teachers must be provided with the tools and resources necessary to develop emotional awareness and appropriate, non-punitive, responses to students (Donahue-Keegan et al., 2019). Teacher preparation programs often focus on

instructional methods and strategies, with minimal preparation regarding awareness of emotions and how to interpret emotions through a reflective lens (Donahue-Keegan et al., 2019).

### **Summary**

This chapter reviewed relevant research and literature regarding issues of teachers' implicit bias and its impact on Students of Color. Strategies suggested by scholars of this research were discussed. The next chapter discusses the participants and methodology used for this study.

## **Chapter III**

### **Methodology**

This research study investigated preservice teachers' understanding of racial implicit biases and their impact on students. The study examined teacher candidates' understanding of implicit bias observed in school discipline practices, grading and expectations, and in widening the opportunity gap. This chapter describes the setting of the study and timeline, the study participants, data collection instruments and methods, and data analysis.

#### **Study Setting and Timeline**

The study was conducted using a three-part format – pre-assessment, module presentations, and post-assessment. Participants were given access to and asked to independently complete an online pre- and -post assessment survey through Qualtrics. Participants engaged in three learning modules that spanned three weeks. The duration of each presentation ranged from an hour to an hour and a half each session, with one module per week. Each module presentation was delivered face-to-face during participants' Elementary Seminar course that met in a NWA elementary school and on the university campus during the first semester of student teaching.

#### **Study Participants**

The participants were senior teacher candidates completing the first semester of a two-semester internship required for the Bachelor of Science in Elementary Education degree. Participants were recruited from the class enrollment in one section of Elementary Seminar. Ten of fourteen candidates signed the Informed Consent; see Appendix D. Of the ten participants, eight fully completed the pre-assessment and two fully completed the post-assessment.

### Participant Demographics

As part of the pre-assessment, participants were asked to provide their hometown, both the city and the state. Hometown refers to where participants live when they are not attending the University of Arkansas. Six participants live in Texas, two live in Arkansas, one lives in Georgia, and one lives in Louisiana. Table 1 reflects the pre-assessment responses for each participant's hometown. Table 2 reflects the post-assessment responses for each participant's hometown.

**Table 1**

*The hometowns of all ten participants, including the city and state, reflected in the pre-assessment.*

<b>Participant Number</b>	<b>City</b>	<b>State</b>
1	Angleton	Texas
2	Loganvilla	Georgia
3	Gravette	Arkansas
4	Lewisville	Texas
5	Austin	Texas
6	Shreveport	Louisiana
7	Houston	Texas
8	Dallas	Texas
9	Austin	Texas
10	Elkins	Arkansas

**Table 2**

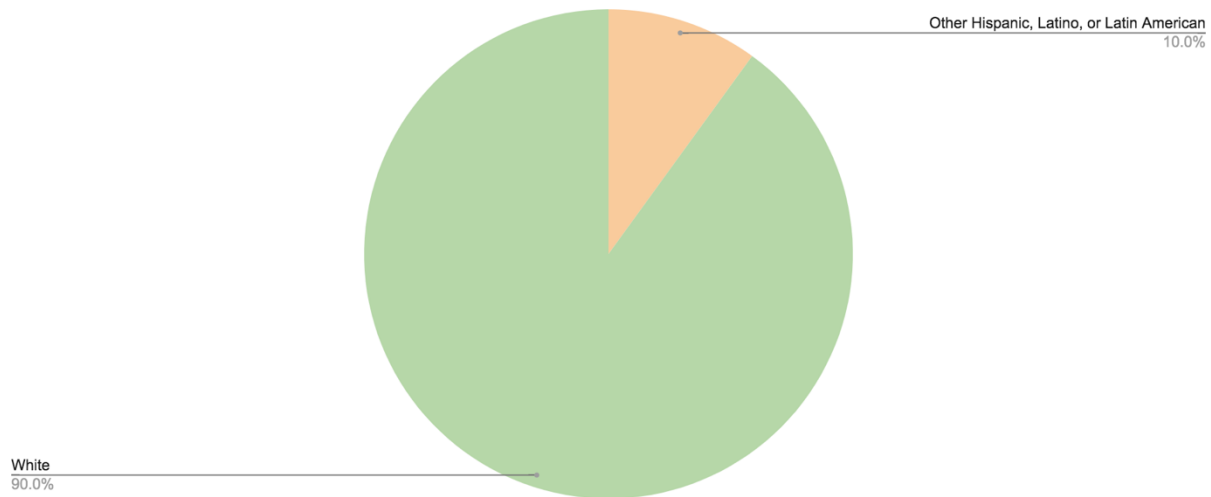
*The hometowns of all ten participants, including the city and state, reflected in the post-assessment.*

<b>Participant Number</b>	<b>City</b>	<b>State</b>
3	Gravette	Arkansas
8	Dallas	Texas
4	Lewisville	Texas
10	Elkins	Arkansas

Each participant self-identified their gender and ethnicity as one of the following racial/ethnic groups: African American or Black, Asian American, Mexican or Mexican

American or Chicano, Native American or American Indian or Alaskan Native, Other Hispanic or Latino, or Latin American, Pacific Island American/Pacific Islander, Puerto Rican, Southeast Asian American/Southeast Asian, Two or more races, White, Other. All participants were female. One participant selected Other Hispanic, Latino, or Latin American and nine participants selected White (see Figure 1). These data were used to track participant responses across the pre and post-assessments.

*Figure 1.* The self-selected races of participants on the pre-assessment questionnaire.



## Data Collection Instruments and Methods

### *Pre and Post Questionnaire*

Five days prior to the first teaching module, the study participants were given access to an online pre-assessment through Qualtrics. Participants were asked to independently complete a 13-question pre-assessment. Beyond demographic data, participants responded to open response questions and Likert-like ratings of their understanding and confidence about topics related to inequitable educational outcomes for students influenced by implicit biases. See Appendix A.

At the conclusion of the final presentation, participants were asked to independently complete the post-assessment online through Qualtrics. The study participants were given access

to a 10-question post assessment through Qualtrics that mirrored the same demographic questions, open responses, and Likert-like ratings of their understanding and confidence about topics related inequitable educational outcomes for students influenced by implicit biases. The reduction in questions on the post-assessment is due to minimal explicit instruction provided over multicultural education during any of the modules. See Appendix B. Participants were emailed on October 31, 2021 and November 14, 2021 to provide reminders and continued access to the post-assessment.

### *Overview of the Modules*

After the pre-assessment, participants engaged in three modules over the course of three weeks focused on implicit biases regarding school discipline, grading and feedback, and the opportunity gap. To examine potential growth in participant understanding of how implicit biases are observed in schools and their direct impact on students, direct instruction was provided. Three modules were prepared and delivered about one major aspect of implicit bias in schools. Because the literature about each topic is interrelated, the relationships between each topic were considered and discussed. Within each module, participants were provided definitions, statistics, activities, examples, and possible solutions.

The first module centered discussion about disproportionate disciplinary rates, specifically experienced by students of color. Participants learned the definition of and relevant statistics of exclusionary disciplinary policies, especially through the lens of zero tolerance policies. The harmful consequences and long-term effects were discussed, and a real-world example impacting a six-year-old child was included as a poignant example. Alternative discipline policies, such as social emotional learning, trauma-informed education, and restorative discipline were compared and contrasted. See Appendix E for the school discipline module.



The second module provided instruction over implicit biases' impact observed in grading and setting expectations for diverse student populations. Graduation rates for students representative of diverse demographics, such as economic status, gender, and race, were examined within districts in the Northwest Arkansas area. Participants were engaged in a brief replication of a study, where they were tasked to use two rubrics to examine the same piece of writing, one with a stereotypical Black name and the other with a stereotypical White name (Quinn, 2021). Participants received one of the passages and scored using a grade level equivalency scale and then a qualitative rubric. The results of the activity were compared and contrasted to the results of the study. Discussion occurred over the effect of implicit biases in grading on students, and improvements schools and teachers can implement to minimize the impact. The use of a hands-on activity allowed participants to directly see how implicit bias can influence grading. See Appendix F for the setting expectations and providing feedback module.

The third, and final, module discussed achievement versus opportunity and the role of standardized testing in perpetuating the gap. The Arkansas Math and Reading Reports from 2017 and 2019 were examined for diverse populations ("The Nation's Report Card," n.d.). The graduation rates for a high school in the Northwest Arkansas area were examined. Outcomes for limited access to resources for students from diverse student populations were analyzed, and improvements were presented to minimize the opportunity gap. See Appendix G for the opportunity gap module.

Each module provided definitions, background knowledge, statistics, and possible solutions for each topic.

### **Data Analysis Methods**

Participants were not expected to maintain notes or any records of learning. Data were qualitatively and quantitatively analyzed using information provided directly from participants' written responses to the pre- and -post assessments. Commonalities and trends were identified in the pre-assessment to determine prior understandings, misconceptions, and perceived confidence levels before engagement with the content of the modules. The post-assessment results were analyzed to identify any new understandings or growth in perceived confidence among participants. See Appendix A for the pre-assessment questions participants were asked to answer. See Appendix B for the post-assessment questions participants were asked to answer.

### **Confidentiality and IRB Approval**

Permission for this study was granted by University of Arkansas Institutional Review Board. See Appendix C. Participants completed a consent form stating participation was fully voluntary and their identities and corresponding responses would remain anonymous to the researcher. See Appendix D for consent form. Confidentiality remained intact, as participants did not provide their names throughout the pre and post-assessments. Data were collected and stored using a secured Qualtrics account, for which the researcher had sole access to.

### **Summary**

This chapter has discussed the selection of participants, the setting and timeline for the study, data collection and instrumentation, and the data analysis strategy used to examine preservice teachers' understanding and confidence regarding implicit biases' role in exclusionary school discipline policies and rates, setting high expectations, and knowledge of the opportunity gap. The next chapter will discuss the results from the study.

## Chapter IV

### Results

Chapter IV examines participants' responses to the pre- and post-assessment questionnaires, which were designed to identify prior understandings, misconceptions, and to determine new understandings and growth. Participants' responses were extracted to show varying levels of understanding in relation to the four major themes of implicit biases, school disciplinary rates, setting high expectations for all students, and the opportunity gap.

The data presented in this chapter were collected from ten participants. Participants were assigned a number to track their responses from pre- to post-assessment. Table 3 reflects the participant numbers of each participant, generated using the demographic information provided on the pre-assessment.

**Table 3**

*The participant numbers assigned based on the demographic information provided in the pre-assessment.*

Participant Number	City	State	Race
1	Angleton	Texas	White
2	Loganvilla	Georgia	White
3	Gravette	Arkansas	White
4	Lewisville	Texas	White
5	Austin	Texas	White
6	Shreveport	Louisiana	White
7	Houston	Texas	White
8	Dallas	Texas	White
9	Austin	Texas	Other Hispanic, Latino, or Latin American
10	Elkins	Arkansas	White

The data are organized into subsections corresponding to each question on the pre-assessment and post-assessment. Participant responses to each question are notated by quotation marks and may include various spelling and grammatical errors. The post-assessment section

examines the growth of the two participants who fully completed both the pre and post-assessment.

### **Pre-Assessment Data Analysis**

This section examines participants' responses to the pre-assessment by analyzing each question to identify and discuss the level of understanding for each participant. See Appendix A for the pre-assessment questionnaire.

#### ***Question Four***

Participants were asked to describe the demographics of their internship classroom and school. Six participants were interning in a classroom with majority White students, with African American, Hispanic, Asian, and American Indian comprising the rest of the class. One of these participants discussed the racial and gender breakdown of teachers, sharing that the school had a majority of White female teachers. Two participants were interning in a classroom and school where a majority of students were Hispanic. Two participants provided racial background for students but did not specify the majority. Six participants intern in schools and classrooms where they explicitly stated White students comprise the majority. Table 4 displays participant responses to the question on the pre-assessment.

**Table 4**

*Participant responses to describing the demographics of their internship question on the pre-assessment.*

<b>Participant Number</b>	<b>Response</b>
1	“Marshallese, African American, Hispanic, White”
2	“Predominantly white”
3	“In my current placement there is one Hispanic student, one Pacific Islander student, and one African American student”
4	“55.8% of our students are hispanics or latino, 19.35% are white and 15.68% are Hawaii/Pacific Islander.”
5	“Majority hispanic, white, Vietnamese”
6	“Predominately white, few hispanic, and one African American”
7	“16 White, 4 Hispanic, 2 African American, 1 Asian, 1 Marshallese”
8	“I just finished a placement in a kindergarten classroom in ISD. In my kindergarten classroom, I had a majority white class with one Black, two Asian American, one Hispanic, and four students of other ethnic backgrounds. I would say that my classroom was not a proficient example of diversity based on the percentage breakdown of ethnic backgrounds. My classroom also had a relatively even breakdown of males and females. Overall, I would say that my school has a majority female classroom teachers and they are also a majority white.”
9	“My first placement had 23 students. Four students are hispanic, two students are African American, one student is Asian, and the rest of the class is white.”
10	“School: <a href="https://myschoolinfo.arkansas.gov/Schools/Detail/0401020?FY=28">https://myschoolinfo.arkansas.gov/Schools/Detail/0401020?FY=28</a> Classroom: 7 American Indian, 1 black, 1 Hispanic, 10 white”

### ***Question Five***

When asked to define multicultural education, participants provided a variety of responses ranging in complexity and knowledge. Four participants, 1, 5, 6, and 7, focused their definitions around exposing students to a variety of cultures and perspectives to represent the

diversity around the world. Two participants, 2 and 3, defined multicultural education through an inclusion lens by celebrating the diversity of students and the world, specifically socioeconomic and racial differences. Two participants provided in depth definitions that addressed multiple facets of multicultural education. These participants mentioned celebrating diversity of the world, providing students with multiple perspectives, and creating an inclusive and equitable learning environment for all students. Participant eight specified multicultural education as the responsibility of the teacher to learn about the culture of each student and instruct over content that is relevant to the diversity in the classroom. Participant four did not finish [her](#) response. Participants provided responses containing similar themes and beliefs related to multicultural education, specifically discussing the importance of exposing students to diverse perspectives and resources. Table 5 displays participant responses to the question on the pre-assessment.

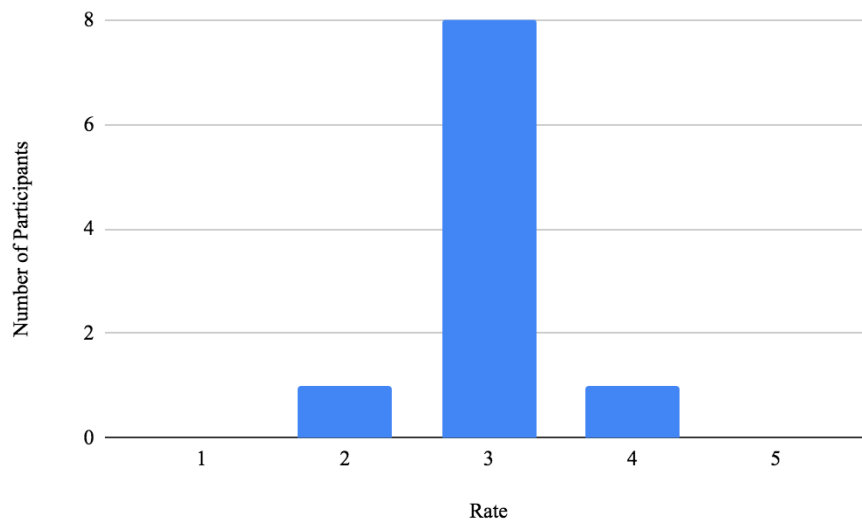
**Table 5***Participant definitions of multicultural education on the pre-assessment.*

<b>Participant Number</b>	<b>Response</b>
1	“I define multicultural education as a learning experience with showing different cultures”
2	“Including all socioeconomic and racial backgrounds”
3	“Multicultural education is noticing, educating, and celebrating on cultural, racial, and socioeconomic differences in our community and world.:
4	“Teaching a curriculum where all students”
5	“Teaching students about different cultures and introducing them to new cultures.”
6	“Teaching to a wide group of demographics and informing our students on the different perspectives and implicated bias.”
7	“Becoming education on multiculturalism and seeking to educate students on different cultures and perspectives around the world and within the classroom.”
8	“I would define multicultural education as implementing content that is relevant to your individual students. I also feel that multicultural education means that the classroom teacher makes an effort to understand his or her students so that they can create lessons that are relevant to their students”
9	“I would define multicultural education as an educational system that priorities every students opportunity to learn regardless of their race, gender, social class, or cultural background. Multicultural education celebrates the diversity of the world as well as student diversity and differences. Multicultural education provides students with opportunities to see the world from a different perspective and put themselves in the shoes of people they may never meet or interact with.”
10	“To me, multicultural education is an inclusive type of education that celebrates diversity, provides equal opportunities, allows all students to see the world from multiple perspectives, and does not discriminate against anyone.”

### ***Question Six***

Using a scale of one to five, participants rated their confidence being an effective multicultural educator (see Figure 2). One participant self-rated her knowledge at a 2, indicating a minimal understanding of being a multicultural educator. Eight participants self-rated at a 3, indicating awareness of the components of multicultural education and beginning knowledge of how to apply the philosophy in the classroom. One participant rated her understanding at a 4, signaling a higher level of confidence with understanding and applying the principles to be a multicultural educator.

*Figure 2.* Participants' self-ratings regarding their confidence in being an effective multicultural educator.



### ***Question Seven***

Participants were asked to provide reasoning explaining their self-selected rating to Question 6. Five participants, 2, 3, 4, 7, and 8, expressed low levels of confidence or exposure to diversity and multiculturalism, but a desire to learn and apply the ideas to their teaching. Two participants, 5 and 6, discussed a developing understanding of attributes of multicultural



education, but nervousness implementing their knowledge in the classroom. Two participants, 9 and 10, expressed concerns about the influence of their implicit biases on their teaching and discussed the importance of acknowledging these biases exist and reflecting on the implications for students. With a heightened awareness of implicit biases, these participants feel their ability to be an effective multicultural educator would increase. One participant, 1, conveyed confidence exposing students to a variety of cultures in a reserved manner, explaining her ability to “not being pushy about it.” This participant recognized a need to gradually diversify resources and instruction. These results reveal limited confidence surrounding implementation of multicultural education, but participants express a desire to learn more. Participants ~~seem to~~ understand the need for multicultural education and would value further instruction or information. Table 6 displays participant responses to the question on the pre-assessment.

**Table 6**

*Participant responses when asked to discuss their confidence being a multicultural educator on the pre-assessment.*

<b>Participant Number</b>	<b>Response</b>
1	“I feel that I would be good at showing different cultures in the classroom but not being pushy about it”
2	“I don’t know much about it, but willing to learn”
3	“I have not been exposed to much diversity in my life so I don't feel as confident in multicultural education because I don't have tons of personal experience with the topic.”
4	“Right now I am not super confident because I have never taught it before, but when I have my own classroom I will take Initiative to learn about my students and do research on ways I can represent everyone in my classroom.”
5	“I feel like I know some, but could know more to be more effective in the classroom. I feel educated on what it is and less educated on how to incorporate it.”
6	“I feel like I have some of the tools and components to take on this role however I am nervous implementing it.”
7	“I do not feel incredibly confident as a multicultural educator as I still have a lot to learn but seek to understand more.”
8	“I feel that there is always more that can be learned about how to be an effective multicultural educator. I want to learn more about being an effective multicultural teacher.”
9	“I believe that in order to grow my confidence about being a multicultural educator I must first have experience in doing so, now being in internship I will start gaining this experience and recognizing and reflecting on my own implicit biases as well as those of the teachers and students around me.”
10	“I believe that I have the tools and knowledge to be a successful multicultural educator. I know for a fact that I love each and every one of my students and support them as good as I can. However, I still worry that I haven’t fully acknowledged my biases that I don’t even recognize. I worry that I am doing things wrong that I don’t even realize. I am not fully confident in this area yet, but I strive to get better every day.”

***Question Eight***

Participants were asked to share their knowledge of implicit bias. One participant, 1, shared her understanding of implicit bias to be assigning an identity to someone based on physical features. Three participants, 2, 3, and 5, focused their responses to discuss the impact of personal experiences on biases. Two out of these three participants, participants 3 and 5, explicitly stated these are unconscious viewpoints. Six participants discussed implicit biases as assumptions made about groups of people based on personal beliefs or information learned. Three participants shared their knowledge of implicit bias as the influence of beliefs and prior understandings that lead to assumptions about groups of people. One participant, 10, shared a personal story regarding gender implicit bias when she expected her encounter with the sheriff to be with a male, not a female. Two participants, 4 and 6, provided insight into implicit bias through the lens of ‘school gossip’ and how the stories told about students impact how teachers set expectations for behavior or achievement. Common themes describe implicit biases as using previous experiences and beliefs to make assumptions about groups of people. Table 7 displays participant responses to the pre-assessment.

**Table 7**

*Participant responses when asked to share their knowledge of implicit bias on the pre-assessment.*

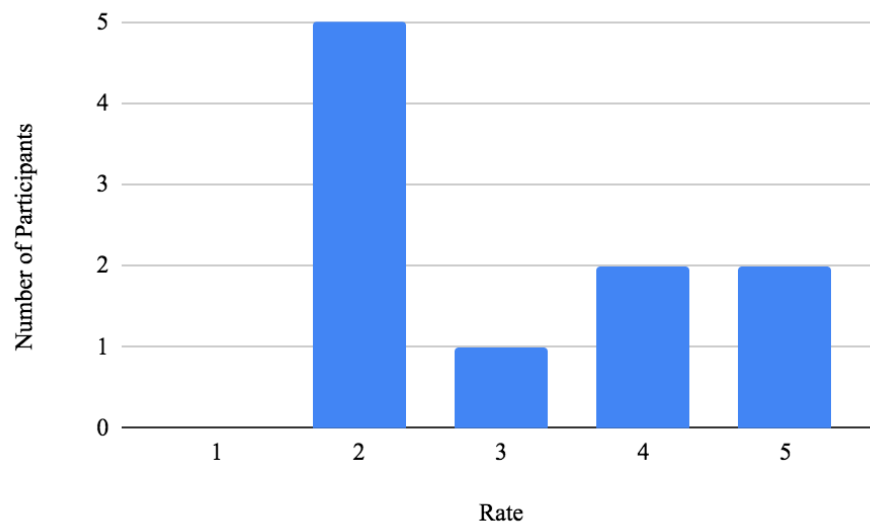
<b>Participant Number</b>	<b>Response</b>
1	“Implicit bias would be giving someone a identity based off their skin color”
2	“Being biased based on own experiences”
3	“implicit bias is you unconsciously view things based off of your past experiences”
4	“Asuming a student will act a certain way because of things you've heard or their background.”
5	“Implicit biases is when you unintentionally use your own experiences as your only perspective.”
6	“Having an prenotation or thought about something due to past words or language”
7	“Implicit biases are what you inherently assume about people or situations and we all have them.”
8	“I understand implicit biases as previous understandings or beliefs about a group of people.”
9	“Implicit biases are ideas or beliefs that lead someone to feel or think a certain way about a particular person or group of people. These beliefs are often influencing someone even if they are not aware that they are.”
10	“We have thoughts about certain groups of people or stereotype without even realizing that we are doing it. Yesterday I had to go meet up with a deputy to pick up my friend’s stolen trailer for them. I was fully expecting a male deputy when I pulled in the driveway. I was very wrong! I recognized right away what I had done, but I would’ve never thought twice about it if it had been a male when I arrived.”

### ***Question Nine***

Using a scale of one to five, participants were asked to rate their understanding of the School-to-Prison pipeline and how it manifests in schools (see Figure 3). Five of ten participants

self-rated their knowledge at a 2, suggesting limited contact with the term and minimal knowledge of its role in schools. One participant self-rated her understanding at a 3, indicating a brief understanding and awareness of the pipeline's impact in schools and on the lives of students. Two participants self-rated their knowledge at a 4, demonstrating a deeper understanding of the terminology and possible awareness of how it is present in schools. Two participants self-rated their understanding at a 5, suggesting extended knowledge of the pipeline.

*Figure 3.* Participants' self-ratings regarding their understanding of the School-to-Prison pipeline and its presence in schools.



Participants 1 and 2 did not complete the remaining questions. The data from the remaining eight participants will be discussed further.

### ***Question Ten***

Participants were asked to discuss their understanding of the School-to-Prison pipeline. Five participants, 3, 4, 7, 8, and 10, stated they had heard of the term, but expressed limited knowledge of which groups of students are impacted and how it manifests in schools through behavior policies and discipline practices. One participant, participant 5, discussed how the

biases of educators contribute to the expectations they set for students' futures. One participant, participant 6, provided a detailed understanding, stating that the pipeline is a "social justice issue facing predominately African American and Special Education children..." The participant continued to acknowledge that these students are punished more severely than other students, particularly those of different races. One participant, participant 9, discussed discrimination against minority students, students from varying socioeconomic backgrounds, and students from other "disadvantaged backgrounds" due to societal influences. The participant goes on to explain a connection between discrimination of students and decreased graduation rates, lower performance in school, and incarceration. Five of the participants were unable to provide any information about the School-to-Prison pipeline, while the remaining three participants provided explicit information, revealing a knowledge gap between participants. Table 8 displays participant responses to the question on the pre-assessment.

**Table 8**

*Participant responses when asked to discuss their understanding of the School-to-Prison pipeline on the pre-assessment.*

<b>Participant Number</b>	<b>Response</b>
3	“I have heard the name "School Prison Pipeline" but do not know what purpose it serves”
4	“I don't know much about it”
5	“I think the school prison pipeline is like continuing to the problem of believing a students future, and not giving them a chance to show you different.”
6	“it is a social justice issue facing predominately African American and Special Education children by funneling out of the education system and into incarceration. They receive harsher punishments than students of different racial backgrounds.”
7	“I do not have a strong understanding of the School to Prison pipeline but have heard this term”
8	“I don't know much about it but I have heard of it, read about it, and discussed it in class”
9	“The school to prison pipeline is the idea that young adults in schools that come from a lower social class, minority, or disadvantaged backgrounds are often being discriminated within their schools because of conditions they cannot control (money, skin color, etc.). When this happens, these students are more likely to either not graduate, do poorly in school, or as the name suggests, end up in jail or prison.””
10	“I have heard of it. That’s about it.”

### ***Question Eleven***

Eight participants provided a response when asked to discuss their understanding of disproportionate rates of discipline against students of color. One participant, 6, stated “I know they are a lot harder on these students and do not allow much room for mistake.” With no mention of districts, schools, administrators, or teachers, it is impossible to specify what the

participant meant through the use of “they”, but the participant acknowledged minimal chances for students of color to make mistakes. One participant, 3, said she did not have any information about this topic. One participant acknowledged they had no idea of specific rates or statistics relating to discipline against students of color. Two participants, 5 and 9, specifically mentioned the biases of teachers or administrators impacting the rate of which students of color are disciplined. Three participants, 3, 7, and 8 mentioned they had very little understanding of disproportionate discipline rates. Out of these three participants, each provided a varying degree of their familiarity with discipline rates, with participant 3 expressing they had no information and participant 7 acknowledging that discipline rates are higher against students of color. One participant recognized the high presence of disproportionate discipline rates in the classroom. One participant stated she had not seen the trend of disproportionate disciplinary rates personally and voiced she did not feel educated about this issue. One participant explained the extent of her knowledge, noting that “...students of color are disciplined at a higher rate than others.”

Out of eight responses, two, participants 5 and 9, discussed a connection between implicit biases against students of color and the rates at which these students are disciplined. Based on this data, it appears that multiple participants possess little to no understanding regarding the disproportionate discipline rates that impact the education and lives of students in classrooms every day. Table 9 displays participant responses to the question on the pre-assessment.



**Table 9**

*Participant responses when asked to discuss their understanding of disproportionate rates of discipline against students of color on the pre-assessment.*

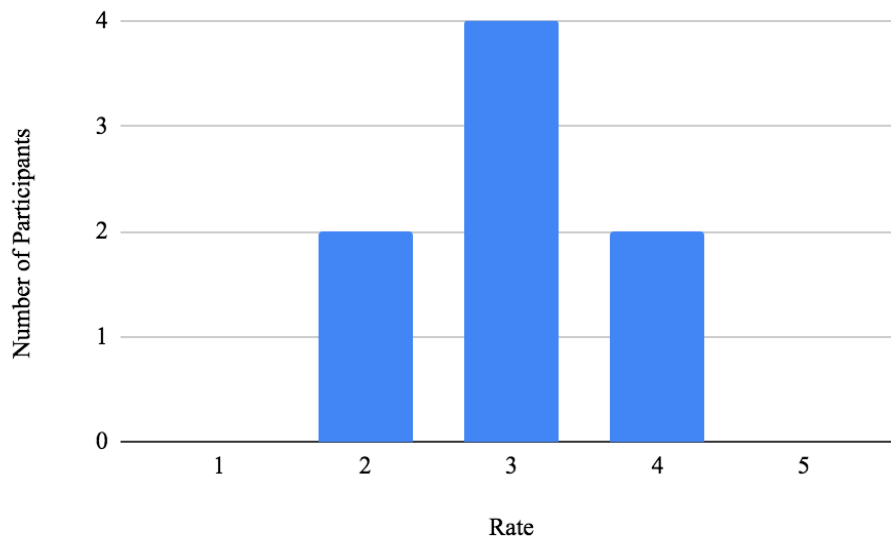
<b>Participant Number</b>	<b>Response</b>
3	“I do not know any information regarding this topic”
4	“I don’t know much but I do know it is very present in the classroom”
5	“I believe students of color have a higher discipline rate because teachers are believing in their own biases that they get in trouble more.”
6	“I know they are a lot harder on these students and do not allow much room for mistake.”
7	“I do not know a lot about this other than that students of color are disciplined at a higher rate than others.”
8	“I have heard of this, but haven’t observed it personally and don’t feel educated on it.”
9	“Students of color are often disciplined in a more harsh way than white students because of teacher and administrators implicit biases against the cultural group of which that student identifies with.”
10	“I have no knowledge of the exact rates or statistics.”

### ***Question Twelve***

Participants were asked to rate their understanding of the opportunity gap and how it is apparent in schools and society on a scale of one to five (see Figure 4). Out of eight participants, two self-rated their understanding at a 2, suggesting minimal familiarity with the term and little to no knowledge of its influence in schools. Four participants self-rated their understanding at a 3. This indicates an awareness of the opportunity gap, but there may be gaps in knowledge of how prevalent and impactful the gap is on students and schools. Two participants rated their knowledge at a 4, reflecting a higher level of understanding the opportunity gap, its presence in

schools, and impact on students. Participants demonstrate varying levels of confidence in their knowledge, indicating space for growth and development in understanding the opportunity gap.

*Figure 4.* Participants' self-ratings regarding their understanding of the Achievement or Opportunity gap and its presence in schools.



### ***Question Thirteen***

Participants were asked to provide written insight into their knowledge of the opportunity gap. One participant, 8, indicated a limited understanding of this concept, but expressed a desire to develop her knowledge. Five participants, 3, 4, 7, 9, and 10, identified other factors, including race, gender, income, and language in relation to the opportunity gap. One participant, 6, described her thoughts of the opportunity gap to be "... reaching students into these lower areas and help them grow...." While this response acknowledges there are varying levels of achievement, it does not provide an explanation as to why the gap exists. One participant, 5, acknowledges the opportunity gap as students not receiving equal resources to succeed. This response discusses inequitable education but does not offer insight into why students are not all receiving the same number of tools. Two participants, 4 and 9, mentioned differences in

outcomes and performance among diverse groups of students, specifically socioeconomic status. Overall, the participants displayed awareness of the opportunity gap and five recognized types of diversity that contributed to the gap, but there was limited discussion regarding what the opportunity gap means and why it exists. Table 10 displays participant responses to the question on the pre-assessment.

**Table 10**

*Participant responses when asked to provide written insight into their knowledge of the opportunity gap on the pre-assessment.*

Participant Number	Response
3	“Opportunity gap is differences in opportunities based on other indicators (socioeconomic, race, gender, etc)”
4	“The academic outcomes of lower income students, students of color and english learners”
5	“The achievement/ opportunity gap is where all students are not given the same opportunities, and they are not given the tools they need to be successful in the classroom”
6	“I think it has to do with reaching students in these lower areas and help them grow and achieve because everyone deserves an opportunity to grow.”
7	“There is an achievement gap for students of color in schools and they are not able to achieve at the same levels as others because of flaws within the education system”
8	“I don't really have a comprehensive understanding of this concept but would like to know more.”
9	“I believe the achievement/ opportunity gap refers to the gap in academic performance between groups of students. Such as high income and low income students.”
10	“There is a wide achievement gap among our students and this typically occurs between two different groups of students (based on race, gender, income, etc.)”

**Post-Assessment Data Analysis**

This section will examine participants' responses to the post-assessment through examination and analysis of each question to determine potential growth in understanding and knowledge as a result of exposure to each module. See Appendix B for the post-assessment questionnaire. Participants 4 and 10 were the only participants to provide responses to each question in the post-assessment. These participants were identified through their response to city and state of their hometown and race.

***Question Three***

Participants were asked to define multicultural education and discuss any shifts or growth in understanding. Participant 4 discussed multicultural education as implementing a curriculum that connects various cultures. This response reflects an awareness that student diversity is crucial for multicultural education. Participant 4's response to the pre-assessment does not appear to be completed. Participant 10's pre and post-assessment results are the same response. They reflect understanding that education should celebrate diversity, provide opportunities, and present multiple perspectives. The results of the post-assessment are not surprising, as explicit instruction about multicultural education was not provided during any module presentations. Table 11 reflects the participants pre and post-assessment responses for understanding of multicultural education.

**Table 11**

*Participants’ pre and post-assessment responses discussing knowledge of multicultural education.*

<b>Participant Number</b>	<b>Pre-assessment Response</b>	<b>Post-assessment Response</b>
4	“Teaching a curriculum where all students”	“Creating a curriculum that connects/relates to students of different cultures.”
10	“To me, multicultural education is an inclusive type of education that celebrates diversity, provides equal opportunities, allows all students to see the world from multiple perspectives, and does not discriminate against anyone.”	“To me, multicultural education is an inclusive type of education that celebrates diversity, provides equal opportunities, allows all students to see the world from multiple perspectives, and does not discriminate against anyone.”

***Question Four***

Participants were asked to discuss their current understanding of implicit biases. Participant 4 discussed the role of personal experiences in creating biases. Along with the pre-assessment response, participant 4’s understanding of implicit bias accurately incorporates assumptions and prior experiences combining to form subconscious opinions and biases. This response reflects a deeper understanding of how implicit biases influence people and their interactions. Participant 10’s post-assessment response reflects an understanding of the implicitness of biases, stating that “oftentimes do not recognize that we have them.” Along with participant 10’s knowledge of stereotypes and biases, the response reflects awareness of the existence of implicit biases and the need to minimize their impact on our interactions with people. Table 12 depicts the pre and post-assessment responses for knowledge of implicit biases.

**Table 12**

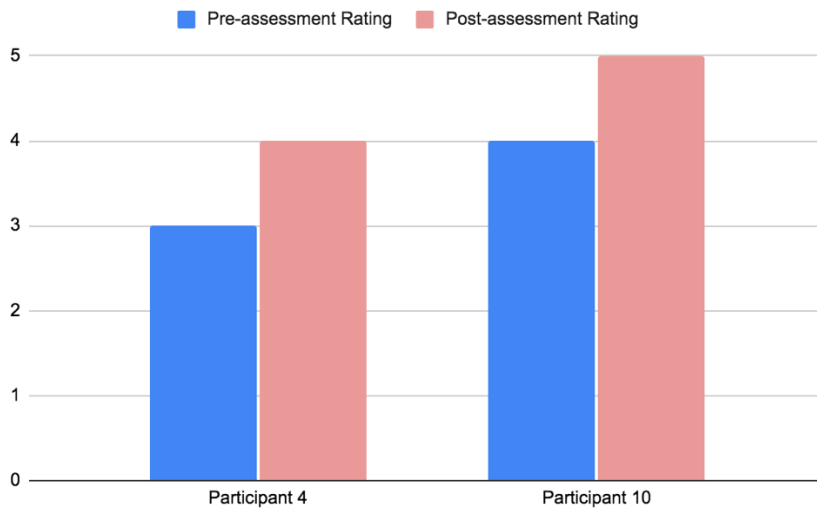
*Participants’ pre and post-assessment responses discussing their understanding of implicit biases.*

<b>Participant Number</b>	<b>Pre-assessment Response</b>	<b>Post-assessment Response</b>
4	“Asuming a student will act a certain way because of things you've heard or their background.”	“Based on our past expirences, we subconsciously create biases about people and situations.”
10	“We have thoughts about certain groups of people or stereotype without even realizing that we are doing it. Yesterday I had to go meet up with a deputy to pick up my friend’s stolen trailer for them. I was fully expecting a male deputy when I pulled in the driveway. I was very wrong! I recognized right away what I had done, but I would’ve never thought twice about it if it had been a male when I arrived.”	“We all have them and oftentimes do not recognize that we have them. It is important to have awareness of these biases so we can put a stop to them as they occur.”

**Question Five**

Participants were asked to rate their level of understanding regarding the opportunity gap and its appearance in schools. The post-assessment ratings were compared to the pre-assessment ratings to determine if development of ideas was observable (see Figure 5). Participant 4 self-rated her understanding at a 4, signaling a higher level of understanding of the gap, its presence in schools, and impact on students. Participant 4 had previously rated her understanding at a 3, signaling an awareness of the opportunity gap in schools. Participant 10 self-rated her understanding at a 5, indicating a deeper understanding of the opportunity gap. Participant 10 had previously self-rated her understanding at a 4. Both participants perceived their knowledge and understanding of the opportunity gap had increased.

*Figure 5.* Participants' post-assessment self-ratings regarding their understanding of the opportunity gap and its presence in schools.



### ***Question Six***

Participants were asked to provide evidence of their understanding about the opportunity gap. Participant 4's response improved in understanding, as it demonstrates knowledge of how students facing obstacles and barriers result in less opportunities for students. This participant's pre-assessment response focused solely on academic outcomes, which are impacted by the opportunities provided, but they are not the main reason educators should possess awareness of the gap. Participant 10's response demonstrates growth in understanding, as she discussed systemic barriers in society and incorporated statistical knowledge of graduation rates. Participant 10 discussed the impact of the opportunity gap on students, mentioning poorer health outcomes, increased dropout rates, and elevated exposure to the prison system. Participant 4 and 10's responses indicate a developed knowledge and understanding of multiple components of the opportunity gap, including why it exists and how it harms students. Table 13 reflects pre- and post-assessment responses for demonstrating understanding of the opportunity gap.

**Table 13**

*Participants’ pre and post-assessment responses discussing their knowledge of the opportunity gap.*

Participant Number	Pre-assessment Response	Post-assessment Response
4	“The academic outcomes of lower income students, students of color and english learners”	“Studnets that come from poverty or have disabilities are not given the same oppertunities as students that don't have any of these challenges. The gap starts in elementary school and grows the higher up in education they go.”
10	“There is a wide achievement gap among our students and this typically occurs between two different groups of students (based on race, gender, income, etc.)”	“○ Opportunity gaps between ethnicities, languages, students with disabilities, gender ○ There are things in our society that are actively working against a specific group of people. Have awareness of that. ○ EX: students of color graduating at lower rates than white students & are taking less challenging courses in high school. ● The opportunity gap can lead to lower earnings, poorer health, and increased contact with the prison system. It can also lead to overall higher dropout rates for high school and college. It can create lower rates of success in college, and lower test scores.”

***Question Seven***

Participants provided insight into their understanding of disproportionate discipline rates against students of color. Participant 4’s response showed minimal growth in understanding the components of discipline rates. This participant did acknowledge that the rates are higher against students of color, demonstrating awareness that can lead to advocacy but did not discuss why this alarming pattern exists. Participant 10 demonstrated substantial growth in understanding, stating no knowledge of rates or statistics on the pre-assessment to discussing the presence of higher rates and harsher punishments against students of color on the post-assessment. Both participants reflect growth in understanding but may benefit from further exposure to the discipline rates,



how it negatively affects students of color, and what teachers and schools can do. Table 14 depicts pre and post-assessment responses for discussing understanding of disproportionate discipline rates against students of color.

**Table 14**

*Participants' pre and post-assessment responses discussing understanding of disproportionate disciplinary rates.*

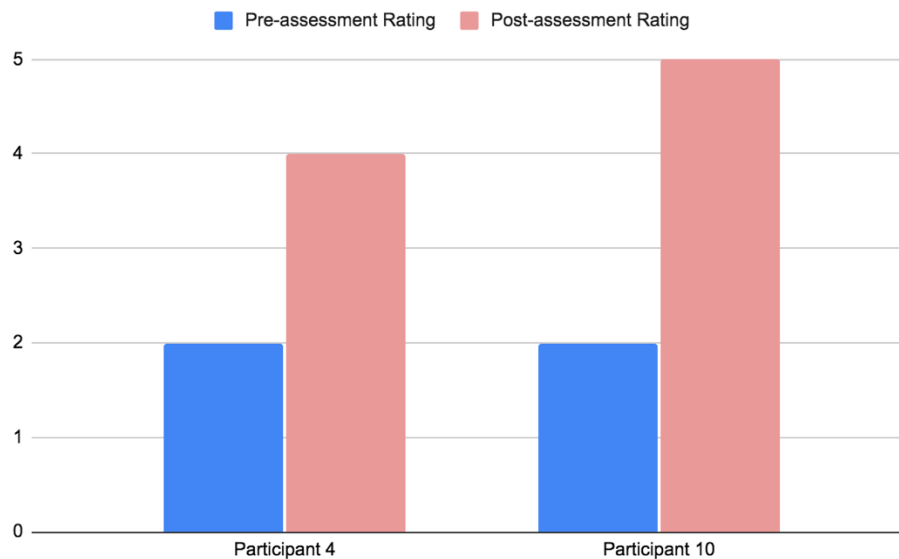
<b>Participant Number</b>	<b>Pre-assessment Response</b>	<b>Post-assessment Response</b>
4	"I don't know much but I do know it is very present in the classroom"	"That discipline rates for students of color are higher than white students."
10	"I have no knowledge of the exact rates or statistics."	"Students of color oftentimes have a harsher discipline than other students. For example, a six year old black child getting arrested.. that's ridiculous! Students of color do not always receive fair discipline because of their race. Students of color have a higher rate of being subjected to disciplinary actions than white students."

### ***Question Eight***

Participants were asked to provide a rating regarding their level of knowledge about the School-to-Prison pipeline, including its meaning and impact on students of color. The post-assessment ratings were compared to the pre-assessment to determine any levels of growth (see Figure 6). Participant 4 self-rated their understanding at a 4, indicating a deeper level of understanding the definition and potential awareness of how the pipeline impacts students in schools. Participant 10 self-rated their understanding at a 5, indicating extended knowledge of the pipeline. Both participants selected a rating of 2 on the pre-assessment, demonstrating limited awareness or understanding of the term and its presence in schools. Participants 4 and 10 show

powerful growth in their knowledge of the School-to-Prison pipeline, its harmful effects, and possible solutions.

*Figure 6.* Participants' post-assessment self-ratings regarding their understanding of the School to Prison pipeline and its existence in schools.



### *Question Nine*

Participants provided insight into their knowledge of the School-to-Prison pipeline and discussed any changes in understanding. Participant 4's response provided insight into their current understanding, stating "I now understand what the term means...". While this participant did not provide a detailed description of how their knowledge grew, their self-rating increased two points possibly indicating a personal perception of growth. Participant 10 provided a detailed understanding that reflects knowledge of the pipeline and an example of how it is present in schools, specifically through zero tolerance policies. Participant 4 and 10's pre-assessments reflected minimal understanding of how school disciplinary policies funnel students of color towards the criminal justice system. Post-assessment results indicate both participants indicate that they possessed a deeper understanding of the School-to-Prison pipeline after completion of

the presentation. Table 15 depicts pre- and post-assessment responses for examining understanding of the School-to-Prison pipeline.

**Table 15**

*Participants’ pre and post-assessment responses discussing evolving understanding of the School to Prison pipeline.*

Participant Number	Pre-assessment Response	Post-assessment Response
4	“I don't know much about it”	“I now understand what that term means and how students' academics and behaviors are looked out for that reason.”
10	“I have heard of it. That’s about it.”	“The school to prison pipeline is basically a link between public schools and prisons. Oftentimes schools do not correctly discipline students which can lead to negative effects (prison). For example, zero tolerance discipline does not help the student gain power over their choices. They feel as if they are just “bad” and don’t have the capability to make stronger choices. Sometimes this pipeline can also be due to inadequate resources.”

**Question Ten**

Participants were asked to describe any valuable insight into their beliefs and biases as a result of completing each module. Participant 4 discussed the opportunity gap and how the gap can be closed. The participant does not further explain what specific understanding they gained, but answers to previous questions reflect a deeper understanding of the gap. Participant 10 provided valuable insight into the alarming statistics presented in the modules, especially surrounding disciplinary rates against students of color. This participant expressed shock at the level of biases people can have against people of color, stating “... I believe that having awareness of this is a good starting point, and it will make me a better educator in the end.” Participant 4 and 10 provided valuable feedback into the effectiveness of the modules and highlighted specific personal knowledge gaps that may be decreasing as a possible result of

information accessed in each presentation. Table 16 depicts post-assessment responses to provide insight into participants’ beliefs and biases.

**Table 16**

*Participants’ post-assessment responses discussing any insight gained into their beliefs and biases.*

<b>Participant Number</b>	<b>Post-assessment Response</b>
4	“The oppertunity gap and how we can start to close that gap.”
10	“I think just recognizing that all of these statistics that seem impossible are very very true. I can’t believe we arrest 6 year olds. I can’t believe that prisons scope out little kids that will be potential inmates. I can’t believe that we have so many biases against people of color. However, I believe that having awareness of this is a good starting point, and it will make me a better educator in the end. I want to change these horrifying statistics and advocate for the children who can’t!”

**Summary**

This chapter reviewed the results from the data collected in the study. The next chapter will discuss conclusions, limitations, implications and recommendations.

## **Chapter V**

### **Discussion**

Educators have the ability to interact with students and families from diverse backgrounds and have a responsibility to understand the potential harmful influence of implicit biases on discipline policies, setting expectations, and the opportunities students are given, and discipline policies. The purpose of the research was to determine the understanding pre-service teachers possess about the role of implicit biases in schools, seen through disproportionate disciplinary rates, setting expectations, and the opportunity gap. Participants were provided explicit instruction and information before reassessing understanding of concepts. The results suggest that direct instruction over implicit bias and its influence in school discipline policies, expectations for students, and the opportunity gap provides pre-service educators with increased awareness, confidence, and understanding of harmful impacts and implementation of possible solutions.

### **Conclusions**

Data collected provides emerging evidence that pre-service teachers do not possess adequate understanding of implicit biases but understanding can be increased through explicit and specific instruction. Participants' pre-assessment responses revealed common misconceptions and incomplete understandings of multicultural education, implicit bias, the role of school disciplinary policies in fueling the School to Prison pipeline, and the opportunity gap. Participants expressed minimal understanding of how to be an effective multicultural educator, with many stating they had low self-efficacy related to multicultural education. Participants provided a rudimentary understanding of implicit bias, with only three participants acknowledging the implicitness of the bias. Participants conveyed minimal knowledge of

disproportionate disciplinary rates and the School to Prison pipeline, with many stating they had little to no awareness of these trends beyond acknowledging the existence of the pattern.

After engaging in three presentations designed to provide background information, impact on students, and possible solutions for disproportionate disciplinary rates, setting expectations, and the opportunity gap results demonstrate increased confidence and understanding in participants.

Participants' confidence regarding multicultural education did not reflect increased confidence in their abilities. These results may be explained by a lack of focused instruction on the components of multicultural education. Participant understanding of the opportunity disparity amongst students increased, with self-ratings increasing by one point to suggest improved recognition and insight. Participants recognized the opportunity gap is present among multiple types of diversity, including race, socioeconomic status, and exceptionalities. Data reveals the largest increase in participant understanding surrounding the School to Prison pipeline and its presence in schools. Participant self-ratings increased by two to three points, and their responses reflect awareness of how students' behaviors are viewed by teachers and how policies in place, such as zero tolerance, harm students and place them in contact with the prison system. Overall, these data support the claim that pre-service teachers are entering the profession with limited background knowledge of implicit biases and their dangerous impacts on students of color, but knowledge can increase with further explicit instruction and exposure.

The responses of participants reflect results similar to the literature, as one participant discussed a personal experience where her stereotypes and beliefs were challenged. Mahzarin Banaji provided insight into the influence of culture on formation of implicit biases and stereotypes (Montagne, Greene, & Banaji, 2016). Banaji presents a stereotype of male surgeons

and female nurses, which parallels a response from a participant, who was expecting a male sheriff and found herself surprised when a female sheriff arrived. When examining the responses defining implicit biases, participants expressed the understanding that biases are developed as a result of prior interactions with others and society. The responses provided from participants, specifically on the pre-assessment reflected limited understanding or awareness of the presence of implicit bias in schools that actively work against diverse populations. Despite this common theme, participants expressed a desire to learn more and examine their own biases. The research supports that participating in implicit bias assessments can provide educators with the awareness they desire and the tool for minimizing the impact of implicit biases (Bergh, Denessen, Hornstra, Voeten, & Holland, 2010).

### **Limitations**

Multiple limitations are present in the research, which impacted the collection of data and interpretation of results. Out of 14 people presented with the opportunity to participate, only 10 signed consent forms to move forward. Out of these 10 participants, only eight fully completed the pre-assessment. All 10 consenting participants received instruction as a result of the presentations being during a seminar course, but only two participants fully completed the post-assessment. With the extremely limited response to the post-assessment, the effectiveness of further instruction on raising awareness and decreasing the impact of pre-service teachers' implicit biases cannot be fully determined.

Another limiting factor is the length of the study and the placement of the research during the internship calendar. The study took place across three weeks, with no explicit time set aside for completion of the pre and post-assessments. If participants had the opportunity to complete the pre and post-assessments during the study's protected time, the results may have provided

more accurate and beneficial insight into any trends in knowledge acquisition. The overall length of the study asked participants to be present for multiple weeks during the school year. During the study, participants transitioned into new placements to meet new mentor teachers and students, which could explain the limited response on the post-assessment.

The instrument of the study presents an added limitation. A questionnaire format was used to collect qualitative and quantitative data to determine the presence of growth in understanding of participants. The questions asked on each questionnaire were not subjected to any reliability or validity measures, nor were they examined or formulated by an expert in the field of study. With better, more researched questions, it is possible that the study would have received more accurate responses and results. The topics of the questionnaire were selected based on the aspects of implicit bias determined important and influential by the researcher. As a result, the bias of the researcher may be present in the instrument of the study.

### **Implications**

The results of the research suggest that pre-service teachers do not possess a deep understanding of how implicit biases impact students of color through disproportionate disciplinary rates and harmful disciplinary practices, setting behavior and academic expectations, and gaps in opportunities. This information may prove beneficial to teacher preparation programs, as they develop courses and content. Pre-assessment responses provided valuable insight into participants' understanding of implicit biases' impact on students, especially as many participants expressed a desire to increase their knowledge. This information can prove helpful to higher education programs and to districts and administrators when designing professional development opportunities for pre-service and novice teachers. Without acknowledging that pre-service teachers are entering the profession to teach and interact with diverse students and



families with limited awareness of how their biases impact student learning, no efforts can be made to provide the necessary understandings.

### **Recommendations**

The following section discusses recommendations for instruction and research to be considered in the event of replicating the study.

#### ***Recommendations for Instruction***

The results of the study indicate that explicit, sustained instruction over a length of time is beneficial in providing participants with larger awareness and deeper understanding of implicit biases and their presence in schools. Instruction should seek to introduce and discuss overarching themes, examples of impact on students, and strategies for reducing the impact of implicit biases. Reflecting upon module instruction, it appears that providing stories of bias directly impacting diverse populations of students and engaging participants in activities creates opportunities for participants to examine harmful effects of implicit biases. Following a similar structure of content instruction by defining the problem, providing evidence and authentic stories, and discussing solutions allows participants to revisit content and identify the relationships among topics. The researcher found that inclusion of real-world examples and stories leaves a lasting impact on participants, increasing the chance the knowledge will be retained and a desire to improve. Module instruction was conducted through face-to-face sessions, which allowed the instructor to examine the visual responses and reactions of the participants to monitor understanding. Module instruction via an online platform may prove successful but could result in less impactful connections made by participants.

Participants benefitted from revisiting content introduced in the modules across each module presentation. Providing participants with background knowledge and multiple

opportunities to engage with and apply their learning through multiple activities allowed for more impactful understandings to develop. Implementing this format in teacher preparation programs, where content is discussed in earlier courses and consistently revisited in the context of each course would allow for multiple chances to synthesize and apply learning.

### ***Recommendations for Further Research***

Future research studies should aim to increase the sample size of participants to examine more trends in understandings and misconceptions surrounding the presence of implicit bias in schools and their impact on students of color. Increasing the number of participants would allow for more accurate and reliable data to discuss with pre-service teachers, preparation programs, and district administrators.

Further research could examine the student perspective on how they perceive interactions with teachers and administrators. Implicit biases of teachers directly affect students and researching their viewpoint may provide additional data to inform educators and administrators to provide professional development opportunities and to reexamine the existence and implementation of harmful policies.

### **Summary**

Chapter V discussed conclusions derived from data, research limitations, implications, and recommendations for future instruction and research. The impact of the results for teacher preparation programs and educators was considered. Overall, the research suggests that pre-service teachers benefit from extended explicit instruction over the negative role of implicit biases on implementing exclusionary and disproportionate discipline, setting and maintaining expectations for all students, and expanding the opportunity gap.

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## Appendix A

**Q1**

List your hometown. Include the both city and state.

**Q2**

How do you self identify?

- African American or Black
- Asian American
- Mexican, Mexican America, or Chicano
- Native American, American Indian, or Alaskan Native
- Other Hispanic, Latino, or Latin American
- Pacific Island, American/Pacific Islander
- Puerto Rican
- Southeast Asian American/Southeast Asian
- Two or more races
- White
- Other (If Other, list on the next question)

**Q3**

Other race/identity.

**Q4**

Describe the demographics of the classroom and school you are interning in. What type of diversity is present?

**Q5**

How do you define multicultural education?

**Q6**

Rate your confidence regarding being an effective multicultural educator. 1 being the least confident and 5 being the most confident.

- 1
- 2
- 3
- 4
- 5

**Q7**

Discuss your level of confidence regarding being a multicultural educator.

Page Break

**Q8**

Discuss what you know about implicit biases.

**Q9**

Rate your understanding of the School to Prison pipeline. 1 being I have never heard of this term and 5 being I have heard of it AND have a strong understanding of the meaning and how it may present in schools.

- 1
- 2
- 3
- 4
- 5

Page Break

**Q10**

Discuss your understanding of the School to Prison pipeline.

**Q11**

Discuss your understanding of disproportionate discipline rates against students of color.

**Q12**

Rate your understanding of the Achievement or Opportunity Gap. 1 being I have never heard of these terms and 5 being I have a strong understanding of the meaning AND how it is seen in schools/students/society.

- 1
- 2
- 3
- 4
- 5


Page Break

**Q13**  ...

Discuss your understanding of the Achievement/Opportunity Gap.



## Appendix B

**Q1** 

List your hometown. Include the both city and state.

**Q2**

How do you self identify?


- African American or Black
- Asian American
- Mexican, Mexican America, or Chicano
- Native American, American Indian, or Alaskan Native
- Other Hispanic, Latino, or Latin American
- Pacific Island, American/Pacific Islander
- Puerto Rican
- Southeast Asian American/Southeast Asian
- Two or more races
- White
- Other (If Other, list on the next question)

Page Break

**Q3** 

How do you define multicultural education? How has your definition changed, if at all?

Page Break

**Q4** 

Discuss what you know and currently understand about implicit biases.

Q5

Rate your understanding of the Opportunity Gap. 1 being I have never heard of these terms and 5 being I have a strong understanding of the meaning AND how it is seen in schools/students/society.

- 1
- 2
- 3
- 4
- 5

Q6

Discuss your understanding of the Opportunity Gap. How has it changed, if at all?



Page Break

Q7

Discuss your understanding of disproportionate discipline rates against students of color.



Q8

Rate your understanding of the School to Prison pipeline. 1 being I have never heard of this term and 5 being I have heard of it AND have a strong understanding of the meaning and how it may present in schools.

- 1
- 2
- 3
- 4
- 5

Q9

Discuss your understanding of the School to Prison pipeline. How has it changed, if at all?



Q10

What has been the most important insight provided into your own beliefs and biases as a result of completing these modules?



## Appendix C



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**To:** Lauren Lagan  
**From:** Justin R Chimka, Chair  
IRB Expedited Review  
**Date:** 10/13/2021  
**Action:** **Exemption Granted**  
**Action Date:** 10/13/2021  
**Protocol #:** 2109355566  
**Study Title:** Identifying the Implicit Biases of Preservice Teachers and Analyzing Their Impact on Students

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or [irb@uark.edu](mailto:irb@uark.edu).

cc: Marcia B Imbeau, Key Personnel

## Appendix D

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Q1

### Welcome to the research study!

We are interested in understanding preservice teachers' current awareness of racial implicit biases and understanding their impact on students. For this study, you will be presented with information relevant to developing an awareness of how our implicit biases can affect instruction, behavior management, and the overall well-being of students. You will be asked to answer some questions regarding your current understanding and awareness. The study will require your participation in three presentations, which will provide the relevant information discussed above. These presentations will be recorded via Zoom and required to view as a participant if you are unable to attend the live sessions. After attending or viewing all three presentations, you will be asked to complete a follow up post assessment questionnaire aimed to evaluate your level of understanding and awareness. All responses and information collected will be kept confidential to the extent allowed by law and University policy. The pre and post assessments should take you around 15 to 20 minutes each to complete.

The presentations will range anywhere from 30-40 minutes each and be conducted via Zoom and a live session. If you are unable to attend the live session, you may contact the Principal Investigator, Lauren Lagan, for access to the recording. As a participant, you acknowledge that your voice and ideas may be heard if you choose to verbally speak during these sessions. There will be no camera present that will visually reveal your identity. Your participation in this research is voluntary. This research is not required of any course and there will be no grade attached to it. You have the right to withdraw at any point during the study.

The Principal Investigator of this study, Lauren Lagan, can be contacted at [llagan@uark.edu](mailto:llagan@uark.edu). The Faculty Supervisor of this study is Dr. Marcia Imbeau, who can be contacted at [mimbeau@uark.edu](mailto:mimbeau@uark.edu). If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's IRB Compliance Coordinator, at 479-575-2208 or [irb@uark.edu](mailto:irb@uark.edu).

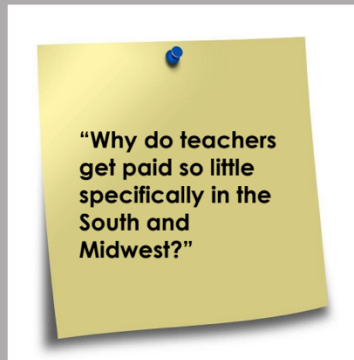
By clicking the button or signing below, you acknowledge:

- Your participation in the study is voluntary.
- You are at least 18 years of age.
- You are aware that you may choose to terminate your participation at any time for any reason.
- Your participation is not tied to a grade for internship or for courses at the University of Arkansas.

- I consent, begin the study
- I do not consent, I do not wish to participate

Appendix E

LET'S TAKE A LOOK!



SCHOOL DISCIPLINE

## Definition

School Discipline:

The rules and strategies used in schools to manage student behavior.

Examples:

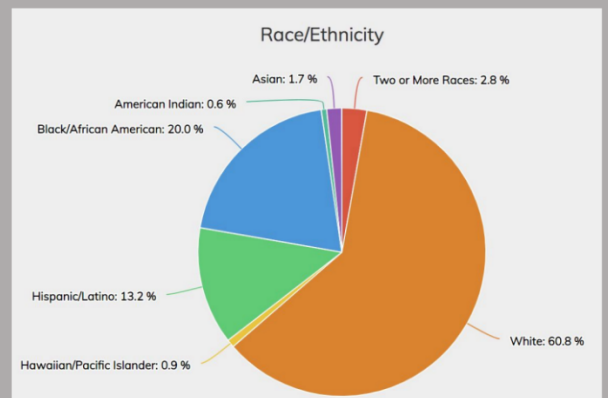
- Zero Tolerance Policies
  - Suspensions and Expulsions
- Sending students to the office for infractions.
- Taking away recess/free time or any distractions.



## Statistics

The data below and on the following slides is from the Arkansas Department of Education for the 2018-2019 school year.

Total Number of Students (PK-12)	478,318
African American Students	93,790
White Students	287,177
Hispanic Students	62,870
Asian Students	7,898

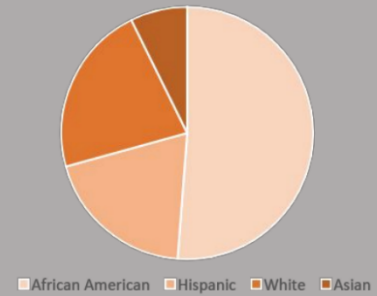


## In School Suspensions (ISS)

ISS is a suspension that allows students to remain in school and work but removes them from the rest of the student population.

In School Suspensions (ISS) Rates*	
African American	21
Hispanic	8
White	9
Asian	3
*Rates per 100 Students	

In School Suspension (ISS) Rates

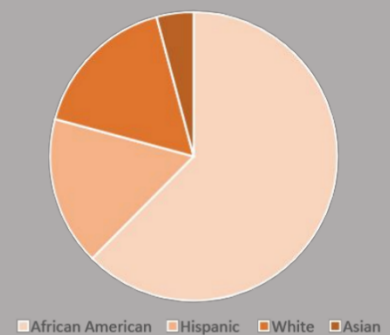


## Out of School Suspension (OSS)

OSS is a temporary expulsion of a student that bans them from school property and events.

Out of School Suspension (OSS) Rates*	
African American	15
Hispanic	4
White	4
Asian	1
*Rates per 100 Students	

Out of School Suspension (OSS) Rates

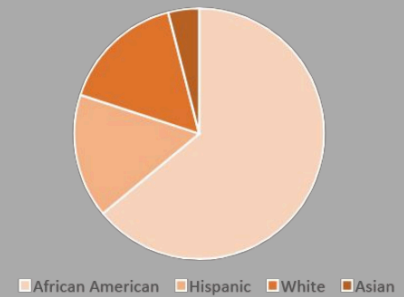


## Exclusionary Disciplinary Actions (EDA)

EDA is any action that removes students from their normal educational setting.

Exclusionary Disciplinary Actions (EDA) Rates*	
African American	16
Hispanic	4
White	4
Asian	1
*Rates per 100 Students	

Exclusionary Disciplinary Actions (EDA) Rates



## Zero Tolerance Policy

### What Is It?

- o A school discipline policy that implements extreme and exclusionary consequences for misbehavior, regardless of context.
- o Does not offer rehabilitative or support services for students.



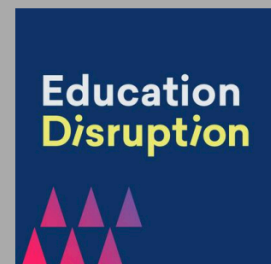
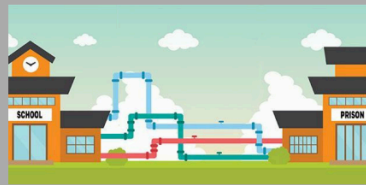
### History of the Policy

- o First introduced during Reagan's "War on Drugs" campaign to target drug traffickers.
- o Schools began adopting this policy in the late 1980s to combat drugs and weapons on school grounds.
- o By the late 1990s, schools had expanded the zero-tolerance attitude towards firearms, drugs, and alcohol offenses. It has since been extended to swearing, talking back, and dress code violations.



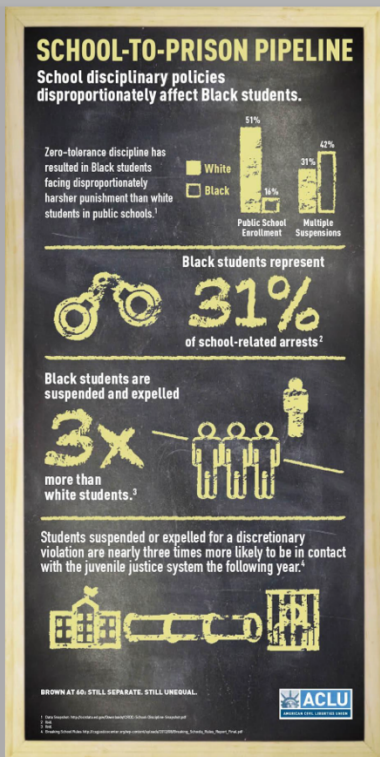
## Consequences/Effects

- Zero tolerance policies can increase contact with the juvenile system and contributes to the **school to prison pipeline**.
- Can lead to antisocial behavior.
- Places students at higher risk for dropping out.
- Disrupt academic progress, leading to grade repeating and low graduation rates.
- Affects minorities at a higher and disproportionate rate.



## School to Prison Pipeline

- There are many factors within schools and the education system that directly impact the pipeline.
  - Lack of resources.
    - Test scores that are used to determine funding and resources "... create incentives to push out low performing students to boost overall test scores." (ACLU)
    - "For instance, underperformance in early literacy development is consequential for these students in large part because **third and fourth grade reading scores and dropout rates** are **used to determine the future capacity needs of state prisons** (Allen & White-Smith, 2014). (Milner Text)"
  - Use of police in schools FOR discipline.
    - The ability for resource officers to make arrests at school.
  - Lack of training for teachers.
    - Teachers face behaviors and if they are unprepared to handle them, more often they will send the student to the office and increase chance of suspension.
  - Behavior management policies that serve to remove and expel students, specifically students of color.



**A.C.A. § 16-81-118. Citation and arrest by a school resource officer - Definition.**

(a) As used in this section, "school resource officer" means a school resource officer as described under § 6-10-128.

(b) A school resource officer may issue a citation to a person to appear in the local district court having jurisdiction over the place where a violation of state law occurred even if the school resource officer is outside of his or her jurisdiction if:

- (1) The school resource officer is accompanying students on a school-sanctioned event that takes the students outside the county in which the school is located;
- (2) The violation of state law is in conjunction with criminal activity that directly involves the students, school employees, or other persons participating in, observing, or assisting the school-sanctioned event; and
- (3) The person who is the recipient of the citation is a student, school employee, or other person participating in, observing, or assisting the school-sanctioned event.

(c) The school resource officer shall use a citation book that substantially complies with the citation requirements under § 16-10-205.

(d)(1) A citation issued under this section is not valid unless the school resource officer provides at a minimum:

- (A) The address and phone number of the district court having jurisdiction;
- (B) The date and time when the recipient of the citation is to appear in the district court;
- (C) A cite to the specific state law that was alleged to have been violated;
- (D) The printed name and date of birth of the person receiving the citation; and
- (E)(i) An opportunity for the person receiving the citation to sign the citation.
  - (ii) If the person who is to receive the citation refuses to sign the citation, the school resource officer is required to arrest the person and deliver him or her to the local law enforcement agency having jurisdiction immediately.
- (2) The school resource officer shall file a copy of the citation issued under this section at least fifteen (15) days before the court date listed on the citation.

**Florida officer fired for 'traumatic' arrests of two 6-year-old students at school**



- School resource officer had the ability to make an arrest.
- Two (2) SIX-year-olds were ARRESTED for DIFFERENT incidents.
- Charged with misdemeanor battery.

We could not fathom the idea of a **6-year-old being put in the back of a police car.**" (A quote from the Orlando Police Chief, Orlando Rolon.)

"I refuse to knowingly play any role in the school-to-prison pipeline at any age," Ayala said. "These very young children are to be protected, nurtured and **disciplined in a manner that does not rely on the criminal justice system to do it.**" (A quote from state attorney Aramis Ayala)

**Kaia's Story**

Kaia has sleep apnea and that had kept her from receiving enough sleep one night. She "had a tantrum in class..." and a school employee escorted her to the office. During this exchange, Kaia's wrists were grabbed and she responded by kicking back. She was then arrested and charged.

## Alternative Discipline Policies

What Teachers and Schools Can Implement Instead:

- o Social Emotional Learning
- o Trauma Informed Teaching
- o Restorative Discipline



## Social Emotional Learning (SEL)

The process of acquiring and applying knowledge and attitudes to develop healthy identities, manage emotions, show empathy, maintain positive relationships, achieve goals, and make responsible decisions.

There are Five Core Competencies (CASEL 5)

- o **Self-awareness**
- o **Self-management**
- o **Social Awareness**
- o **Relationship Skills**
- o **Responsible Decision Making**

Implementation Strategies

- o Build foundational support.
- o Strengthen competencies by forming a trusting community.
- o Promote by creating a coordinated, school or community wide approach.
- o Reflect on the data to encourage improvement.



## Trauma Informed Teaching

Teachers understanding how the various traumas students may experience impact their performance and behavior in school.

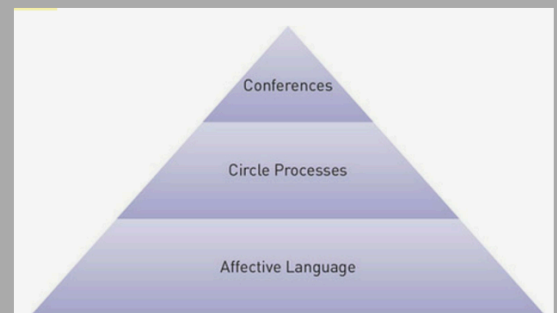


Commitments for trauma informed teaching.

- Attend to the practices, policies, and aspects of institutions that can traumatize students at school.
  - Look at the ways that students, families, and educators experience trauma at school.
    - Bullying of LGBTQI+ community or students with disabilities
    - Incidents often occur in patterns of traumatizing behaviors.
- Infuse trauma-informed education with an understanding of trauma caused by systemic oppression.
  - Racial injustices, police brutality, housing crisis, low wages are all systems of oppression students and families may face.
- Remove cultures and ideologies that promote punishing students for misbehaviors.
  - Do not turn to rule systems first, respond with concern and empathy to understand how students are failed by adults and systems in their lives.

## Restorative Discipline

- Based in **restorative justice**.
  - "... emphasizes allowing people to come to terms with and remedy harm that they have caused to others (Wachtel, 2016)."
  - Students are seen as members of a community.
  - Allows students to remain the classroom instead of being pushed out.
- Encourages students to take responsibility for how their actions have impacted others.
- Allows teachers and staff to handle the situation 'in house', which disrupts the school to prison pipeline.

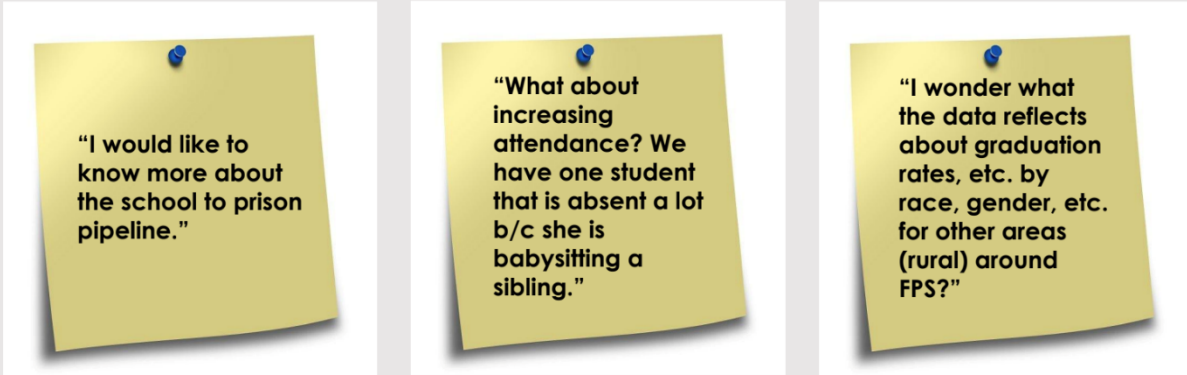


## Additional Resources

- Articles
  - [The School-to-Prison Pipeline](#)
  - [Are Zero Tolerance Policies Effective in the Schools?](#)
  - [Turning the Page on School Discipline](#)
  
- Videos
  - [Zero Tolerance Policies' Impact on School-To-Prison Pipeline](#)
  - [What Is Social and Emotional Learning \(SEL\)](#)
  
- Websites
  - [Collaborative for Academic, Social, and Emotional Learning \(CASEL\)](#)
  - [Teaching Tolerance](#)

Appendix F

LET’S TAKE A LOOK!



Race Graduation Rates

2018-2019 School Year (Farmington Public Schools)

Race	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
White	150/155	>95%
Hispanic	18/21	86%
Black	N/A (they had less than 10 students)	

2018-2019 School Year (Fayetteville Public Schools)

Race	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
White	453/505	90%
Hispanic	90/111	81%
Black	77/91	85%

# Economically Disadvantaged Graduation Rates

**2018-2019 School Year (Farmington Public Schools)**

Economically Disadvantaged	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Economically Disadvantaged	78/83	94%
Non-Economically Disadvantaged	99/102	>95%

**2018-2019 School Year (Fayetteville Public Schools)**

Economically Disadvantaged	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Economically Disadvantaged	296/363	82%
Non-Economically Disadvantaged	387/415	93%

# Students With Disabilities Graduation Rates

**2018-2019 School Year (Farmington Public Schools)**

Students with Disabilities	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Students with Disabilities	14/16	88%

**2018-2019 School Year (Fayetteville Public Schools)**

Students with Disabilities	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Students with Disabilities	79/98	81%

## Students With Limited English Proficiency Graduation Rates

2018-2019 School Year (Farmington Public Schools)

Limited English Proficiency	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Students with LEP	12/14	86%

2018-2019 School Year (Fayetteville Public Schools)

Limited English Proficiency	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Students with LEP	65/75	87%





## Definition

**Expectation:** A belief that someone should or will achieve something

- What teachers expect of students from different cultural backgrounds, genders, religions, socioeconomic status.
- Formed as a result of biases, prejudices, and beliefs of the teacher towards certain groups and the people who belong to those groups.

Examples:

- Praising girls for neat work while praising boys for thoughtful work
- Expecting a student from a certain ethnic background to perform better or worse in certain subjects
- Lowering curriculum standards

**Connects Back to Implicit Bias:** Thoughts, attitudes, and beliefs we hold in our **subconscious** that directly impact our attitudes, judgments, and interactions with people.

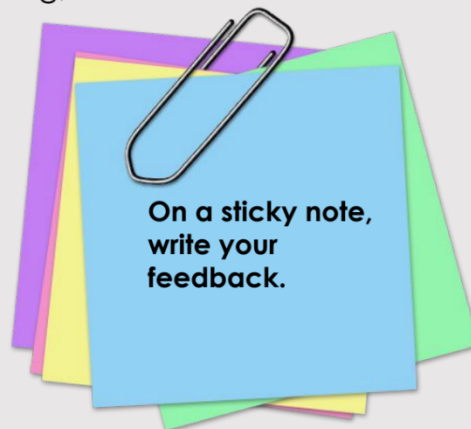


## Activity

[The passage was written by a second-grade student in the fall.](#)

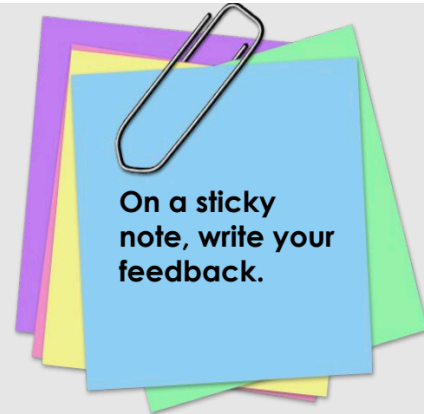
For this activity, you will grade your passage using;

- The following grade level scale:
  - far below grade level
  - below grade level
  - slightly below grade level
  - at grade level
  - slightly above grade level
  - above grade level
  - far above grade level



Now you will grade your passage using;

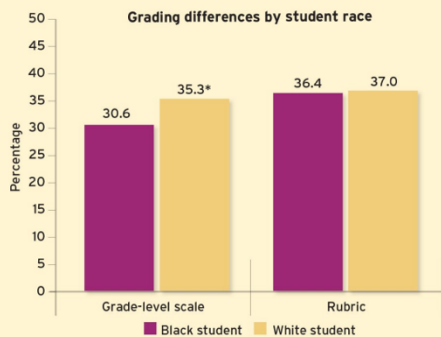
- The following rubric (from weak to strong):
  - **Weakest: Fails to recount an event**
  - **Attempts to recount an event**
  - **Recounts an event with some detail**
  - **Strongest: Provides a well-elaborated recount of an event**



## Let's Analyze!

### Rubrics Decrease Racial Bias in Grading Writing (Figure 2)

When teachers used a vague "grade-level" scale, they were 4.7 percentage points more likely to rate a white student's writing at grade-level or above compared to the same sample written by a Black student. However, when teachers used a rubric with specific criteria, the difference in grading for a white or Black student was no longer statistically significant.



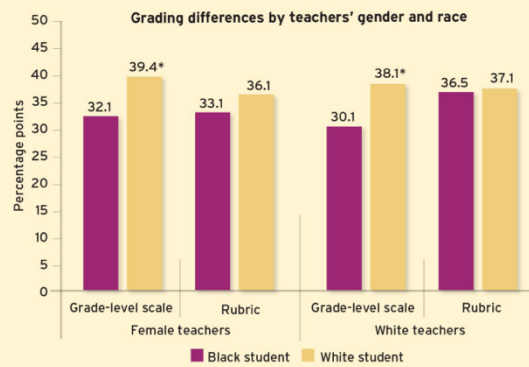
NOTE: Figure shows the percentage of teachers rating the assignment "at grade level" or above (Grade-Level Scale) or "recounts an event with some detail" or above (Rubric). Estimates are adjusted for teacher gender, grade-level, race/ethnicity, experience, and school racial demographics.

\* = difference in grades is statistically significant at the 95% confidence level.

SOURCE: Author's calculations

### Larger Grading Differences for White and Female Teachers (Figure 3)

The differences in grades assigned to Black and white students when using the "grade-level" scale were largest for female teachers and white teachers. Even for these groups, there were no statistically different differences in grading when the teachers used the grading rubric with specific criteria.



NOTE: Figure shows the percentage of teachers rating the assignment "at grade level" or above (Grade-Level Scale) or "recounts an event with some detail" or above (Rubric). Estimates are adjusted for teacher gender, grade-level, race/ethnicity, experience, and school racial demographics.

\* = difference in grades is statistically significant at the 95% confidence level.

SOURCE: Author's calculations

She was born to be an author



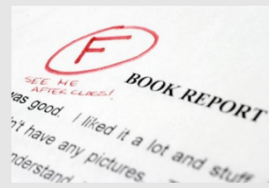
## Nominative Determinism

”Students are aware of their teachers’ expectations of them” (Milner p. 106).

”Students tend to live up to our expectations, especially during those critical identity development years from pre-K to 12th grade, when they are forming their senses of self (Rist, 1970)” (Milner p. 107).

## Consequences/Effects

- “Children tend to perform better according to their teachers’ expectations” (Parker, Beck).
  - If students sense a teacher has low expectations, they may:
    - Not put forth effort in school
    - Have poorer behavior
    - Have lower grades
    - Lose interest in school, which can lead to dropping out
- Students may perform below their ability when exposed to negative stereotypes about their culture, gender, or socioeconomic status.



## What can teachers do instead?

- Teachers can implement a challenging curriculum that holds **ALL** students to high expectations.
- Teachers can engage in self reflection of their ideology and beliefs and how they might affect expectation setting.
  - “Having high expectations for all students requires that **teachers be critically conscious regarding their beliefs of students’ abilities** (Howard, 2003; Saphier, 2017)... “



## What can teachers do instead?

o Teachers can:

- o Call on girls as much as boys and provide similar praises

This pattern of differential treatments based on gender begins in the early elementary grades and continues into college (Goldberg, 2016). Teachers tend to discipline boys more severely and provide them with more praise and feedback than girls. They praise girls' works mostly for physical appearance, such as neatness, cleanliness, or artistic quality, instead of content. In subjects like language arts and art, girls receive

- o Call on students with limited English proficiency as often as English proficient students
- o Realize the power of *positive framing*

are calling positive framing. By *positive framing* we mean that a teacher uses an optimistic and enthusiastic outlook when talking about all facets of student learning, believes and communicates to students that they can and will succeed, and holds the work of teaching and learning in high regard. All of these

- o Monitor their nonverbal behavior and actions
- o Demand the best from all students in an encouraging and kind way



## What do you find yourself still wondering about?



On a sticky note, write down any questions you have regarding grading and setting expectations.

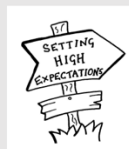
## Additional Resources

o Articles

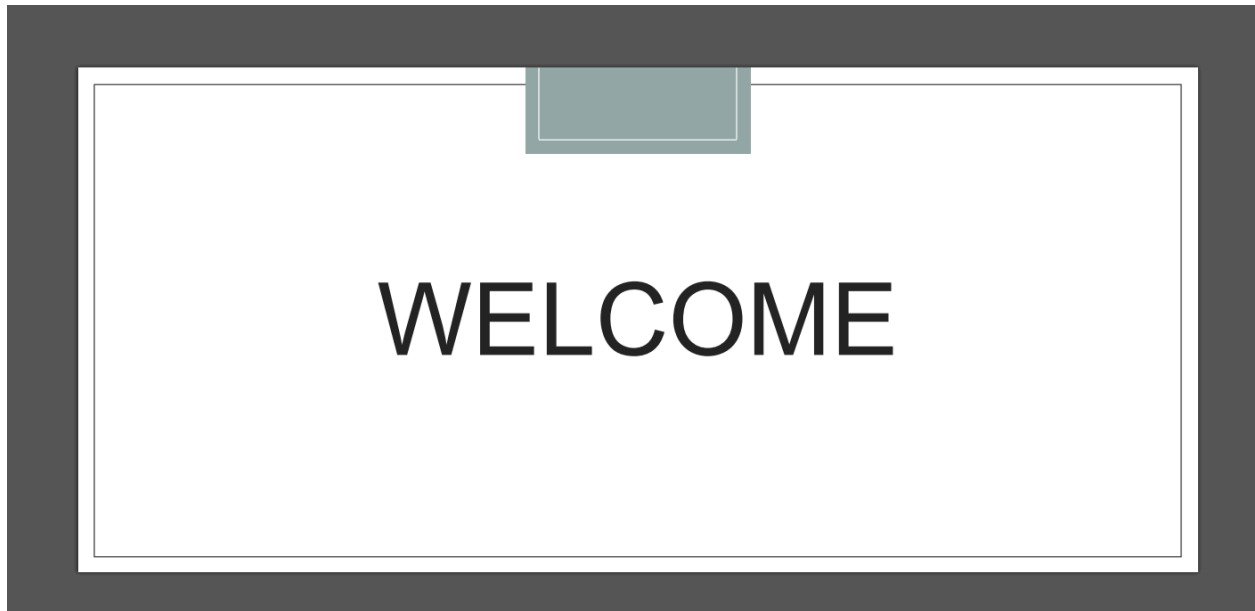
- o [High Expectations for All](#)
- o [Setting Expectations](#)

o Books

- o *Other People's Children: Cultural Conflict in the Classroom* by Lisa Delpit
- o *Becoming a High Expectation Teacher* by Christine Rubie-Davis
- o *Unconscious Bias in Schools* by Tracey Benson and Sarah Fiarman
- o "These Kids Are Out of Control" (Classroom Management Milner Text)




Appendix G



## What is Implicit Bias?

Thoughts, attitudes, and beliefs we hold in our **subconscious** that directly impact our attitudes, judgments, and interactions with people.

This can present itself in many ways (in all aspects of life):



Provide examples of how you have seen implicit bias or been impacted by it.

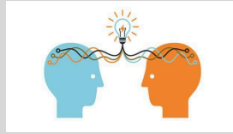
- Interrupting girls, choosing boys to help lift or carry items. (Gender Bias)
- Sending a student of color to the office for disrespect while allowing a white student to remain in the classroom . Racial Bias)
- Believing that a student or their family does not care about education because they do not show up at extracurricular activities, respond to communication, or their students are late to school.

These might seem like small, unimportant parts of the day, but students pick up on EVERY move you make. Students feed off your energy and they KNOW what your true beliefs are regarding their abilities, even if you cannot see them yourself.

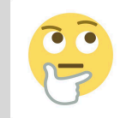
## Reducing the Impact of Implicit Bias

**Understanding**

**Awareness and Acceptance**



**Identification, Examination, and Reflection**



- What beliefs and ideas do you hold towards students of other races, ethnicities, socioeconomic status, gender?
- How might your beliefs have affected your interactions with students and what impact did it have on students?

**EMPATHY!**



## Achievement versus Opportunity

### Achievement

What comes to mind when you think of achievement?

- Accomplishing something using effort or skill

### Opportunity

What comes to mind when you think of opportunity?

- Situation allowing something to get done; a chance

Language matters! The terminology we use to approach the disparity reflected in test scores and graduation rates affects our understanding and reflects our beliefs surrounding the cause of the gap.

## Definition

The opportunity gap can be defined as:

- "... the disparities in test scores and academic outcomes that tend to follow well-established race and class patterns..." (Noguera)
- It is important to remember there are opportunity gaps between ethnicities, languages, students with disabilities, and gender

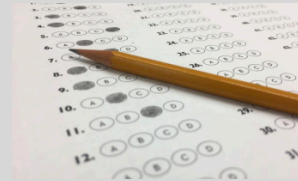
### Examples:

- Students of color graduating at lower rates than white students
- Students of color taking less challenging or lower amounts of classes in high school
- Students of varying socioeconomic levels have high dropout rates and lower reading achievement.



## Statistics: *Standardized Testing*

The following data reflects the math and reading standardized test scores for Grade 4 in the state of Arkansas for 2017 and 2019. The assessment is called the National Assessment of Educational Progress (NAEP).



The information was collected from The Nation's Report Card website.

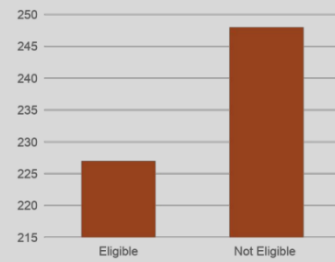
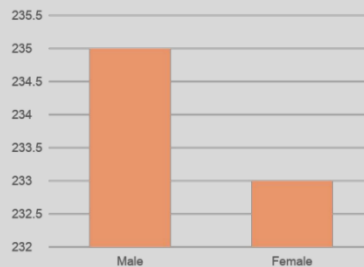
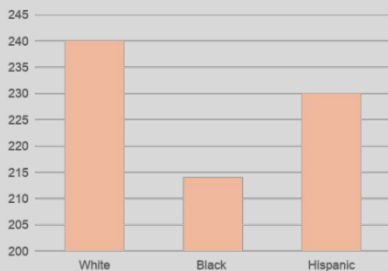


### Arkansas Grade 4 **Math** Report (2017)

Race/Ethnicity	Average Score
White	240
Black	214
Hispanic	230

Gender	Average Score
Male	235
Female	233

Natl. School Lunch Program	Average Score
Eligible	227
Not Eligible	248

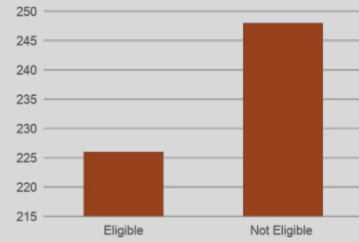
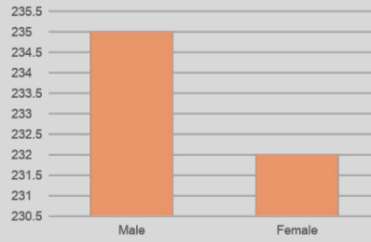
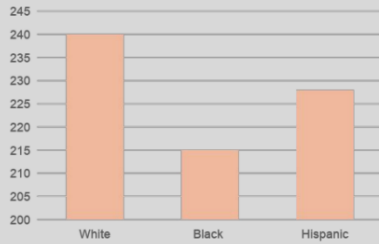


## Arkansas Grade 4 Math Report (2019)

Race/Ethnicity	Average Score
White	240
Black	215
Hispanic	228

Gender	Average Score
Male	235
Female	232

Natl. School Lunch Program	Average Score
Eligible	226
Not Eligible	248

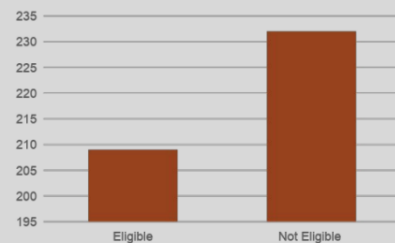
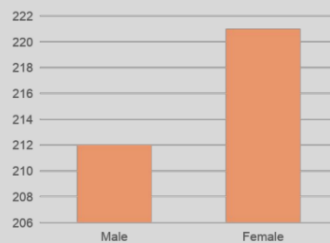
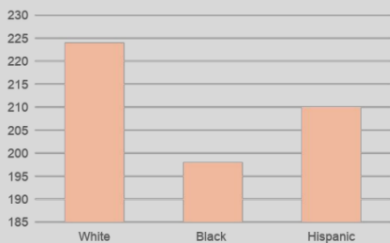


## Arkansas Grade 4 Reading Report (2017)

Race/Ethnicity	Average Score
White	224
Black	198
Hispanic	210

Gender	Average Score
Male	212
Female	221

Natl. School Lunch Program	Average Score
Eligible	209
Not Eligible	232

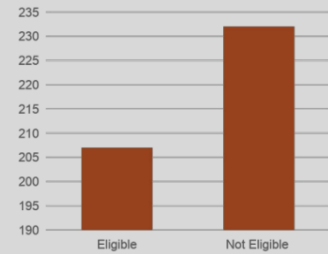
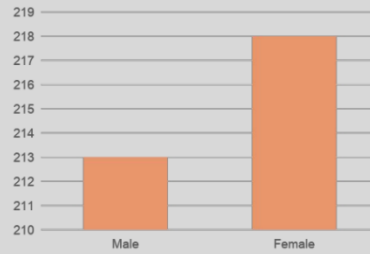
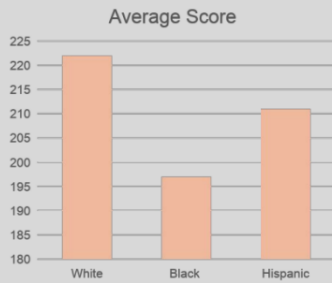


## Arkansas Grade 4 Reading Report (2019)

Race/Ethnicity	Average Score
White	222
Black	197
Hispanic	211

Gender	Average Score
Male	213
Female	218

Natl. School Lunch Program	Average Score
Eligible	207
Not Eligible	232



## Statistics: *Graduation Rates*

The following data was collected from Arkansas' Office for Education Policy website and can be found on the Arkansas Department of Education website.



The data looks at the Fayetteville District graduation rates for the 2017-2018 school year and the 2018-2019 school year.



## Overall Graduation and Student Statistics

### 2017-2018 School Year

- 10,017 students enrolled
- 735 students expected/eligible to graduate
  - 678 students graduated
- Overall graduation rate of 92%
- Overall Student Breakdown by Race
  - Black- 9%
  - Hispanic- 12%
  - White- 68%

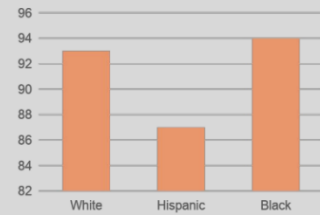
### 2018-2019 School Year

- 10,334 students enrolled
- 778 students expected/eligible to graduate
  - 683 students graduated
- Overall graduation rate of 88%
- Ethnicity percentages
  - Black -10%
  - Hispanic- 12%
  - White- 68%

## Race/Ethnicity Graduation Rates

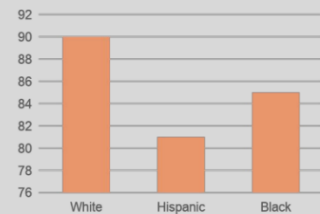
### 2017-2018 School Year

Race/Ethnicity	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
White	473/511	93%
Hispanic	76/87	87%
Black	72/77	94%



### 2018-2019 School Year

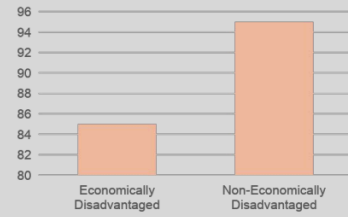
Race/Ethnicity	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
White	453/505	90%
Hispanic	90/111	81%
Black	77/91	85%



## Economically Disadvantaged Graduation Rates

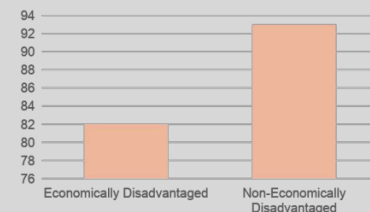
### 2017-2018 School Year

Economically Disadvantaged	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Economically Disadvantaged	262/307	85%
Non-Economically Disadvantaged	416/428	95%



### 2018-2019 School Year

Economically Disadvantaged	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Economically Disadvantaged	296/363	82%
Non-Economically Disadvantaged	387/415	93%



## Students with Disabilities Graduation Rates

### 2017-2018 School Year

Students with Disabilities	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Students with Disabilities	73/86	85%

### 2018-2019 School Year

Students with Disabilities	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Students with Disabilities	79/98	81%

## Students Limited English Proficiency Graduation Rates

### 2017-2018 School Year

Limited English Proficiency	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Students with LEP	54/65	83%

### 2018-2019 School Year

Limited English Proficiency	Graduation Rate (Number of Students)	Graduation Rate (Percentage)
Students with LEP	65/75	87%

## Consequences/ Effects

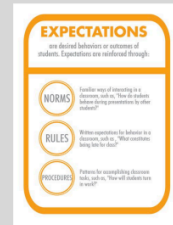
- The achievement gap can lead to lower earnings, poorer health, and increased contact with prison system.
- Overall higher dropout rates for high school and college.
- Lower rates of success in college.
- Lower scores on standardized tests, which effects school funding.
- Students with disabilities often have lower quality of instruction even in inclusive classrooms, which can lead to lower scores on standardized tests.



## What can teachers/schools do instead?

### Teachers can:

- Hold all students to high standards and implement a challenging curriculum.
- Ensure they have a strong background knowledge of the content.
- Reflect on their ideologies and attitudes towards students of color, genders, and socioeconomic status.



### Schools can:

- Implement afterschool and summer school care programs for families.
- Reduce class sizes.
- Create more community-based programs that allow parents and families to get more involved.



## What do you find yourself still wondering about?



On a sticky note, write down any questions you have regarding implicit bias or the achievement/opportunity gap.

## Additional Resources

### Articles

- [Gender Achievement Gap](#)
- [Race and the Achievement Gap](#)
- ["What is the Achievement Gap and What Can Educators Do About It?"](#)

### Books

- *The Knowledge Gap* by Natalie Wexler
- *Narrowing the Achievement Gap* by Thomas Timar and Julie Maxwell-Jolly

### Websites

- [The Nation's Report Card](#)
- [Harvard's Project Implicit Test](#)