

**Teacher Engagement and Reflections of Attitudes Toward Students, Race, and Self
following STEM Summer Enrichment**

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Abstract

This article explores critical studies in education by examining avenues through which teacher education programs problematize racial mismatch in K-12 classrooms. More specifically, the article describes the efforts of a regional teacher education program to support its pre-service teachers by providing opportunities to engage with racially diverse populations of students. This was accomplished through an elementary and middle school STEM summer enrichment program serving over 500 students from Title I schools. Pre-service teachers were surveyed about their experience and reported how they perceive students, race, and themselves within the context of a Title I school setting. Findings, centering on the exploration of pre-service teachers' attitudes, suggest the need for pre-service teachers to be engaged with diverse school settings and populations during their teacher education programs.

Keywords: STEM; Teacher attitudes; Culturally responsive teaching; Summer enrichment

Racial demographics are changing in public education across the U.S. and trending toward an increase in the percentages of students of color (USDE, 2017). By contrast, the demographics of teachers are changing, but at a much slower rate. At the time of this study, 80%

of public-school teachers were White, yet less than 50% of the students were classified as White (USDE, 2017). These demographics position the teaching workforce as a mismatch with most of the students being taught. Considering the potential implications of racial mismatch on student academic growth (Gershenson et al., 2016; McGrady & Reynolds, 2013), teacher education programs need to prepare pre-service teachers to work in diverse environments and with diverse populations of students, particularly with students of a different race or ethnicity.

This article describes the efforts of a regional teacher education program to actively support its pre-service teachers by providing intentional opportunities to actively engage with students with different racial and ethnic backgrounds from themselves. The purpose of this paper is to examine teacher attitudes about students, race, and self while working in a science, technology, engineering, and mathematics (STEM) summer enrichment program. The findings center on the exploration of the attitudes of the pre-service teachers as they engaged with the students in a Title I school in an urban setting.

Literature Review

Teacher education programs are charged with providing rigorous training, internships, and residencies for pre-service teachers to transform them from pre-service teachers into in-service teachers (Ladson-Billings, 2000; Morey et al., 1997). These programs are an integral part in the cycle of developing educators who can prepare children to take on important roles in society (Ladson-Billings, 2000; Morey et al., 1997). The role teacher education programs play in preparing pre-service teachers is implemented differently across the country based on the diverse needs of the city, state, or region the pre-service teachers will serve (King & Butler, 2015; Ladson-Billings, 2000; Morey et al., 1997). One area of inconsistency is multicultural education and diversity curriculum (King & Butler, 2015). The discrepancies in academic outcomes

between students of color and their White counterparts (Battey et al., 2018) has led researchers to identify numerous factors leading to disproportionate student achievement outcomes (see Banks et al., 2001). Teacher training is only one of those factors, and it can be addressed by enhancing the focus of teacher education programs (King & Butler, 2015; Ladson-Billings, 2000; Morey et al., 1997). To that end, more in-depth training is needed for pre-service teachers in working with diverse populations of students.

The current inconsistency in implementation of multicultural education and diversity courses in teacher education programs has the ability to maintain the current ways of teaching that consistently results in large populations of students of color achieving at rates lower than their White counterparts (Akiba, 2011; Battey et al., 2018; USDE, 2017). Further, knowing how to teach and connect with students from diverse ethnic backgrounds is crucial, especially during a time when 80% of the K-12 public school teaching force consists of middle-class, White women (USDE, 2016; USDE, 2017), and over the past 50 years, student demographics in public schools have shifted from a predominantly White to a more diverse student enrollment (Darling-Hammond, 2018; Snyder, 1993; USDE, 2017).

Racial Mismatch Between Pre-service Teachers and Students

The contrasting demographic makeup of public-school teachers and the students they serve has resulted in large-scale racial mismatch (McGrady & Reynolds, 2013) in classrooms across the country. Racial mismatch, as situated by McGrady and Reynolds (2013) and Warren (2015), adds to the academic achievement gap between Black students and their White counterparts. This connection is seen in scholarship that notes that teachers' beliefs about their students' academic abilities, which are often tied to race (e.g., stereotype threat (Steele, 1997,

2018)), rooted in whiteness, influence teaching and thus student outcomes (Akiba, 2011; Battey et al., 2018; Saphier, 2016).

Furthering the research on racial mismatch, Morton et al. (2020), explored its effects through the cultural inability of me (CIM) framework. CIM is described as “a culture-created inability that primarily manifests as mental or cognitive limitations to a person’s ability to engage authentically with persons with varying degrees of cultural difference” (p. 127). This theory posits that all teachers working in situations of racial mismatch have an inability to engage in educational excellence with people different from themselves. Further noting that while the inability does not have a solution, there are accommodations to lessen its impact on students’ academic outcomes (Morton et al., 2020). While these accommodations do not solve CIM, they can offer access to the tools and dispositions necessary to engage with others in educational excellence. CIM is strongly linked to implicit bias (Greenwald & Banaji, 1995; Greenwald et al., 1998), which is evident when educators engage in educational settings with preconceived beliefs about their student’s academic ability (Staats, 2016). The bias manifests in many ways including instructional grouping of students (Skaalvik & Skaalvik, 2010; Tenenbaum & Ruck, 2007) and through the inconsistent implementation of curriculum based on teacher beliefs and not student data (Lyons-Moore, 2014). While CIM may appear to be a hopeless prognosis, scholars note that there are accommodations for this inability that supports educators in being more culturally responsive in their practices. As racial mismatch between teachers and students is studied more, the implications on student achievement becomes more evident (Gershenson, 2016). Nevertheless, misconceptions held by teachers about students’ academic ability continues to be one of many important issues that complicate teacher education and teaching in general (Gershenson, 2016).

Teacher Perceptions of Self, Students, Race, and Preparation

Providing multiple field experiences that provide pre-service teachers opportunities to engage with diverse populations of students is vital to the preparation of teachers (Coffey, 2010; Miller & Mikulec, 2014; Sleeter, 2008; Warren, 2018). Doing so helps to develop pre-service teachers' self-awareness and their understanding of the sociocultural and economic issues affecting the lives of students from diverse racial and ethnic backgrounds (Roofe, 2015). Pre-service teacher's self-awareness can be compared to Warren's (2018) application of empathy through perspective-taking which allows the pre-service teacher to develop "new views, knowledge, and understanding of racial and cultural difference" (p. 176). Because teacher education programs consist of mostly White females (USDE, 2016; USDE, 2017), Warren (2018) suggests providing field experiences in which they [the teachers] are the racial minority, engaging with students from "cultural communities different from their own" (p. 176), which allows the pre-service teacher to adopt the students' perspective to better understand the culture that is different from their own.

Sleeter (2008) acknowledges that before a White teacher can successfully teach students of color, they need to be critically aware of the dominance of their identities and fully believe that their students deserve to see many kinds of people modeled in class. Further, it is important for "pre-service teachers to examine their own backgrounds and experiences to identify assumptions, beliefs, and values, as well as cultural contexts in which they grew up, which impact[s] on how they understand schooling and students" (Sleeter, 2008, p. 114). Learning across multiple field experiences that engage with diverse populations of students provides pre-service teachers with access to opportunities to learn from and about others. Additionally, they are provided with opportunities to develop the self-awareness needed to begin understanding

their own backgrounds. Once teachers fully understand their own backgrounds, they potentially have better footing to be able to understand the importance of students from diverse backgrounds (Warren, 2018).

As many pre-service teachers have had limited experiences interacting with people from culturally diverse backgrounds, there is a need to connect theory to practice by immersing pre-service teachers in classrooms that allow for diverse experiences working with students and teachers in diverse school settings (Mathur et al., 2017; Miller & Mikulec, 2014). Mathur et al., (2017) suggests a need to examine field experiences within teacher education programs to determine if pre-service teachers are provided experiences in high-poverty schools with diverse populations. Field experiences throughout the teacher education program should provide opportunities for pre-service teachers to examine their own definition of diversity and teaching (Miller & Mikulec, 2014) and to examine their role in ensuring equity for all in our current education system (USDE, 2016). The foundation to work through critical self-reflection (i.e., activities that provide opportunities to explore how personal beliefs and actions impact others) should be explored during coursework leading up to and throughout field experiences (Sleeter, 2008; Warren & Coles, 2020). Milner (2003) offers race reflective journaling and critically engaged racial dialogue as examples of critical self-reflection practices. During these activities, pre-service teachers reflect on and discuss their past and current experiences on race. By doing this, individuals may discover factors of “who they are as racial beings” (p. 177) and how that impacts their teaching of students from diverse backgrounds.

Additionally, an important focus within teacher education programs is the development of content and pedagogical content knowledge for pre-service teachers. However, to be an effective teacher, the classroom must be conducive to learning which includes classroom

management (Bradshaw et al., 2018). A perceived lack of knowledge of and preparation for classroom management is especially prevalent among pre-service and beginning teachers (Jackson et al., 2013; Putman, 2009). Field experiences in classrooms in which pre-service teachers can observe and implement research-based classroom management practices – with the support of culturally responsive mentor teachers, and culturally responsive university faculty – are necessary to influence changes in pre-service teachers’ beliefs and self-efficacy related to effective classroom management (Putman, 2009).

Given the need to provide opportunities for pre-service teachers in teacher education programs to engage with culturally and racially diverse students, it may be beneficial to create specific experiences that are representative of the schools in which they will be working (Warren, 2018; Warren & Coles, 2020). This study responds to this call to action guided by the question: How do pre-service teachers perceive their students, race, and themselves while working in a STEM summer enrichment program in a Title I school?

Method

This qualitative study is the product of a STEM-infused summer enrichment program for second grade through eighth-grade students taught by pre-service teachers. The purpose of the enrichment program was two-fold: (1) to provide students opportunities to engage with STEM content and minimize learning loss over the summer, and (2) to provide pre-service teachers an opportunity to engage in a practicum experience with the support of an experienced mentor teacher. To determine how participating pre-service teachers viewed students, race, and themselves, teachers’ perceptions were examined via survey at the completion of the program. The surveys asked open ended questions allowing participants to provide more elaborate

responses. These responses were then analyzed, coded, and arranged by themes. Participants, data collection, and data analysis are described below.

Participants

Forty-two pre-service teachers (16 of which completed follow-up surveys), current students and recent graduates of a predominantly White Southeastern four-year public institution, worked as teachers in a STEM summer program that primarily served Black students from Title I schools across the local district. The STEM summer enrichment program took place in the Southeast region of the United States on an elementary school and middle school campus. Thirty-two of the pre-service teachers (38 female and four male) taught at the elementary level (grades 2-5) and 10 taught at the middle school level (grades 6-8). Of the 16 participants (81% female and 19% male completing the survey), eleven (69%) were White and four (25%) were Black.

Across the district, students from Title I elementary and middle schools were invited to participate in the program. There were 832 students registered for the program, with 590 elementary students and 242 middle school students. The highest one-day attendance at the elementary level was 332 with a daily average of 290 students. The highest one-day attendance at the middle school level was 123 with a daily average of 115 students. The racial makeup of students was 99% Black. This is not representative of the district demographics which included 39.7% White, 49.7% Black, 4.4% Hispanic/Latino, and 6.2% as other for the previous academic year (National Center for Education Statistics, 2018; ALSDE, 2018b).

The invited students were from Title I schools that were also identified by the state as receiving a grade of C (70-79) on the state's accountability report (ALSDE, 2018a). According to school district leadership, many of the invited students at the middle school level had

experienced one or more academic years without a certified teacher of mathematics, which has unfortunately been a trend across the region for over a decade.

Study Context

The duration of the program was four weeks. Students attended the program Monday through Thursday, totaling 26 days, from 8 am to 3 pm. Students at both campuses, elementary and middle school, rotated through reading and STEM-based classes daily. They also participated in physical education and C.A.S.E. (character, art, and self-esteem) enrichment several times each week. C.A.S.E. in this context focused on providing outlets for artistic expression and building the students' self-esteem and self-worth.

The participants facilitated the learning experiences within the program for each of the daily experiences. For each grade level, there was a team of two teachers for each of the content courses—reading, mathematics, science, and mathematics and science extension (STEM). Of the 32 elementary teachers, four were secondary mathematics pre-service teachers, facilitating the fourth and fifth grade mathematics content. Of the ten middle school teachers, three provided daily instruction in English Language/Arts, three provided science instruction, and four facilitated STEM extension learning experiences. The participants were paired with a content specific mentor. The mentors were selected by the supporting teacher education program because of their content knowledge and proven track record of success in the classroom. Both teachers and mentors were supported by content experts from the sponsoring university through weekly professional development sessions covering a variety of topics (e.g., understanding the cultural proficiency continuum, discipline management, cultural self-reflection, building self-esteem, etc.).

Data

As the purpose of this study was to determine how the pre-service teachers perceived students, race, and themselves, a qualitative research design was employed (Johnson & Christensen; Leavy, 2014). An open-response survey was completed by the participants using the Qualtrics platform. To encourage honest responses from participants, requested demographic information was minimal; therefore, researchers did not connect participants to content area or grade level taught. See Table 1 for a list of survey questions specific to each of the three categories of students, race, and self. Sixteen participants completed the survey.

Table 1*Survey Questions Arranged by Category*

Category	Questions
Students	<p>Overall, what did you learn from the students that you did not know before you participated in this program?</p> <p>Now that you have had this experience, what surprised you the most about the students of the program?</p> <p>Now that you have had this experience, what surprised you the least about the students of the program?</p> <p>Describe your overall experience working with the students of the enrichment program?</p> <p>In your opinion, are there things or behaviors about urban students that are misunderstood? (Yes/No) Please explain your response.</p> <p>How would you describe the behaviors and attitudes of the students you worked with over the summer to a random person on the street?</p> <p>Please express anything else you would like us to know about the Summer Enrichment Program participants.</p>
Race	<p>When starting the program, were you concerned that your race would have an impact on how the students treated you? Please explain your response.</p> <p>Based on your experience this past summer, to what degree were you prepared to teach students from urban areas? Please explain your response.</p> <p>Prior to the start of the program, what were your concerns regarding your teaching ability (if any) in regard to interacting with students from urban areas?</p> <p>Did the program assist you in addressing those concerns? Please explain your response.</p> <p>Would you voluntarily seek out job opportunities in urban settings now that you have had this experience? Please explain your response.</p> <p>To what extent did the Summer Enrichment Program prepare you to work with diverse populations?</p>
Self	<p>What surprised you the most about yourself after having this experience?</p> <p>What would be one lesson that you have learned from your experience?</p> <p>Give an example of one eye-opening experience from the Summer Enrichment Program?</p> <p>In what ways has this experience helped you to grow?</p> <p>In what areas do you feel that you still need assistance?</p>

Analysis

Survey responses specific to each of the three categories—students, race, and self—were each independently, inductively open-coded by two researchers, with each survey question response being viewed as one unit of coding (Corbin & Strauss, 2008). The two researchers then compared their open codes within each category and grouped similar codes into themes; this produced a set of themes specific to each category. Coding one category at a time, the researchers then independently assigned one or more themes to each unit of coding within that given category. After re-coding the responses within each category, the researchers compared assigned themes and were able to reach consensus in all cases. Lastly, themes within each category were examined to identify patterns within the participants' responses. It is important to note here that one limitation of this study was revealed in the design of the survey questions. As a result of the design, the re-coded themes derived from analysis mirrored those of the survey. Some of the primary codes included themes related to students (e.g., behavior, background and experience, academic level, and ability); race (e.g., preparedness to work with student from diverse ethnicities and backgrounds, concerns of reverse racism, classroom management); and self (e.g., confidence, teacher responsibilities, preparedness to address classroom management). Researchers worked to identify other themes and, in this search, identified that the questions were more leading than intended. Nevertheless, the findings still provide implications toward positive outcomes from similar enrichment programs.

Findings

After the summer enrichment program ended, teacher perceptions of the students, the role of race in teaching, and themselves were examined. Perceptions specific to each of these larger categories are discussed below. Interwoven within the findings are interjections where primary

code themes revealed teachers' negative perceptions of student behavior and unproductive framings of student ability.

Students

A few responses described the students' behavior as "friendly" and "wonderful." Further, one participant stated that "They weren't perfect, but they were some of the best kids I've taught!" Similarly, participants recognized the mix of behavior in a single classroom and commented that they had not yet experienced "that much behavior mixed into one room before." Student characteristics beyond behavior included ability level and need for special education services. Participants described being surprised by how many of the students were low-achieving, and that some of the students could not even read. Still, others expressed concern about not knowing which students typically received special education services and not having access to that information or the students' individual education plans.

Although some students were described as low-achieving, participants described the expectations they had for all program participants to learn, and that they just needed to meet the students "where the students were." Another participant stated, "All students can be successful in learning math with time and dedication." Across these responses, participants communicated a commitment to supporting students in their learning, regardless of students' prior content knowledge and skills.

This commitment to connecting and supporting students was further evidenced as participants discussed the relationships they developed with their students. One teacher stated that although there were some issues, they enjoyed being with their students every day. Another participant described occasionally thinking about students after the program had ended.

Beyond specific characteristics of students, participants often discussed the learning opportunities that were afforded from working with the students. Most broadly, participants described the impact of the overall experience on their learning stating, “I learned many things about myself as a teacher being groomed,” and, “It was a good learning experience for me because it prepared me for my classroom.” Other participants provided more specifics about which aspects of the STEM summer enrichment program enhanced their learning. Most commonly, participants attributed the variety of learning abilities and student behaviors as providing the greatest opportunity for learning; “I believe this program was very educational. It helped me to work with students from all backgrounds and gave me experience in a small setting with support.” Other participants noted an improvement in classroom management skills from participating in the summer enrichment program. Learning was also attributed to the support provided by the administrators and mentors within the program—the opportunity to work with students with varied backgrounds and academic abilities, coupled with a mentor and administrator support, that provided the greatest teacher learning opportunities.

Alongside the presented findings there were findings about the perceptions of students’ behavior, background, and academic experiences that represented teachers’ negative perceptions of student behavior and unproductive framings of student ability. One instance of a teacher’s negative perception of student behavior can be seen when the participant reports, “The most surprising thing about my students was that they weren’t as bad as people labeled them to be.” Comments like this indicated that there were some preconceived notions about the behavior of the students attending the enrichment program. In another instance a participant attributes the students’ behavior and ability to the students’ home life, further expressing that “many of them have absent parents.”

Race

Multiple participants expressed an ability, confidence, or preparedness (or lack thereof) in teaching in predominantly Black learning environments. Some participants felt confident and prepared in their teaching and classroom management in the summer program. Other participants had prior experience teaching in diverse environments which led to their confidence stating, “I am teaching students in an urban area, and I have gained classroom management skills I use every day here” and “I went to school in an urban area and spent time prior to this program teaching in an urban area.”

Beyond teacher ability and confidence, participants varied in how they perceived race impacting their teaching. For some participants, race had minimal impact on their teaching and students’ learning, stating, “I don’t believe that race impacted the students as much as some people want to believe. I think all children just want to feel safe and trust the adult that is supposed to be teaching them.” Another participant was comfortable with their race but was more concerned with their teaching strategies and being successful in helping students understand the concepts being taught. One participant discussed the topic of reverse racism, stating, “Since the program focuses on urban students, reverse racism is a real possibility. Just like there is racism towards African Americans in an all-White community, there is also racism towards Whites when they step into an urban community.” Other participants believed race had an impact on their teaching and students’ learning and felt like students would relate to them more because they were the same race. Another participant described the difficulty she had in her classroom because she was a young, White woman, and she felt the Black students did not respect her as much. The participants’ responses also represented perceptions of unproductive framing of students’ ability based on race. One participant reported being “surprised” in their

own ability to be able to appeal to the students in the program. In another instance, a participant associated student ability with their “background and upbringing,” leaving little room for opportunities for teaching and learning to impact the students’ academic outcomes.

Race emerged in discussion around teacher growth and attitudes when working with students. For example, two participants attributed their growth in working with students from diverse backgrounds to the summer program. One participant stated, “It helped me to incorporate inclusion for students of different backgrounds and abilities,” and another participant stated, “I was able to work with many different backgrounds and upbringings and see how they affected their learning and behavior.” Additionally, race emerged in discussion around the pursuit of teaching jobs in schools serving predominantly Black students. During this discussion, one participant referenced their desire to pursue a job in such an environment, noting that working in the summer enrichment program served as reaffirmation.

Self

Multiple participants referenced their own teaching practice and ability when discussing their engagement with the summer enrichment program. Some participants were surprised at how well they performed in the classroom. For example, one participant stated, “I’m actually better than I thought.” Another participant stated, “I was surprised in my ability to appeal to the students given their ages.” Other participants discussed lessons they learned from this experience. For example, one participant was excited about finding multiple ways to teach and to reinforce concepts, while another described learning the importance of always being prepared. Participants also discussed eye-opening experiences from the summer program, such as the various assigned roles and duties (i.e., morning, bus, and cafeteria duty), and “being exposed to planning, decorating a classroom, professional development meetings.” Although participants

learned a lot about their teaching practice and ability, areas for improvement were noted. One participant stated, “I need more creative ways to present material and learn to be myself when I’m being evaluated,” and another participant stated, “I could still improve providing accommodations to students and handling classes that don’t care about grades.”

Beyond teaching practice and ability, an equal number of participants also discussed classroom management and their beliefs that the program helped confirm their decision to become an educator. Regarding classroom management, several participants still described this as an area of needed improvement. For example, one participant mentioned the need for assistance, stating “Managing the classroom to handle discipline issues and ‘problem’ students can be improved.” Participants also expressed confirmation of their practice or placement. For example, one participant stated, “It was exhausting but it was a rewarding journey. I learned more about myself as well.” Additionally, some participants were afraid of being in their own classroom for the first time and were afraid of failure. The importance of teacher-student relationships emerged in responses. Participants discussed the importance of being firm but also nurturing in the classroom, and that learning to develop relationships with students is just as significant as teaching them. Some participants also noted that they missed their students upon completion of the summer enrichment program. Finally, exploring the participants’ responses revealed several unstated misconceptions of their ability to engage with students different from themselves. In several cases, participants’ framing of their own ability was unproductive leading to their amazement when the students responded more positively than anticipated.

Discussion

The study sought to explore how pre-service teachers perceive students, race, and themselves, within the context of a STEM-focused summer enrichment program for students

from Title I schools. Our discussion applies a critical analysis to the presented findings and highlights areas of consideration for implementing STEM enrichment programs using pre-service teachers. The discussion follows the organization of the findings from perceptions of students, through perceptions of race, to perceptions of self. It is important to restate here that one limitation of this study was revealed in the design of the survey questions. As a result of the design, the themes derived from analysis mirrored those of the survey. Researchers worked to identify other themes and, in this search, identified that the questions were more leading than intended. Nevertheless, the findings still provide implications toward positive outcomes from similar enrichment programs.

Pre-service teachers most often perceived student behavior from a negative perspective (e.g., “awful”), and a result of difficult background and characteristics (e.g., “absent parent” or students being “urban”). It is important to note here that many participants conflated working in an urban setting as synonymous with working with students of color. In contrast, a few participants described students’ behavior as favorable. These perceptions of student behaviors, framed outside of the pre-service teachers’ locus of control, are representative of unproductive framings (Jackson et al., 2017) and perceptions of classroom management preparation and training (Jackson, et al., 2013). Regardless of the described behavior, the pre-service participants communicated a commitment to supporting the students in learning their respective discipline and to building relationships with the students. Pre-service teachers also viewed opportunities to work in a diverse Title I educational setting, coupled with support from mentors and program administrators, as an opportunity for learning and professional growth.

Pre-service teachers’ perceptions of race resulted in varying feelings of confidence and preparedness when teaching students in the program. Some pre-service teachers attributed their

confidence in classroom management to prior experience teaching in diverse settings.

Alternatively, other teachers were uncomfortable or were afraid of failure. With respect to the impact of race on teaching, some teachers believed that race had little to no impact, while others believed that because they were the same race as the students, teaching and classroom behavior was easier to manage. Expressions of these beliefs, explored in Morton et al. (2020), acknowledge that pre-service teachers could benefit from ongoing activities and experiences that promote and facilitate critical self-reflection (Sleeter, 2008; Warren & Coles, 2020).

Pre-service teachers' perceptions of themselves while teaching in this Title I educational setting were often described as positive. Several pre-service teachers were surprised in their ability to appeal to students, manage behavior, and successfully implement a variety of teaching strategies. They were also surprised by all the duties and extraneous responsibilities that go along with teaching positions such as morning and afternoon bus duty or lunch duty. With respect to student-teacher relationships, teachers realized the importance of their role in developing and nurturing teacher-student relationships as a foundation for successful teaching. The role of the pre-service teacher to foster relationships with students is not novel. It is echoed time and time again throughout multicultural education literature as pathways of critical self-reflection (Sleeter, 2008; Warren & Coles, 2020), developing effective classroom management (Bradshaw et al., 2018), and working in diverse environments (Banks et al., 2001).

Looking further into the pre-service teachers' responses there appears to be a key area of need across their teacher education program. In relation to teacher perceptions of students, pre-service teacher responses indicated that this experience in a Title I school setting with predominantly Black students was novel, thus leaving the participants relatively inexperienced in working with diverse student populations, diverse student behaviors, and diverse student

academic abilities. While participants reported being dedicated to student success, their language about students at times was deficit-based (Milner, 2016). These critical examinations bring to question the readiness of the pre-service teachers to truly engage with students across diverse populations.

Implications and Conclusion

Several implications for practice have been identified from this study. According to Roofe (2015), pre-service teachers should be provided training that is directly connected to diverse school contexts, including understanding the school setting in which they will teach and the socio-cultural background of the students. While the pre-service teachers in this study were provided diverse experiences in the classroom through the summer enrichment program, it was unclear if they were engaged in such in-depth experiences during their preparation program. Moreover, there were responses related to diversity of race. One participant believed that having a shared racial identity with the students would help them to relate better with the students. Yet, another expressed difficulty obtaining respect from the students because the students and the participant did not share the same racial identity. While the level of in-depth experiences with diverse populations prior to the summer enrichment program are unclear, it is worth mentioning that pre-service teachers with limited prior experience with ethnically diverse populations have less confidence in their ability to connect with the students (Miller & Mikulec, 2014). This lack of confidence, caused by limited prior experience, in working with diverse student populations is one of the impacts of racial mismatch (McGrady & Reynolds, 2013). Unchecked, the lack of confidence of working in racially and ethnically diverse settings can result in lowered expectations for the academic outcomes of the students (Morton et al., 2020; Putman, 2009).

Thus, teachers may benefit from more diverse field experiences within teacher education programs well before they begin student teaching.

A second area for consideration in preparing effective teachers is providing access to varying depths of knowledge surrounding classroom management. Several participants in this study identified classroom management as an area for needed improvement. This is supported by Putman (2009) who suggests that pre-service teachers need opportunities to examine their beliefs about classroom management and have experiences in classrooms in which best-practices can be observed and implemented. Expanding on this, it is important for pre-service teachers to examine the role race plays in the implementation of classroom management procedures (Milner, 2016). Providing ongoing opportunities to observe and manage the day-to-day classroom with the support of culturally responsive mentor teachers and culturally responsive university faculty may increase confidence in establishing a classroom that is conducive to learning for all students and minimize classroom management problems and concerns.

Finally, unproductive framings, “those in which student difficulty is attributed to inherent traits of the student or deficits in their family or community” (Jackson et al., 2017, p. 9), of the problems students’ experience academically appears throughout the data. Participants framed student misbehavior by associating it to their “home life” or “absent parents.” These unproductive frames made it more challenging for participants to identify instructional strategies to improve student behaviors. The deficit-based framings proved problematic and challenging to overcome in a short, four-week, period. These ways of thinking should be introduced and discussed in teacher education programs to allow pre-service teachers opportunities to discriminate between deficit-based and asset-based framings and practices.

The language surrounding the needs of pre-service teachers has been echoed through the literature over the last decade. Green et al. (2011) called for various forms of reform in teacher education programs including utilizing field experiences that engage students in diverse educational contexts. These field experiences support the growth and development of pre-service teachers in engaging with students from diverse environments. More specifically, as outlined above, there persists an unmet need for pre-service teachers to engage with students from diverse backgrounds and cultures. One question that remains is, why have these suggestions not been consistently implemented in teacher education programs? Future studies should focus on restructuring and evaluating teacher preparation programs to better meet the needs of the ever-changing student population.

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