SPOOKS, SAVIORS, AND SALTWATER:

COUNTER-NARRATIVES OF BLACK MALE MATH TEACHERS

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DEDICATION

To my wife, partner, and friend Kara for all that you do.

To my sun, Fonny Ocean, who brought new light into our world.

To my mother and father, who brought me into the world and spent the past year listening to me talk about this work.

To my brother and sister, for loving me and keeping me rooted in familial bonds.

To Phillip and Rachel, who have been there with me through this teaching journey.

To all my peers, friends, mentors, and colleagues who saw more in me than I did in myself.

To all who sacrificed so that I could be in this position.

Evan Marquise Taylor

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COUNTER-NARRATIVES OF BLACK MALE MATH TEACHERS

This phenomenological study explored the lived experiences of four Black male mathematics teachers in large U.S. urban areas, applying Critical Race Theory to examine the impact of education policies on their professional and political identities. The study aimed to contribute to the collection of narratives on the experiences of Black mathematics teachers, particularly Black men. To foreground these experiences, participant interview data is presented as a stage play in the form of instructive vignettes, centering the experiences, knowledge, and identity formation of Black male math teachers. By examining these intersecting identities across contexts, this study offers insights for policymakers and researchers to use in crafting supportive policies and practices that foster political identity development among Black men in the profession of teaching mathematics. Through interviews, the author explores participants' relationships with mathematics, their responses to anti-Blackness in mathematics assessments, and the development of their professional identities, with each vignette serving as a counter-narrative for analysis and interpretation.

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LIST OF ABBREVIATIONS

BMMT – Black male math teacher

BMMTE – Black male math teacher experience

CRT – Critical Race Theory

CRTME – Critical Race Theory in mathematics education

CS – Counter stories

NCLB – No Child Left Behind

NCBR – non-credit bearing and remedial

NCTM – National Council of Teachers of Mathematics

NOI – Nation of Islam

STEM – science, engineering, technology, and math

WIS – White institutional space

CHAPTER 1 – INTRODUCTION

I can recall my first year as a teacher quite vividly and can remember moments that shaped my early teaching identity as a Black male. I also remember how the sun rose through my classroom windows and how the chart paper altered the journey of the light beams across the laminate flooring. More specifically, I can remember arriving at the school building hours before the students and many other staff members' cars began to populate the parking lot. Through the early fall mornings, cold winter months, and wet mornings of spring I arrived at school to prepare for instruction. Some of my early preparation as a classroom teacher was rooted in my experiences in student teaching. I had to arrive at the train station early to catch a train just to transfer to another train before walking a few miles to my student teaching placement. I arrived early even then, often waiting in the hallway for the mentor teacher to arrive.

In my first year as a classroom teacher, I was measuring myself against my mentor teacher and my own beliefs about what was needed to be a successful teacher. It felt like I was competing against them. I was truly a child of the nineties and the popularity of the NBA and aspiring to emulate the competitive natures of Michael Jordan and Kobe Bryant. I wanted, and want, to be one of the greatest educators of all time and like Kobe and Jordan were focused on championships, I was and am focused on student performance on standardized assessments to model their proficiency. I was at school early in the morning because I needed to have materials ready for students to use and complete successfully so that I could have some of the best data that I believed would define me as a master teacher. I believed that if I pushed my students by setting high expectations and through having

them work from the moment, they entered the classroom until the moment they went home that we could achieve that goal.

In my first year, I stayed after school to engage in after-school tutoring rooted partly in the opportunity to support students by providing extra help, but more so rooted in my desire for them to achieve their goals…or mine. I was locked into the *mamba mentality*, defined and exemplified by Kobe Bryant, the Black Mamba. The mentality was all about arriving early and putting in work and leaving no space for fear or doubt. My mamba mentality, as applied to teaching mathematics, was rooted in the idea that if my students and I worked hard enough then we could prove doubters wrong who held negative beliefs about urban education and those who learn and teach within urban settings. I was not willing to let anyone stop us from achieving those goals to the point where some mornings I arrived and re-watch an inspirational 2005 interview between John Thompson and Kevin Garnett.

I watched the interview often in my classroom in the morning with the lights turned off with only the light of the rising sun and the computer screen. The interview has Coach Thompson asking Kevin Garnett about how he was making sense of the current season with the Minnesota Timberwolves. The year prior to the interview Kevin Garnett and his teammates had reached the conference finals. In the current season they were not having the same success. I was feeling the same way. When I taught with my mentor teacher, our students attained two to three years growth on NWEA, but alone, I was not seeing the same results despite my constant pushing of my students. I locked into the same portion of the interview each morning as I watched.

> JOHN THOMPSON: What's driving you? You play hard, you always play hard.

> KEVIN GARNETT: That I'm losing. That I'm losing…I'm losing. I'm losing.

Those words from Kevin Garnett resonated with me because I felt like I was losing in many aspects. One being that my students' scores were far behind when looked at through the lens of the achievement gap. Another aspect was that my pay was much less than my peers because I chose to teach in a Black suburban district outside of a major city. Thirdly, as a Black male I was led to believe that because of my Black masculinity I would be heroic or a savior to the school through my service in discipline and academics.

> KEVIN GARNETT: These are tears of pain. Tears of pride.
>
> JOHN THOMPSON: A whole lot of pride…you are doing as well as you did last year personally, but I tend to get the feeling that…
>
> KEVIN GARNETT: This ain't golf. This ain't tennis. It ain't about me. It's about us.

Though I would often be on the verge of tears, I struggle/d with my pride and my desire to excel the same way that my mentor teacher excelled. I was doing a lot of the things I had done in student teaching and had success with, but I did not feel as though it was translating in my first year of teaching, and I continued to feel this way throughout my career when I served in schools and analyzed them solely based on their standardized assessment data.

> JOHN THOMPSON: You are putting the burden of this team on your shoulders, aren't you? Are you taking the full responsibility for this?
>
> KEVIN GARNETT: I ain't got no choice. I see the Spurs. I see Shaq with his new team. You know I talk to Chauncey a lot…It's killing me.

All my university training and education did not mean much to me once I entered the classroom and the results of my teaching were measured in numbers. In that classroom and in many of the classrooms that I occupied throughout my career the metric was always how my students performed on assessments. I had read and believed all that was said to

me about the exclusionary nature of the assessments my students were taking but I wanted them to do well on the assessments. I wanted to be the Black male math teacher (BMMT) who I believed I was supposed to be and the savior that I was told that I was to be. At the time of this writing, I am entering my tenth year, and I wondered if I was the only Black male math teacher who grappled with this or felt this way as a teacher of mathematics.

I wondered if other Black male math teacher in urban schools negotiated the discourses of teaching mathematics and its connections to assessment and accountability in ways like me or if they found ways to negotiate teaching mathematics. I wonder about how they negotiated, or decided, their teaching practices to align with the needs for student performance on standardized assessment alongside the desire to develop equitable math classrooms. Much like former and current NBA players who reach out to current and former NBA players to ask them about their journey and negotiation of the industry, I wanted to do the same and analyze how we, as Black men, make sense of our place within mathematics teaching communities. I wanted to see how Black men negotiate moving to the center of mathematics teaching communities and the ways in which they develop their unique mathematics teaching communities to preserve our own experiences and knowledge of the practice of teaching mathematics in urban settings.

Statement of Problem

The knowledge and experiences of Black male math teachers in urban K-12 is under-researched in mathematics education communities. Black male math teachers either exist in the mathematics education research to make an argument for the recruitment or in historical contexts alongside Black women. The lack of research literature on their experiences ignores their existence and the value of their experiences in mathematics

teaching communities. The constructed invisibility of Black male math teachers (Gholson, 2016) has been countered through centering their personal narratives and counter-narratives to reveal our endemic, intersectional racialized invisibility in mathematics education research.

Jones-Joseph et al. (2021) called for researchers to document and analyze the mathematical experiences of Black teachers to further develop mathematics teaching communities that center their experiences. Matthews (2009) wrote about the importance and power of urban mathematics teachers sharing their personal narratives with the public for a variety of purposes. He noted that outside of the mathematics teaching community mathematics educators often live in obscurity. There could be a plethora of reasons why mathematics educators and their experiences reside in darkness. It can range from the public perception of mathematics or mathematics educators leading many to confide in those who teach mathematics that they do not prefer the subject and that we must have always excelled at the subject. When in community with other teachers of mathematics our focus can often be on students, curriculum, or teaching methods but not the story of ourselves and what has brought us to the work and art of teaching mathematics.

This concern or critique of Matthews regarding the public stories of mathematics is compounded when we analyze the lack of stories of Black mathematics teachers in the United States. Clark et al. (2013) began the analysis of the experiences of Black mathematics teachers pre- and post-de jure segregation in the United States to position them as key figures in the historical narrative of mathematics education. In their study, the authors noted that mathematics holds a high rank within the academic hierarchy and is closely associated with power and had been inaccessible to Black folk throughout US

history (p. 9). Throughout their article the authors engage in a critical cultural-historical framework that analyzes how historical policies and shifts in US society shaped and influenced the experiences and identities of Black mathematics teachers in the United States. Collecting and analyzing the public stories of Black mathematics educators introduces new considerations and visions for what is needed to support them in their practice and identity formation.

One of the earliest considerations of the experiences and knowledge of Black mathematics teachers is that of Ethel Harris Grubbs. In a 1941 publication in the National Council of Teachers of Mathematics publication *The Mathematics Teacher* Grubbs responded to how the national council could serve negro teachers. Within her response she lists the social and economic challenges that Black math teachers face in the profession because of the endemic racism throughout the country that impacted teachers as well as students. Grubbs writes about the lack of adequate training of Black mathematics teachers, and of their low salaries in comparison to White teachers of mathematics. Grubbs makes a note to highlight that even within the country where there were Negro teachers who were highly trained and were among the most intelligent, especially the women, many other fields in mathematics were not open to Black college graduates. She recommended that the council evaluate Negro schools led by these phenomenal Negro teachers in US cities such as Washington, Indianapolis, Atlanta, and New Orleans (p. 255).

Grubbs (1941) recommendation aligns with many of the aspects of what Matthews (2009) mentioned regarding the obscurity of the public narratives of math teachers, which acknowledges the obscurity of Black male mathematics educators. In this country the experiences and expertise of Black mathematics educators has varied because of the racism

and patriarchy in the US. We see this in the presence of possible scientists, doctors, engineers, inventors, and medical researchers confined to classrooms early in US history because they could not gain access to other more prestigious science, engineering, technology, and math (STEM) careers. Many mathematics educators in the United States following Reconstruction were university graduates prepared and trained to enter STEM fields as engineers, researchers, or doctors but due to racist beliefs about Black bodies and Black intelligence many Black people trained in STEM fields entered the classroom to teach STEM content to the next generation of Black learners (Manning, 1985). This meant that many teachers of Black students were not trained to teach mathematics but were rather professionals sharing their mathematical knowledge. A shift within the mathematics education community came to fruition when the scholarship of teaching and learning of mathematics with the development of mathematics education as a field of study included Black students going to university to become teachers of mathematics. The stories of Black men negotiating the field of mathematics and mathematics education is one that is necessary to provide a fuller picture and understanding of the complexity of their teaching experiences and identity formation in this country.

Mathematics education researchers and historians have documented the experiences of Black teachers through segregation (Foster, 1997; Siddle Walker, 2018) which has contributed to the narrative of African American education. Givens (2021) continued in this historical tradition in gathering historical data regarding how Black teachers developed and engaged in *fugitive pedagogies* through embedding the teaching of Black history into their curriculum. This same historical look at the experiences of Black educators of mathematics, and males in particular, is in infancy as much of this early work

looking into the experiences of Black folk in STEM education has focused on the experiences of Black learners of K-12 mathematics—not the teachers.

Martin (2009a) is credited as one of the first mathematics education researchers to bring a specific analysis of racialized mathematics learning experiences. In his analysis, he noted that the mathematics education goals of marginalized groups needed to reflect their needs within society. He examined how the structure of mathematics education developed a racial hierarchy of mathematical ability that often placed Asian and White students at the top and Black students at the bottom. This served as one of the backdrops through which CRT in mathematics education (CRTME) was grounded according to Jett (2012). Jett (2009) would take the work and groundwork of Martin and other scholars to analyze the mathematical experiences of Black male graduate students in mathematics or mathematics education.

Martin (2009b) broadened his critique of the mathematics education research community and policymakers as a *White institutional space* (WIS*)* (Moore, 2008). He supported this claim by noting that the scholarly norms, conceptions of teaching, learning and assessment are based on the norms and perspectives of white scholars. This built upon his 2008 analysis of the national mathematics advisory panel. Moore (2008), examining law schools as white institutional spaces noted that WISes have the following attributes: (1) the racist exclusion of people of color from positions of power, (2) the development of White normative frames that organize the logic of the institution, (3) historical construction of a curricular model based upon the thinking of Whites, and (4) the assertion of a race-neutral doctrine unconnected to power relations. One of the main processes through which

White policymakers and mathematics education researchers maintain their statues and power is through the passing of standards and the centering of the racial achievement gap.

While the work of Martin centers the racialized mathematics learning experiences of Black students, I aim to apply his same analysis to the racialized mathematics teaching experiences of Black males. The changing conditions of Black mathematics teachers across space and time are important as they move to the center of mathematics education community as researchers and practitioners. Martin's (2009b) analysis of the mathematics education research and policy making community centering the experiences and knowledge of White scholars and practitioners is why this study is important in responding to the call of centering and documenting the past, present, and future experiences of Black mathematics teachers (Jones-Joseph et al., 2021). In doing so we can understand the complex experiences of Black educators across their identities and continue the work started by Grubbs (1940) in her response to how the National Council of Teachers of Mathematics could best serve Black teachers. This study hopes to contribute to the documenting of the experiences of successful Black male mathematics teachers and to develop spaces for them at the table of mathematics education research.

As a practicing Black male K-8 teacher and mathematics education researcher, I have not found or read many texts that analyze the history of Black male teachers of mathematics. Much of my training as an educator was focused on the work of navigating new sociopolitical discourses as an urban mathematics teacher (Gutierrez, 2013b). The times when I read scholars who spoke about the history and experiences of Black teachers it has often been focused on their experiences pre- and post-de jure segregation and the histories did not address their experiences within STEM fields, particularly within

mathematics. I found this interesting because of my own background as a mechanical engineering major who shifted to a mathematics education major, because I found no insight into this journey outside of the classed nature of the calling that I was a triple threat with being a STEM-trained educator who was Black and male. I was told throughout my undergraduate classroom teaching experiences that I was a unicorn and that I would never have to worry about having a job. The challenge was that I was never informed about what the profession would demand of me and what my experiences would be through negotiating the mathematics education community as a Black man teaching Black students.

Much of the research that has been done thus far regarding Black teachers of mathematics has not offered a prismatic analysis of the experiences or identities of Black men who teach mathematics. A prismatic experience addresses the multiple identities of individuals and helps us to understand how the nuisance of identity impact experience. In the case of this study this prismatic analysis in looking at Black male math teachers is named to know that these experiences may or may not be the same as those of Black women math teachers. Other studies may position their study as a look at Black math teachers and will not address the reality that Black men and women experience teaching mathematics in unique ways based on their racial and gender identities. Frank and View (2017-2021) analyzed oral histories of Black mathematics teachers to explore the mathematical, racialized, and educational experiences of teaching during de facto segregation. This study engages in a phenomenological methodology to describe the experiences of three Black male classroom teachers of mathematics during the sociopolitical turn in mathematics education to analyze their negotiation of discourses within mathematics teaching communities.

Research Question

How do K-12 Black male math teachers negotiate policies/discourses in mathematics education?

Statement of Purpose

The purpose of this qualitative phenomenological study is to describe and analyze experiences of Black male K-12 mathematics teachers in urban schools located in the Midwest. This study analyzes how Black male teachers negotiate education policies/discourses that have influence on the teaching of K-12 mathematics through conducting a series of three interviews. The interviews collected were be analyzed for themes regarding the experiences of Black male classroom teachers of mathematics and their decision making.

Theoretical Framework

In the 1970s, a group of critical legal scholars gathered to discuss the inability of legal theory to fully address the experiences of Black people in the United States. The scholars noted that during the 1960s and 1970s the progress made during the Civil Rights movement of the 1960s was diminishing. These scholars noted the forms of systemic racism that was built into the framework of the country's exhaustion with discussing race (Delgado & Stefancic, 2011, pp. 3-5). While the legal scholars and lawyers sought to use critical race theory (CRT) to analyze and critique their experiences in the legal system, CRT has also been used to analyze the experiences of Black people in education, medicine, housing, and sports. CRT scholars subscribe to the following tenets that Delgado and Stefancic (2001) identify as hallmarks of CRT:

1. Belief that racism is normal or ordinary, not aberrant, in US society.
2. Interest convergence or material determinism.
3. Race as a social construction.
4. Intersectionality and anti-essentialism.

5. Voice or counter-narrative.

CRT in Mathematics Education

Tate (1994) recognized the challenges of Black students in learning mathematics in the United States and connected their experiences to tenets of CRT such as *race as a social construction* and *counter-narratives*. In his contributed chapter "Economics, Equity, and the National Assessment: Are We Creating a National Toll Road" in the book *New Directions for Equity in Mathematics Education*, he analyzed the role race and property rights play in the mathematics education provided to Black students. He addressed how school funding is predicated on property value and the taxes collected within a community to fund public education. His analysis found that Black students, who live in many large urban cities, attend schools that use a larger portion of their funds on food and health services than suburban and affluent schools. This differential spending enables schools with more affluent constituents in higher property tax bases to recruit high-qualified mathematics teachers, to provide access to high-level mathematics courses, and to better prepare students to perform on standardized mathematics assessment. The success of these students on standardized mathematics assessments gives them power in the form of control over what counts as mathematics curriculum due to their success rooted in their access to property.

Tate's analysis of Whiteness as property is found in his article composed alongside Gloria Ladson-Billings in their CRT analysis of how the property of Whiteness connected to physical property (Harris, 1993) impacts the education of Black students in the United States (Ladson-Billings & Tate, 1995). The work of Tate and Ladson-Billings was the genesis of the usage of CRT outside of legal studies and in the field of education. Education

scholars have used CRT to analyze and understand issues such as tracking, high stakes testing and controversies over curriculum and history (Taylor, 2023). Ladson-Billings and Tate (1995) analyzed the connection between property rights and education in the United States to draw parallels to educational inequities. They investigated the relationship between physical property and intellectual property in relation to Black students access to a quality public education. The authors analyzed how because of access to property, both land and bodies, White families maintain access to high quality public or private education through funding of public schools using property taxes. Black families received a second-class education because of the undervaluing or divestment of their property leading to schools that do not have access to the physical property (material resources) that would aid them in gaining access to intellectual property.

Tate continued to analyze mathematics education and the experiences of Black students through the lens of CRT (Tate, 1995b, 2005, 2008). Tate's work would serve as a catalyst for other mathematics education scholars to understand mathematics education issues such as mathematical proficiency, curriculum reform, Black mathematics learners' and teachers' experiences, and anti-Blackness (Davis & Jett, 2019). Tate focused on the experiential knowledges of Black mathematics learners to analyze mathematics education policies and positioned them as experts of their own experiences. Tate (1995a) analyzed how Black educators implemented culturally relevant pedagogy in their teaching of mathematics to Black students. His study centered the work of a Black teacher, Ms. Mason, who taught middle school mathematics centering Afrocentric pedagogy and students lived experiences to teach mathematics. He speaks to how her pedagogical practices worked to

center the experiences and experiential knowledge of her Black students instead of engaging in traditional mathematics teaching practices.

Mathematics education researchers contributed chapters to the book *Critical Race Theory in Mathematics Education* (Davis & Jett, 2019), in which they used CRT to analyze and describe inequities in the mathematics education of Black people in the United States. Their analysis was not limited to Black students but was extended to analyze mathematic curriculum reform, Black math teacher recruitment and retention, and the lived experiences and personal narratives of Black people in mathematics. The text and scholarship of the authors was situated in the continuation of the work started by Tate in which his 1995 article offered a prophetic vision to the relationship between mathematics education and Black people in the United States.

Frank (2019) authored a chapter that unpacked the Black mathematics teacher pipeline and analyzed the ahistoricism in speaking about Black educators in the United States particularly during the time of *Brown v. Board of Education of Topeka* (Brown v. Board, 1954). She lays out a framework for not only using a critical-historical framework to understand the contributions of Black mathematics teachers (Joseph et al., 2021) but goes further to investigate the intersectionality of Black mathematics teachers. In her analysis she speaks to the retention and recruitment of Black male mathematics teachers and its relationship to interest convergence and the permeance of racism in their expertise being confined to being disciplinarians vs. pedagogues. This dissertation study is rooted in the work and analysis of Frank and grows in the direction of exploring and analyzing the lived experiences of Black male mathematics teachers as they navigate mathematics classrooms. In the following sections, I describe the framework I used to connect the

navigation of Black male math teachers to tenets of CRT and relevant literature from mathematics education and other fields.

Mathematics Teacher Evaluation and its Relationship to Interest Convergence

Interest convergence was first theorized by Derrick Bell (1980) as he analyzed the impacts of the *Brown v. Board* decision regarding Black schooling experiences. Bell proposed that the purpose of the passage of Brown v. Board had little to do with the altruism of White citizens and more with the United States wanting to clean up their international image. Therefore, for a moment, the interests of Black and White citizens converged. Those interests being Black citizens desiring access to a quality public education and White citizens wanting to be cast in a better light as altruistic global citizens. The root of interest convergence is that minority groups progress only when their interests coincide with those in power, and in the United States that would be Whites.

Interest convergence appears *in mathematics education* when Black male teachers are drawn to mathematics classrooms to increase the mathematical proficiency of Black students, males in particular. The first layer of convergence is in the pride of the Black community at having Black men teach mathematics while the White interests are served through the teaching of culturally biased mathematics curriculum and values. It is seen further in the need for Black men to show student achievement on assessments to maintain their successful math teacher identity to receive more capital and White interests in maintaining focus on the achievement gap. Black male mathematics teachers are rewarded within mathematics education when their students perform well and can be admitted into higher level mathematics classes or enroll in STEM programs at universities. Black male math teachers are interested in serving and enabling their students to work within these

frameworks, however, White interests are served as Black male math teachers must have students master culturally biased forms of mathematics and perform well on standardized assessments to gain access to universities and careers that are White institutional spaces (WIS) (Moore, 2008). Martin (2013) characterizes these WIS by (a) numerical domination by Whites and the exclusion of people of color from positions of power in institutional contexts, (b) the development of a White frame that organizes the logic of the institution of discipline, (c) the historical construction of curricular models based upon the thinking of White elites, and (d) the assertion of knowledge production as neutral and impartial, unconnected to power relations. Black male math teachers make their community proud with the few that successfully navigate WIS and live in tension with those in classrooms who have no desire to exist within or flourish within WIS.

Racism As Normal

Critical race theorists assert that racism is a normal part of US society and that it is embedded into the systems that have been organized by the country. It is ingrained in US society and has blinded many individuals to the effects of racism daily. However, many Black citizens know first-hand the effects of racism when it comes to their interactions in society in areas such as schooling, medical care, and housing. Black male mathematics teachers note the racism in mathematics assessments and the knowledge valued in mathematics curricula focused on standards-based instruction. Battey (2013, 2016) examined the history of access and ideological property in mathematics education through a race-based analysis of assessment practices rooted in scientific racism. Battey (2013) wrote about mathematics education as a gatekeeper and as property exclusive to White students and families which can be understood through Harris' (1993) framing of

Whiteness as property. Within mathematics education, beyond the racial hierarchies of mathematical ability, the framing of mathematics as a cultural or neutral domain positions Black students and teachers as less intelligent or capable (Battey, 2016).

Racial Hierarchy of Mathematical Ability and Social Construction of Race

Scientists, psychologists, and historians agree that racism is socially constructed and maintains its hold upon people based on their belief in pseudoscience (Gould, 1981). Eugenics was a pseudoscience that was invested in trying to prove that race was rooted in science by demonstrating the intelligence of those of European descent surpassed all other races. The root of race is in the myth that those who choose to identify as White are better than those who do not identify as White. Furthermore, the proximity of an individual's race to Whiteness enables them to move through the world easier if they are not on the far side of the spectrum where Blackness resides. While critical race theorists accept the fact that race is a social construct, we also accept that the construct has implications on individuals' access to quality public education, healthcare, housing, and employment.

In mathematics education, we see the social construction of race through racial hierarchies of mathematics through beliefs about Black people and their performances on culturally biased math assessments (Martin, 2013). Martin (2009a) wrote how racial hierarchies of mathematical ability are juxtaposed with racial understandings with Black students and teachers being placed at the bottom of the hierarchy and White and Asian teachers placed at the top of the hierarchy. This framework is reinforced by rhetoric around the achievement gap in which Black students are seen as problematic and are indirectly told to aspire to perform on assessments like their White counterparts (Gutiérrez, 2008). Gutiérrez (2008) addressed the danger of this gaze and how it limits our view of Black

students and blinds us to their mathematical abilities outside of the gap gaze. The gaze and the assessments much like race are socially constructed to further validate beliefs about the intellectual ability of Black students and teachers. The binding of Black teachers to the identities of Black students is rooted in the fact that Black teachers were once Black students. The beliefs about Black students are applied to Black teachers who then have racialized experiences in the classroom rooted in deficit notions about the Black body in mathematics.

Black Male Math Teachers and Intersectionality

Kimberlee Crenshaw coined the term *intersectionality* in her 1989 paper, "Demarginalizing the Intersection of Race and Sex", where she analyzed three legal cases involving Black women that dealt with racial and sexual discrimination. Her analysis of the cases found that the legal system tried to engage in single-issue analyses of intersectional lives of Black women. Crenshaw (1989) wrote that the

> ...adoption of a single-issue framework for discrimination not only marginalizes Black women within the very movements that claim them as part of their constituency, but it also makes the illusive goal of ending racism and patriarchy even more difficult to attain. (p. 152)

Intersectionality enables CRT scholars to analyze the complex lives of Black male teachers of mathematics and how their gender, racial, and class identities impact their experiences. Intersectionality further pushes back on the monolithic representation of Black male math teaching experiences and even gendered experiences with the analysis of the intersection of identities such as sexual orientation, ability, and class. Gholson (2016) wrote that a prismatic analysis is necessary to describe and analyze the experiences of Black boys/men to reflect their intersectional identities. The interactions of their identities with power structures in mathematics teaching influence their political decision-making (Stinson,

2013). Black male teachers in classrooms are seen through a one-dimensional lens and are expected to serve as role models, disciplinarians, and father-figures to adequately serve the social needs of Black boys as determined by White eyes. These expectations limit the Black male mathematics teachers and denies them the ability to be seen as intellectuals and academic experts (Bryan, 2022).

Counter-Narratives of Black Male Mathematics Teachers

CRT values the experiential knowledge of individuals and their interpretation of those experiences. Solórzano (1998) wrote that experiential knowledge is "legitimate, appropriate, and critical to understanding, analyzing and teaching about racial subordination in the field of education...and draws explicitly on the person of color's lived experiences..." (pp. 122-123). The ability to engage in conversations with Black male math educators about their experiences is important as we seek to describe and analyze their experiences through the composition of counter-narratives.

Counter-narratives are a method of storytelling for those that reside on the margins and whose experiences are not told or are unheard (Solórzano & Yosso, 2002). They can dismantle or disrupt majoritarian narratives about marginalized communities, but do not need to be developed solely in response to majoritarian stories (Ikemoto, 1997). The composition of counter-narratives enables the survival of the experiences and knowledge of Black male math teachers through storytelling. Through gathering and analyzing historical documents, oral histories, interviews, or written narratives Critical Race theorists can develop stories. Solórzano and Yosso (2002) proposed that counter-narratives serve four purposes:

> (a) they build community among those at the margin of society by putting a human and familiar face to educational theory and practice (b) they can

> challenge the perceived wisdom of those at society's center by providing a context to understand and transform established belief systems, (c) they can open new windows into the reality of those at the margins of society by showing possibilities beyond the ones they live and demonstrating that they are not alone in their position, and (d) they teach others that by combining elements from both the story and the current reality, one can construct another world that is richer than either the story or the reality alone. (p. 36)

Through conducting interviews with Black male mathematics teachers and my composition of counter-narratives I hoped to build community among practicing mathematics classroom teachers in the United States. Through the sharing of Black male mathematics teachers' counter-narratives, other mathematics teachers and education researchers will be able to develop an understanding of the unique experiences of Black male math teachers they teach mathematics in the United States. The study analyzed their intersectional identities and how these identities show up in their political decision making and the relationship of their identities to interest convergence.

CHAPTER 2 – LITERATURE REVIEW

Black Male Prismatic Experience

The prevalence of narratives of White men and women and Black men and boys makes the possibility and vision of Black women and girls in mathematics impossible or structures them as invisible (Gholson, 2016). The process by which this has occurred historically has been done through the broad stroke analysis of Blackness that often does not consider the intersectional identities of race and gender. Meaning that Black boys, girls, men, and women experience mathematics spaces differently because of their racial and gender identities. Gholson (2016) writes:

> ...single-sex studies of Black boys and men in mathematics should conceptualize their theoretical space as intersectional or prismatic space (comprising race and gender) versus a one-dimensional, unambiguous space about being Black. The exclusion and lack of emphasis on intersectionality allows single-sex studies of Black boys and men to be read (i.e., understood) as primarily racialized narratives. (p. 297)

Many studies on Black males in mathematics education center on their experiences as students (K-16). In many of those studies the focus was centered on Black males as objects of policy and their reaction or navigation of those policies. In studies that analyze the experiences of Black males as teachers in mathematics education can position them as political actors or objects. To view and position Black men as political actors positions them as professionals with expertise who do not merely enact policies or ideas of others (Ellison, 2018). This study aims to analyze their experiences as teachers of mathematics and their political decision making. Viewing Black male educators as political actors and not objects of policy has its origins in Black teaching corps during the Civil War.

Black Male Teaching Corps During Civil War

Williams (2009) wrote about Elijah Marrs, and other soldiers of the Fifty-sixth regiment, who enlisted in the Union army during the Civil War. When these Black men enlisted in the Union Army, they were led to believe that they would be able to move up the ranks as soldiers in the army. Marrs believed his literate identity enabled him to move up higher ranks but often found himself carrying out the most grueling and distasteful tasks of the war (p. 50). As a child, Marrs learned to read and write because he believed that "he would have something important to do in the future" (p. 45). While he was able to teach many other Black enlisted soldiers how to read, he found his freedom limited by the White men in command of the army. Their teaching corps traveled and taught in various freedmen's villages believing that learning to read and write was essential to their identities and roles as freed people. Believing that their teaching of reading and writing salvaged their self-respect.

Black men entered the military to prove their masculinity (bravery) to White Americans and to guarantee the freedom of themselves and their people, they were implored by Frederick Douglass to fight. After proving their masculinity (bravery) on the violent terms of White men, they then sought out to have a say in their lives and experiences in this country. Black men serving in the army and learning to read no longer wanted to be seen as property, or as objects, but rather as active participants and as full humans.

While educators are often seen as political objects, Black male educators deal with being objectified two times over historically. Black men in a racialized society have been seen as objects, or property, and now are seen as men. Property, or objects, have no political say and are merely acted upon. To not be property, or rather to not be seen as property

enables Black men to be seen as actors. Political actors negotiate which policies will be enacted and how the policies will be enacted, political objects only enact policies and are situated as de-professionalized actors (Ellison, 2018).

The struggle of Marrs to use his ability to read and write to move up the ranks in a White-led army is visited once again upon Black male teachers of mathematics. Black male teachers of mathematics aim to use their ability to do and teach mathematics to others but are often limited by the roles that education policies play in their teaching. Much like Marrs and his teaching corps, Black men believe that teaching and learning mathematics is essential to their roles as first-class citizens in this country (Moses & Cobb, 2002). However, their skills are often relegated to being objects of policy starting with disciplinary policies and followed closely by academic policies.

When Black soldiers joined the Civil War, they entered the war at war with their interests and the interests of Whites within the country. When Douglass asked for them to join the fight, they did so to defend their own freedom and the possibility to have a say in their plight and experience within the country. Marrs believed that by being a soldier and being able to read that it would offer him access to leadership roles and enable him to better serve the Black community. At the same time, Whites in the North were interested in not losing the war and maintaining the Union at any cost. While both interests were served through the work of Black soldiers, racism would never enable Black soldiers to have access to the power that Marrs believed he deserved. This same spirit and tension exist within Black male math teachers as they join the teaching force with hopes of changing the landscape of mathematics education but can end up perpetuating the same system they navigated in hopes of dismantling or disrupting. In their teaching and pedagogical

development, Black male math teachers engage in decision making practices that are formed and shaped by their identities and experiences as mathematics learners.

Teachers As Political Workers

Nieto (2006) in reflecting on her work as a teacher and teacher educator wrote:

> Teaching is inherently political work…Teaching is political in the sense that power and privilege – through decisions about funding, curriculum, class size, testing, tracking, and other matters of policy and practice – exacerbate rather than ease social class and race inequalities. In effect, then, education helps determine the life chances of young people based on their identities and zip codes. (p. 1)

Nieto incorporated the ideas of Freire in explaining how individual teachers, through their everyday decisions form policy and the impacts on the lives of the children and communities they teach within. Within the United States one way that power is enacted upon educators resulting in conflict is by district and state-level leaders making curricular decisions for educators. Education leaders determine (1) whose knowledge is of the most value, (2) who decides whose knowledge is of highest value, (3) who decides how the knowledge is organized and taught and (4) who decides how the knowledge is shared with various social groups (Apple, 2004). Apple (2014) writes that "Increasingly, teaching methods, texts, tests and outcomes are being taken out of the hands of people who must put them into practice" (p. 116). This removal of teachers' input from the process of selecting these materials is in part due to policies and legislation passed by state and national government such as *A Nation at Risk: The Imperative for Educational Reform* (National Commission on Excellence in Education [NCEE], 1983) and *No Child Left Behind* (2002). In direct correlation to the words of Nieto (2006) Apple (2014) writes:

> …when individuals (teachers) cease to plan and control a large portion of their own work, the skills essential to doing these tasks self-reflectively will atrophy and are forgotten. The skills that teachers have built up over decades of hard work — setting relevant curricular goals, establishing content,

> designing lessons and instructional strategies, "community building" in the classroom, individualizing instruction based on intimate knowledge of students' varied cultures, desires, needs and so on — are lost. (pp. 117-118)

Teachers in many states make political decisions when deciding whether to acquiesce to the curriculum and assessments laid out by the state or to push back and advocate for themselves or communities that they serve. Throughout US history, Black teachers have fought for the right to have a say in what was taught and have at times had to teach in fugitivity for the well-being and education of their students (Givens, 2021; Palos, 2011). This change and fight are not a new battle for educators but has been a battle that has taken on new forms due to policies and documents passed starting in the 1960s and with the increased development of neoliberalism in education.

Black Male Educators as Political Actors

There is an ever-growing body of research on Black teachers, but research that centers their experiences and political negotiations is in infancy (Clark et al., 2013). When it comes to research that addresses Black male teachers and their experiences the quantity is even smaller. There is a growing body of research regarding the broader experiences of Black teachers of mathematics (Foster, 1997; Lynn, 2002), but there is not much research on the intersectional analysis of Black men who teach mathematics and how their experiences may differ from teachers who do not identify as Black or male. The small number of studies could be due to the continued small number of Black male teachers of mathematics.

Studies have analyzed and found Black male teaching practices center culturally relevant teaching practices (Lynn, 2006), their experiences and interactions with elder Black male teachers (Hayes, 2014), and their experiences as Black boys and adolescents (Lynn, 2006). Black male teachers experience in engaging in culturally responsive teaching

practices serve as a political act in choosing to teach and assess in ways that build Black students' understanding of the connection between school and cultural knowledge (Tate, 1995a). Teacher lesson planning is political as they decide what content to value, teach, and assess (Sultana, 1997). Their lesson planning reveals their pedagogical beliefs which are rooted in their prior experiences as learners and teachers (Baecher et al., 2014).

Beyond Black male teachers' pedagogical practices, Bristol and Mentor (2018) analyzed the role that Black male educators play in enforcing or pushing back against the disciplinary policies of schools in the United States, particularly with other Black male bodies. Black men are often seen as disciplinarians first and as teachers second (Brockenbrough, 2012) and often seek out ways to subvert the system while maintaining their position within it (Lynn, 2006). Black male educators must decide how to negotiate these policies, such as those regarding discipline, through daily deciding between "sucking it up, compromising or yielding" (Stinson, 2013, p. 74). Their political positions can cost them their ability to maintain their place within learning spaces as activists, advocates, or allies.

Much of the analysis about Black male teachers as political actors in schools has centered on their navigation of disciplinary policies or their broader negotiation of curriculum (Givens, 2021). Researchers have analyzed how Black men are positioned and valued in schools for their ability to serve as surrogate fathers (Brockenbrough, 2012) or patriarchal disciplinarians (Brockenbrough, 2015), however, there is little scholarship regarding their navigation of academic policies in mathematics instruction. There are studies on the transformative resistance of Black male educators regarding the discipline gap and even the roles they play socially and culturally, but little on their work navigating

the achievement gap and the policies and practices that perpetuate and maintain it (Nasir et al., 2013). The investigation into their navigation of education policies, in mathematics spaces, welcomes in a new lens into their experiences particularly into their experiences rooted in their academic knowledge.

Siddle-Walker (2018) wrote about the political work of educators and focused on the political work of Dr. Horace Tate who fought alongside classroom teachers for racial justice within the classroom. Givens (2021) wrote about the fugitive practices of Black educators throughout the United States and how they used various curricular strategies and materials to subvert curriculum that aimed to erase Black contributions and achievements. These examples look at Black educators' political stances broadly and across curricular spaces, however, not much has been written about Black educators negotiating STEM education in the United States. We are aware of stories of Black students negotiating systems throughout United States history to achieve success or access to STEM spaces, but little is written regarding Black mathematics teachers. Zelbo (2022) wrote a historical analysis of Black mathematics educator Edgar J. Edmunds and about his journey to become a mathematics teacher. She touches broadly on his experiences teaching mathematics in New Orleans during Reconstruction in the United States. This historical case analysis is the closest document I can find that sought to explore the experiences of Black men negotiating education policy in their mathematics classrooms.

Achievement Gap

In 1983, the US Secretary of Education, T. H. Bell, organized the National Commission on Excellence in Education to produce a report on the state of education within the United States. The Commission published the scathing report entitled A Nation

at Risk. The report stated, “Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world” (p. 13). The report listed recommendations about what should be done for the United States to become a leader once again in many of the fields that it believed that it once had “unchallenged preeminence” within. The report called for changes in classroom practices, evaluation systems in place for teachers, higher expectations for teachers, the restructuring of the school day, and a renewed focus on STEM asking high school students to take 3-4 years of mathematics and science courses prior to graduating. Another powerful aspect of this report was its call for the assessment of student proficiency of the newly developed standards laid out by education leaders. One of the challenges of this report, as seen in Regan’s talk, is that education is a state level issue protected within state constitutions, but not the federal constitution. Another challenge around this issue was the fact that this report came about 30 years after the Brown v. Board (1954) legislation by the Supreme Court and many states had not really begun desegregation efforts until the 1970s. The country had not dealt with the debts owed to the formerly enslaved, non-European immigrants or those with disabilities. Yet, despite this fact the country aimed to develop a system that pushed on towards excellence as defined by those in power to sustain systems, practices, and institutions that perpetuated their worldview. Much of this world view was about regaining a lead in STEM fields as technological advancements were seen as the jobs of industry in the future. The efforts of A Nation at Risk laid the foundation for the No Child Left Behind (NCLB, 2002) legislation which brought new measures of accountability that were placed upon students and teachers who were now, and still are, expected to reach their adequate yearly progress

or risk loss of jobs or state takeovers. NCLB brought in new legislation that required states to have future educators take assessments to become highly qualified educators, which inequitably impacted the population of teachers of color, particularly Black teachers whose numbers were still recovering from the Brown v. Board ruling (Tillman, 2004). At the same time, NCLB opened opportunities for alternative certification programs such as Teach for America to deal with gaps left behind because of the new requirements for educators and para-educators.

Teachers had varied responses to NCLB and many worried about the accountability testing and noticed a shift that focused on "bubble kids" and "shrinking of the curriculum" (Murnane & Papay, 2010). These responses among others led to what became coined as the "achievement gap" which became a view adopted by many to take on a deficit-based view of poor children and children of color based on their standardized test scores. Ladson-Billings (2006) attested to how the achievement gap negates the narrative of the four debts owed to Black people within the country, those debts are: (1) historical, (2) economic, (3) sociopolitical, and (4) moral. Gutiérrez (2008) notes that there are dangerous effects of the "gap gazing fetish" and that "achievement gap studies in mathematics education offer little more than a static picture of inequities in schools" (p. 358). Gutiérrez (2008) writes that an achievement gap lens:

1. Perpetuates the myth of greater between-group variation.
2. Accepts a static notion of student identity (as quantifiable in terms of race, class, gender, language, etc.) and ignores multiple identities and agencies of students.
3. Sends an unintended message that marginalized students are not worth studying in their own right—that a comparison group is necessary.
4. Places groups in opposition to each other; each one's gain is the other's loss, potentially fueling insecurities among White and middle- or upper-income families when the gap narrows.

5. (Like the term urban education) serves as a safe proxy for discussing kinds of students without naming them. (p. 359)

The aftermath of A Nation at Risk and NCLB impacted student achievement and has made the focus of marginalized students their inability to achieve at the same rate as their peers. This has played and continues to play a role in mathematics education as students who are identified by their status within marginalized groups receive a mathematics education that is watered down and focused on test preparation to close the achievement gap (Martin & Larnell, 2013).

Mathematics Teachers as Political Actors

Gutiérrez (2013a) wrote, "…many college students choose to major in the discipline (mathematics) because they see it as black and white, involving one right answer, and giving them a sense of satisfaction at efficiently arriving at that answer" (p. 9). Gutiérrez discusses how "much of the West and the colonized world, mathematical proficiency is used as a proxy for intelligence" (p. 10). Much of this definition is tied up to the conception or idea that mathematics is objective and is not influenced or impacted by outside factors. This is a political stance because it states that there is some objective truth and therefore that form of intelligence should be valued over other forms of intelligence across various cultural groups. Gutiérrez writes that "…by virtue mathematics is political, all mathematics teaching is political" (p. 11). This argument is rooted within the fact that mathematics teachers are identity workers and the way in which they teach mathematics impacts and forms the identities of the students that they teach (Greer et al., 2009). Therefore, the curriculum selected and taught can form students' beliefs about themselves and their mathematical identities (Tyler et al., 2020). Hancock and Pass (2020) write that curriculum has the power to "shape intellectual and academic identities as well as validate

knowledge, nurture images, promote cultures and reshape worldviews" (p. 121). It can therefore be concluded that curriculum serves as the gatekeeper and teachers of mathematics work as mathematical Heimdall's, watchman of the Gods, determining who gets access to the gate. Many teachers choose to ignore the political nature of the curriculum and their teaching, believing that their teaching of mathematics is objective and has no impact on student identity (Apple, 2013). To believe in this objective nature of mathematics education encourages teachers to compartmentalize education into its own space that is not impacted by the social and political happenings of the day but is solely contained within the cognitive process of learning. Those who pushback on this belief and refuse to just "shut up and teach", encounter the connected and political nature of mathematics education and often find themselves positioned on the outside or as troublemakers or insubordinate as they engage in what Gutiérrez (2013a) calls subversive mathematics teaching (p. 11). This subversive mathematics teaching and research:

> Creates a counter-narrative to the achievement gap discourse; questions the forms of mathematics presented in school; highlights the humanity and uncertainty of mathematics; positions students as authors of mathematics; recognizes that not all students aspire to (or should) become research mathematicians or scientists. (Gutiérrez, 2016)

Gutiérrez (2013a) argued that mathematics teachers need to develop a political knowledge that "maintains solidarity with and commitment to their students" (p. 11). She wrote that political knowledge involves:

> …understanding how oppression in schooling operates not only at the individual level but also at the systemic level; deconstructing the deficit discourses about historically underserved and/or marginalized students' negotiating the world of high stakes testing and standardization; connecting and explaining one's discipline to community members and district officials; and buffering oneself, reinventing, or subverting the system in order to advocate for one's students…mathematics teacher must be able to do more than just construct good lesson plans that are inquiry based or be prepared to develop meaningful relationships with students. They must be

> able to deconstruct narrative being written about education in general and about Black, Latin, American Indian and low-income youth. (pp. 11-12)

Many school districts are fine with teachers who show up to teach good lessons, give students ready-made assessments and go home. Mathematics teachers who engage with research and beliefs about their students both inside and outside of the classroom are those who engage in subversive practices. One aspect that teachers can push back on regarding deconstructing narrative is analyzing the frameworks presented by those in power regarding mathematical proficiency. Larnell (2019) theorized that proficiency can be seen as property and the property of proficiency enables students access to certain careers and advanced coursework, often connected to the practice of tracking. The work of proficiency and testing is connected to NCLB legislation that mandated higher accountability for teachers and students, measured typically through schools AYP (Annual Yearly Progress) scores. These assessments and ideas around proficiency not only impacted students of color and poor students who were being assessed on the knowledge deemed valuable to those in power, but also to students with disabilities. Waitoller and King-Thorius (2016) write that "Assessments can be pedagogical tools of exclusion, as they privilege and teach the value of certain knowledge systems, abilities, behaviors, and skills over others; they pinpoint some students' deficits and others' smartness" (p. 383). In this sense, assessments and proficiency are political in nature as they define and form the identities and life possibilities of individuals. These assessments and ideas are rooted in anti-Blackness and ableism as the assumption is that proficiency is achieved by conforming to the identities of White and able-bodied bodies (Davis & Martin, 2008), so how do Black male teachers negotiate both the political nature of assessments and the racialized history of assessments?

Towards an Equitable Mathematics Education

Throughout the history of the United States, the question has consistently been raised as to what is the purpose of a mathematics education or what should one be able to do with their mathematics knowledge? In previous sections, I noted how one of the roles or purposes of mathematics education functions is as a tool to establish racial or intelligence hierarchies (Martin, 2013) in objective ways. As the United States has continued to be in existence so has the need and purpose of mathematics education. Much legislation and historical happenings have caused shifts in mathematics education such as *Brown v. Board* (1954), A Nation at Risk, and NCLB. Post-*Brown v. Board* (1954) and into the age of common core the United States has been impacted and formed by neoliberalism and the privatization of education starting with public schools. The achievement gap partnered with capitalism has desegregated, integrated, and resegregated schools based on test scores. Ikpa (2003) found that during the 1990s many schools began to desegregate public schools using achievement gap data and rhetoric. The resegregation and desegregation efforts of school districts had led to negative impacts on the mathematical identities and agencies of students of color as they are often left behind at school who focus on a form of mathematics teaching that is void of culture and identity work. The usage of state assessments alongside racist and ableist definitions of proficiency enabled resegregation through de facto segregation. De facto segregation differs from de jure segregation in that de jure segregation "consists of overt efforts to keep races separate, such as maintaining different school systems for different races" (Weiler & Walker, 2009, p. 346). De facto segregation "is the result of natural choices" (p. 346). While this form of segregation was first rooted in housing patterns schools can now use test scores as a form

of de facto segregation as they operate within the notion that standardized tests are objective and do not see race, class, or ability. Neoliberalism builds on this by using schools as spaces that serve the country's economic needs. Liston (1988) wrote:

> Schools produce minimally skilled workers for wage labor, and these educational institutions educate workers to an ideology of compliance…Basically, the premise is that schools are necessary elements in the reproduction of a capitalist economy. (p. 16)

Watkins (2001) in his text *The White Architects of Black Education* add to this critique that:

> …accommodationist education was politically constructed. It taught the cultural values of the ruling order. It aimed to shape an ideological outlook for an entire people. It taught conformity, obedience, sobriety, piety, and the values of enterprise…The curriculum was thus geared to social engineering as much as anything else. (p. 182)

Both authors believe the purposes of education in the United States throughout history is the maintenance of the social order and economic needs of the country. Morales-Doyle and Gutstein (2019) found that STEM schools within Chicago Public Schools developed STEM academies that served the needs of providing Black and Brown students with an education that gave them access to a "racialized labor force". They found that the tracking systems in Chicago Public Schools often led Black students into certain career fields by tracking the students and denying them access to courses that enabled them more opportunities and options. It should be noted that the authors were not speaking of these careers through a deficit-based view but were critiquing the limited access Black and Brown students had to other career options if they follow those paths. In response to these STEM schools that served as farming grounds for hi-tech companies, teachers, students, community members, and families organized a hunger-strike to develop a high school that served the needs and purposes of their community. The resulting school's focus was to

"…use mathematics and science to create systems of transportation, food production, health care, and development that are more just and sustainable…" (p. 539). This work documented in Chicago Public Schools is not isolated in teachers' actions regarding mathematics education and working as political actors for social change.

In California, educators worked alongside families, community members, and researchers to de-track a high school mathematics curriculum to provide more equitable and comprehensive mathematics learning opportunities for all students (Boaler & Staples, 2008; Cabana et al., 2014). This work was recently pushed back on by mathematicians in California and throughout the United States who believed that de-tracking dumbs down the curriculum and limits the potential of high-achieving students. Across the country university researchers, teacher researchers, and educators are working side by side to develop equitable, culturally responsive, and affirming mathematics curricula (Gholson & Robinson, 2019; Heyd-Metzuyanim et al., 2021; Moses et al., 1989; Ortiz & Jessup, 2022) that also does the identity work that Gutierrez wrote about within her articles.

López Pereyra (2020) wrote, "Teaching must be embodied; It must be filled with our emotions, desires, and affections…Teaching is a space of resistance, empowerment, and transgression which can transform our society" (p. 62). This is true if teachers refuse to simply shut up, teach, and instead decide to engage in subversive practices for the liberation of ourselves and the communities that we teach within. Kumashiro (2000) reminds teachers, however, that "we are not trying to move to a better place; but rather we are just trying to move" (p. 46).

Mathematics Identity and Agency

Mathematics identity is defined as "the dispositions and deeply held beliefs that students develop about their ability to participate and perform effectively in mathematical contexts and to use mathematics in powerful ways across the contexts of their lives" (Aguirre et al., 2013, p. 14). Individuals' mathematical identities are formed and sustained by the stories that they are told about themselves and the stories that they choose to believe about themselves. Martin (2018) wrote:

> A mathematics identity encompasses a person's self-understanding and how they are seen by others in the context of doing mathematics. Therefore, a mathematics identity is expressed in narrative form as a negotiated self, is always under construction, and results from the negotiation of our own assertions and the external ascriptions of others. (p. 150)

This negotiated self was seen in the previous section as Black males as students negotiated what it meant, and means, to be a successful Black male doer of mathematics. Martin (2018) added:

> ...mathematics is only one aspect of a person's life, mathematics identities do not develop in isolation from other identities that people construct (e.g., racial, cultural, ethnic, gender, occupational, academic). For some individuals, these multiple identities may unfold in ways that make them incongruous and can lead to serious personal tensions...For others, there may be explicit attempts to merge these identities so that they exist in unison. (p. 151)

Martin then alludes to the fact that if you devalue one aspect of one person's identity then you could challenge or devalue another aspect of their identity. If you devalue a Black boy's racial identity, you may devalue or challenge their mathematics identity. However, if you value a Black boy's masculinity (gender identity) you may add value to their mathematical identity. The narratives that we share and believe about Black boys impacts their complex identities, and particularly their mathematics identities. The same goes on to impact the identities of Black male mathematics teachers when aspects of their complex

identities are devalued. One storyteller that impacts the identities of Black male students and math teachers are standardized assessments, the stories that standardized assessments tell about Black students and teachers offer deficit-based readings of them.

Davis and Martin (2008) in their analysis of Tate's work wrote that he argued that "standardized tests were designed to prepare poor African American students to replicate their parents in the division of labor by providing them with instruction in mathematics suitable for this purpose" (p. 18). This coincides with the work and understanding of the analysis laid out by Stinson and Berry in their conversations with Black boys who had successfully navigated and who also mostly came from middle- and upper-class families. The education they were provided through their school was to prepare them to participate in a certain division of labor, one in which teaching currently does not exist--some would argue historically.

Larnell (2019) analyzed the impact these assessments have on Black collegiate students in non-credit bearing and remedial (NCBR) mathematics courses in their undergraduate years. In analyzing proficiency as defined and measured by high-stakes testing, Common Core and National Council of Teachers of Mathematics (NCTM), Larnell identifies mathematical proficiency as property and to be seen as proficient in mathematics gives students access to advanced courses and even respected careers paths. Those who do not receive access to this property are typically relegated to a lifetime of denial to systems and resources and are left to cope with their lack of ability to navigate these systems and adopt a deficit-based mathematics identity. Mathematical proficiency measures what Gutstein (2012) names classical mathematical knowledge, which is the knowledge that students will need to pass through all gatekeeping tests. Gutstein breaks down mathematics

knowledge into three categories: (1) classical, (2) community, and (3) critical. *Classical mathematics knowledge* is most often taught in schools as it coincides with the power structures and is easiest to assess. Community mathematics knowledge is:

> …knowledge of farming practices, social relations, production, community life in all its complexity, and of perspectives and interpretations of the world. It is knowledge that resides in individuals who live in a particular community context and that teachers may not understand unless they share the culture and experiences of the students. (Gutstein, 2012, p. 201)

Community knowledge addresses the point brought to the light by Gutiérrez regarding students having access to knowledge to make sense of their own worlds. Community knowledge invites students to bring in their funds of knowledge (Moll & Gonzalez, 2004) into the mathematics classroom to seek to solve problems that may have arisen in their worlds using mathematics. *Critical knowledge* is "the knowledge of how to read the world with mathematics…to understand their sociopolitical context" (Gutstein, 2012, pp. 202-203). Critical knowledge is seen in mathematics tasks or activities that encourage students to interrogate inequities in their lived experiences such as factors that may impact their mortgage rates or even analyzing the geometric means of gerrymandering in local elections. Each of these knowledges are interrelated and are needed to navigate a democratic society, but classical knowledge is the knowledge of hegemonic power and therefore is most often tested and assessed to enable mathematics to function as a gatekeeper or source of exclusion instead of as a gateway and source of inclusion. To receive access to systems, there are many individuals who may not be able to navigate or understand critical or communal applications of mathematics but can move through the empire with ease with their classical knowledge. For Black students, particularly Black males, this navigation is quite complex because if one is to navigate and master classical knowledge and gain access to certain classes and spaces, the next challenge is figuring out

how to navigate those spaces alone. Further how to navigate these spaces and still find value in your other knowledge and identities when they are not seen as valid mathematical practices.

McGee and Martin (2011) analyzed the successful navigation of a Black boy from his childhood to his PhD in mathematics and speak to him about his experiences as a mathematics learner and explore what skills he needed to navigate mathematics spaces. The individual, Rob, on one hand states that he was able to navigate "White spaces" differently because his father was White. However, since he was phenotypically Black, he recalled spending much of his time developing a "proving-them-wrong agency" (Moore et al., 2003) which led him to push himself harder in work against the stereotypes and prove his White classmates and teachers wrong. To deal with the stereotypes and negative experiences he had in classes, he developed a sense of humor to deflect the pain of navigating mathematics spaces as a youth. Rob's narrative speaks to the *racialized identities* (Nasir, 2011) of Black youth within the US as they learn mathematics. Nasir wrote "…students can master the practices of the traditional mathematics classroom and learn math competently without taking on the identity themselves as mathematical thinkers or 'math people'" (p. 19). Rob's counter story shows that some students can navigate these racialized experiences and still hold onto their identity as "math people," some others do not develop these identities and adopt deficit views of themselves and their mathematics agency. These experiences are not limited to the identities of Black boys and their mathematics identities but extend also to Black men who teach mathematics as well as Black men who work in well-respected STEM fields and careers.

Black Male Mathematics Teacher Identity

Mathematics teacher identity is “an identity that consists of knowledge and lived experiences, interweaving to inform teaching views, dispositions and practices to help children learn mathematics” (Aguirre et al., 2013, p. 27). Teachers' views of what knowledge is necessary to help children learn mathematics, however, are rooted in the teacher's definition of mathematics. Gutiérrez et al. (2023) found that teachers can perpetuate harmful narratives and pedagogical stances about mathematics because of their own experiences with mathematics alongside the refusal of space for educators to unpack narratives that they have been told and believed regarding mathematics. In their work, they found that when teachers can unpack and speak into their desired teaching approaches, they can name the structures and actors that shape their teaching identity and practices. When the practices and policies are analyzed or unpacked teachers can expound upon their negotiation between their desired pedagogy and their practiced pedagogy.

Black males’ math teacher identities are inextricably bound to the identities of their students, therefore their student performance on standardized assessments impacts their identity as an educator. This bind to their students often comes because after the passage of NCLB many teachers' ratings or evaluations are impacted by their students’ performance on standardized assessments. Teachers are rated, labeled, and compensated based on their students' performance on these assessments and the standardized assessments often benefit those who have some sort of privilege via access to resources. McGee and Martin (2011) in their conversation with Rob revealed that many of the students who he taught at the time of the interview did not identify as Black, yet Rob desired to teach Black student mathematics. This identity crisis or paradox presents itself to Black male educators of

mathematics, like Rob, frequently with deciding between being labelled as an ineffective teacher because of the lack of resources that are available to the students who you serve or to teach in an area or school with resources while trying to invite Black students and students of other marginalized groups to come to the school. This problem is remarkably like that of Brown v. Board where Black families wanted access to resources and quality education within their communities and schools but instead were offered buses and lost many Black teachers and administrators.

Tate (1995b) wrote about the "national toll road" that was developed in the form of a national mathematics assessment which determined student access to higher level mathematics and structuring mathematics education. Many Black male mathematics teachers have negotiated these toll roads as students and now function as guides for students who navigate the same terrain. When Black educators enter mathematics classrooms, they may have either robust or fragile mathematics identities which intersect with their racial and mathematics teacher identities. McGee (2015) defined those with fragile mathematics identities as those who defend themselves by demonstrating mathematics achievement (pp. 604-605). In contrast, those with robust mathematics identities define themselves by enjoying and embracing mathematics. While McGee's framework was aimed at Black students and their mathematical identities the same can be found in Black mathematics teachers' identities through their teaching practices.

Racial Mathematics Socialization

Black teachers enter mathematics teaching spaces with their racialized identities (Nasir, 2011). These are the identities that are constructed as Black teachers engage in mathematics spaces that are racially stratified and their responses to this racially stratified

world are shaped by the messages they have received as students, pre-service teachers, and teachers (p. 26). Due to these racialized mathematical experiences many Black math teachers have fragile mathematics teacher identities modeled by their need to demonstrate their success and effectiveness as mathematics educators through their student's performance on assessments. Their desire to do well is to prove their capacity to teach content. Black math teachers' robust mathematics teacher identities focus more on enjoying and exploring mathematics and are focused on internal successes in mathematics. Since identities are fluid and do not develop in isolation, Black math teachers who have strong Black identities or math identities are more likely to have robust teacher identities.

CHAPTER 3 – METHODOLOGY

Qualitative researchers explore and discover subjective meanings constructed by individuals through gathering data about the experiences of individuals often in the form of narratives (Hesse-Biber & Leavy, 2010, pp. 6-7). Qualitative research is concerned with in-depth understanding, usually working with small samples (Hesse-Biber & Leavy, 2010). Qualitative researchers operate with the belief that the truth can be explored and discovered through engaging in conversations or observations with individuals. This study seeks to add to the history of Black educators of mathematics, focusing on the experiences of Black men. The four self-identified Black men within this study reside and teach within large urban cities in the midwestern United States. Bearing witness to their stories and analyzing their experiences at the intersection of their identities and actions contributes to the story of teachers in the United States which includes Black men. Their stories contribute to the collection of narratives that give voice to their experiences as political actors in a society that deems teachers objects of policy (Ellison, 2018; Solórzano & Yosso, 2002). In the analyzation of their interviews and development of counter-narratives I explore the tension and terrain that they navigate daily as they teach mathematics in K-12 classrooms.

Qualitative researchers who look to discover meaning constructed by Black, Indigenous, Teachers of Color have historically engaged in *damage centered research* (Tuck, 2009, 2010). This form of research centers and depicts individuals who have been marginalized as broken (damaged) with the hope of obtaining political or material gains. This has been seen in education research in the work s documenting the damage done to communities by education policies by presenting students, teachers, and communities as harmed by the policies. The presentation of individuals and communities in this way

centers the damage and positions the individuals and communities as objects of policy instead of actors. This work has been done when researchers have studied Black male mathematics teachers, centering how Black male math teachers' experiences may impact their desire to enter the field, focusing on the low number of Black males within the profession or positioning them as individuals who serve as role models and disciplinarians for Black boys.

The present study engaged in a *desire-centered research approach* to center the complexity and tensions Black male math teachers navigate while teaching mathematics. Tuck (2009) explained that this analyzation of the complexity of individuals experiences and identities is important because:

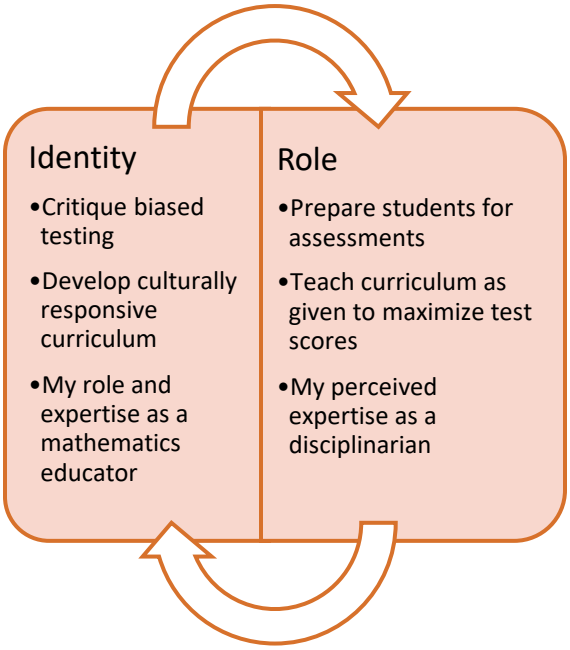
> …it more closely matches the experiences of people who, at different points in a single day, reproduce, resist, are complicit in, rage against, celebrate, throw up hands/fists/towels, and withdraw and participate in uneven social structures…[desire] complicates our understanding of human agency, complicity, and resistance. (p. 420)

Critical race theorists engage in desire centered research as the theoretical framework analyzes the principle of interest convergence to describe and interpret Black male math teachers' experiences teaching mathematics (Solórzano, 1998). To present these narratives, CRT mathematics education researchers use one of three forms of counter storytelling: personal narratives, narratives of others, and composite stories or narratives (Alexander, 2019; Davis, 2018; Jett, 2019). The use of critical race method counter-stories aided in sharing the experiences of Black male math teachers in the rich tradition of storytelling by African American communities (Bell, 1987, 1992, 1997). Counter stories (CS) enabled me to address unheard structured invisibility of Black male math teachers regarding their experiences as they teach mathematics and the tension they experience while teaching. It is important to note that counter-storytelling is not fictional storytelling as the stories and

characters are informed by data rooted in the interviews collected and are contextualized in social situations that are grounded in their real-life experiences as math teachers (Solórzano & Yosso, 2002).

My experience as a Black male math teacher informed my understanding of the importance of addressing the complexity and diversity of the experiences of other Black male math teachers. As a Black teacher, of mathematics, I was frequently aware of the power and tensions present as I taught in mathematics classrooms. As I taught mathematics, I felt the tension between critiquing testing and preparing students for assessments, the tensions between developing a culturally responsive curriculum or teaching the curriculum that could lead to better performance on assessments or even navigating my role and expertise as a mathematics educator compared to my perceived expertise as a disciplinarian. These tensions, decisions, and choices illuminate the work of Black male math teachers as political actors. The tensions model is that as teachers, we are professionals with expert knowledge used in teaching mathematics. This expert knowledge is modeled in our development of purposes and strategies for teaching mathematics, our understanding of the communities we serve, and their expectations of us and our knowledge of the expectations of society.

Figure 1. *Black Male Math Teacher Tensions*



This knowledge and the tensions that my participants and I navigate(d) as a math teacher served as the thematic glasses that I wore, and adjusted, while interviewing my participants and analyzing interview transcripts. These glasses offered a prismatic view into the participants experiences to note how their multiple identities (race, gender, class, spiritual) shaped their experiences and negotiations. I used counter-stories to discuss themes of curriculum, high-stakes testing and racialized experiences that emerged from the data to critically analyze and present the experiential knowledges of Black male mathematics teachers as it relates to the principle of interest convergence. Ikemoto (1997) warned that the danger of only composing CS in response to dominate stories further enables those narratives to be seen as the standard. This study centers the unheard experiences of Black male math teachers in their living, being, and functioning as teachers of mathematics.

As a Black male mathematics educator, when I sought out texts that spoke to my past experiences, I usually found writings about the broader experiences of Black teachers or their negotiation of disciplinary policies, their negotiation during the integration of schools (Foster, 1997) or their development of spaces outside of schools (Moses & Cobb, 2022). Further, I found few texts that spoke to the complexity of teaching mathematics while a Black man with purposes beyond recruiting more Black males to the profession (Davis, 2018; Harris & Davis, 2018; Zelbo, 2022). Few texts acknowledge the complex terrain that Black men negotiate regarding their multiple identities and the intersection of these identities while teaching mathematics. The use of counter storytelling seeks to describe the intersection of Black male educators' identities as they teach mathematics. The study sought to investigate how Black male classroom teachers engage in political decision-making while teaching mathematics.

The experiential knowledge of Black male mathematics teachers is useful when analyzing how race, class, and gender operate in their teaching of mathematics. Understanding their identities and decision-making impact on their mathematics teaching is connected to understanding the permanence of racism and interest convergence in mathematics education. Counter-narratives were used due to the structured invisibility of the experiences and knowledge of Black male math teachers in mathematics education research.

Narratives are how most individuals share their experiences and how teachers often share their professional practical knowledge (Connelly & Clandinin, 1988). Teacher narratives are valid resources that serve as a tool to develop deeper understandings of the journeys of teachers and the fluidity of their teacher identities. Documenting and analyzing

counter-narratives of Black male math teachers serves practicing math teachers and future math teachers in their professional development and acts as a form of psychic preservation (Delgado & Stefancic, 2023). By analyzing the unheard experiences of Black male math teachers we can begin to modify and correct beliefs held about them and their professional identities by "calling attention to neglected evidence" (Delgado & Stefancic, 2023, p. 51). This study centered its analysis on the experiences of Black male mathematics teachers as a way of seeing the complexities they navigate while teaching mathematics.

Phenomenological Design

> *I'm glad I understand that while language is a gift, listening is a responsibility* ~ Nikki Giovanni

The choice to engage in a phenomenological study was selected because Black male math teacher experiences are currently under-researched. A phenomenological design is appropriate as the goal was to explore a phenomenon that does not have much written about it. To gain more information about the phenomenon of interest a phenomenological researcher collects information from knowledgeable participants who are then asked to describe the phenomena and then their responses are analyzed and interpreted (Flowerday, 2000). Within qualitative studies, researchers engage in an interpretive approach trying to make sense of a phenomena in terms of the meanings people bring to them (Creswell, 2016). My purpose in engaging in phenomenological study is to be able to describe and interpret the experiences of Black men while teaching K-12 mathematics. Phenomenologists use various methods to interpret how individuals think about experiences such as observations, in-depth interviews, and analyzing written accounts of them (Hesse-Biber & Leavy, 2010).

This study gathered data through a three-interview series, which involves interviewing each participant three separate times and exploring the interviews for themes. The three-interview series offered the opportunity to explore the participants experiences, to place it in context, and then to explore its meaning. The format allowed for important member checking to ensure that the counternarratives aligned with the participants experiences and their description of those experiences. This study required a fourth interview to further engage in an exploration for meaning.

Autoethnography as a Phenomenological Tool

Autoethnography is a qualitative research methodology that enables the researcher to place themselves at the center of a cultural interaction as they explore the study's impact on themselves. Pitard (2017) engaged in autoethnography using vignettes to reflect and situate herself amidst her participants who she studied as a teacher researching her students. In her analysis and interaction with her students, she aimed to analyze her sense- and meaning-making as she did a phenomenological study. My own study and choice to engage in autoethnography is rooted in my self-identity as a Black male mathematics educator who also negotiates education policy. While I was engaged in this study, I did not enter the space as an objective interviewer because I negotiated similar policies to those of my participants. These shared identities drew me closer to my participants and enabled the interviews to function more as conversations. When I interviewed my participants, I approached their words and meaning seriously as one who is still on the journey.

As I engaged in a phenomenological study and participated within the study, I engaged in what Gruppetta (2004) named an autophenomenography. Autophenomenography addresses the bias of the researcher as a part of the study and

contextualizes the biases and experiences that the researcher brings to the phenomenological study before, during, and after data collection (interviewing). Thomas and Polio (2002) engaged in a similar process in which they began their own study by analyzing their own perspective of the phenomenon, I engaged in a similar practice using conversations with my committee chair and others as I developed my questions and discussed how I arrived at the questions for the study and how I have navigated the phenomenon. This process enabled me to be more succinct in my questioning as I grappled with them personally and aimed to get the same knowledge, reflection, and analysis from my participants. My own experiences have been collected in journals through my years of teaching enabling me to look back at my own shifts and development. As I looked through and analyzed my own biases, I was then able to engage in the study and to note when I might be interpreting or analyzing data through a biased lens.

Creswell (2016) wrote that the bracketing and understanding of your own preconceived ideas is necessary so that the researcher does not impose their own hypotheses onto the experiences of their participants. By responding to my own questions and reflecting on my experiences as an educator, I understood my preconceptions of the phenomenon of interest. This bracketing, however, is not a one-time event because throughout the study the words or experiences of my participants connected with my own (Thomas & Pollio, 2002). The composition of the narratives made it necessary for me to look back at myself and my own bias to make sure not to turn my participants into puppets during the development of counter stories.

Participant Recruitment and Selection

Since August 2015, I have worked as a Black male elementary (K-8) school educator at four different school districts in two different states. I have worked in large urban and smaller suburban school districts as an educator and in my experience have encounter a handful of Black male educators of mathematics. My work and identity as a Black male teacher placed me within communities, contexts, and conversations with other Black male teachers regarding their experiences throughout their careers as classroom teachers.

After receiving IRB approval in December 2023, I sent an email (see Appendix A) to various Black male mathematics teachers who I have known since I began my teaching career. Some of these individuals have worked with me as teaching partners and some have worked with me since I began my undergraduate work in education at the university. The email described the study and my interest in hearing Black male mathematics teachers describe their experiences navigating exclusionary education policies. I used convenience sampling in recruiting and choosing participants. Hesse-Biber and Leavy (2010) note that the usefulness of this sampling strategy is rooted in the researchers need to find participants who (1) are available, (2) have specialized knowledge of the setting, and (3) are willing to serve in that role (p. 56). As a practicing elementary school mathematics educator, it is challenging to engage in research and to find participants because of the demands of the profession and the lack of convenience of travel and time. The same is true for my participants, educators, whose availability to be a part of a study was also limited.

Participant Overview

Four self-identified Black male mathematics teachers participated in the study, their experience working as mathematics educators ranged from nine to twenty years. All but one of the four participants were currently teaching in public neighborhood schools within a large urban city located in the Midwest of the United States, the other participant worked at a private school within an urban city in the Midwest. Two of the participants entered teaching through an alternative licensure program, and the other two have bachelor's degrees in elementary education, concentrating in teaching middle school mathematics. The participants who entered teaching through an alternative certification program have bachelor's degrees that required the application of mathematics knowledge (mechanical engineering and operations management and information systems). Half of the participants work within schools that serve a Black population and half of the participants work within schools that serve a more diverse student population where Black students do not make up most of the students. See Table 1 for overview.

Table 1. *Participant Demographic Overview*

Participant	Years of Experience	School Type	Degree Type	Student Population
Mr. Reeves	25	Private	BS- Mechanical Engineering Alternative Certification Program	Black
Mr. Bashir	15	Public	BA- Operations Management and Information Systems Alternative Certification Program	Black
Mr. Wayne	10	Public	BA – Urban Elementary Education, Concentration in Middle School Mathematics	Multiethnic
Mr. Lamar	10	Public	BA – Urban Elementary Education, Concentration in Middle School Mathematics	Multiethnic

Data Collection

During January – June 2024, I conducted three 45–60-minute interviews with each of my participants via Zoom. Before and after each interview, I recorded memos to capture my thoughts, perceptions and themes that arose from the interviews. After the conclusion

of each interview, I read and analyzed transcripts of the interviews with participants looking for critical moments aligned with (1) the permanence of racism in mathematics teaching and learning, (2) race as a social construct in mathematics education, or (3) interest convergence as a Black male math teacher. The process of analyzing the transcripts and composing memos aided me in the development of counter-narratives of the Black male math teachers by drawing attention to aspects that each participant grappled with in a unique and profound fashion. In re-reading transcripts, I could look at how participants reflected on and spoke about their navigation of their classrooms and teaching mathematics as Black men. See Figure 2 for a summary of the plan for each semi-structured interview.

Figure 2. *Semi-Structured Interviews*

Prior to the initial interview, I answered the study questions using my own experiences. I also answered participant questions about the study, obtained their consent, and shared the first set of questions to be asked (See Appendix B). I grappled with and studied the questions that I proposed to verify that the responses to the questions merited responses that I could excavate for lively bones. A challenge of the question composing process was in developing questions that did not lead the participants to offer answers hat aligned to my own beliefs. Concurrently, I had to make sure that while I did not offer

leading questions that they did guide the thoughts of my participants to provide rich answers—or thick description (Denzin, 1989; Geertz, 1973; Ponterotto, 2006).

Upon completing the composition of my questions for the phenomenological interviews I reached out to my participants to set up times when we could meet virtually. The process of meeting virtually was most convenient for myself and my participants, who, at the time of the study, identified as teachers. Interviews took place near the end of the school day and on weekends when teachers had time that they were willing and able to offer. I interviewed all participants using the life story approach modified from Seidman (2019). The background interviews (Interview One) with some participants were not as rich as others. One probable explanation for this could be that one of the participants completed their undergraduate degree in teaching along with me (age). The relationship with this participant extended beyond the context of the classroom enabling relaxed conversations that often seemed more like catching up than interviewing. Entering the profession and professional program with the participant enabled for us to have a deeper conversation regarding how we might have shifted in our beliefs and pedagogical stances as we negotiated 10 years of teaching math as Black men. Another explanation could be that through giving my participants the questions before some came to the interview with premeditated thoughts and responses that they were hoping to share which made those interviews function more as interviews and less as conversations. A final explanation could be the timing of the interviews interrupted our flow as some occurred in the evening and others occurred close to midnight because of time differences between participants and myself.

The interviews took place on Zoom where I was mostly at home and the participants were either at home or in their classroom while being interviewed. For most of the participants, the interviews occurred immediately after school or following after-school activities. After reviewing the first round of interviews, I analyzed the transcripts provided by Zoom and found they were minor semantic errors and relistened to the interviews and the recordings to clean up the transcripts. During the interviews, I jotted quick notes or memos on points that I wanted to touch on again within the same or future interviews.

While each phenomenological interview had pre-determined questions, follow-up questions were embedded into future interviews based on previous interviews and analysis of transcripts. For example, in an earlier interview the theme of bias in standardized assessments was brought up by participants so in later interviews I asked other participants about their forms or definitions of curricular subversion or mathematical identity work with self and/or students. This enabled me, during the interview, to see if the issue or concern was one that stretched across the experiences of all Black men or only the individual participant. Other times I had follow-up questions that provided me with more background knowledge to inform why certain decisions were made by the teacher and help me in developing each character. The characterization and understanding of some of their decisions were rooted in what had drawn them to teaching mathematics. The constant member-checking during interviews and through the development of counter-narratives was rooted in the importance of the methodology in not making fictional stories, but stories based upon the data (interviews).

The Interviews

First Interview (Focused Life History)

In the first interview I asked participants to recollect and expound upon what drew them to teaching and their relationship to mathematics. This question enabled me to set a framework to refer to when analyzing their interview data and to understand how their previous experiences influenced their navigation of teaching mathematics as Black men. Participants shared their backgrounds, and some shared what caused them to leave other professions to become full-time teachers of mathematics. Participants were asked what their purpose for teaching mathematics and their methods of instruction were to lay a framework to connect their experiences as learners of mathematics to their experiences as teachers of mathematics. Participants shared connections outside of school contexts to how community members and family influenced their decision to become teachers or even how leaving another STEM profession guided them into teaching mathematics. This is one of the purposes of the life history interview--to enable the researcher to grow in understanding of who the participants are, who they have been, and what experiences have shaped their professional identities as mathematics teachers. The commentary helped to put their choice to become a teacher in context to further understand their navigation of the profession based upon the genesis of their exodus. The interviews spoke into their exodus (exit) from one STEM profession into another (teaching).

At the conclusion of the first interview, I went back through each transcript to identify key moments that could be of interest to focus on as we engaged in later interviews. The key moments may have been aligned with tenets of CRT or comments that interested me as a researcher. I believed that their arrival and navigation of mathematics as students

and even as pre-service and early career teachers of mathematics gave insight into what they considered a successful mathematics teacher identity. The life history interview offered a foundation for how each math teacher became the teacher that they were and moments that led them to adapt or transform their pedagogical stances. In this interview participants spoke a bit about their path to the classroom which varied since two of the participants had careers outside of education prior to becoming math teachers. Listening to their journey and the individuals who influenced their love of mathematics and their passion for teaching enabled me to be able to offer loving critiques of their decisions and definitions of high-quality mathematics teaching and learning. It remained imperative for me to offer a loving critique because as a Black male math teacher I know the challenges of the profession and how we are at times called to do things that may conflict with our beliefs or values. The loving critique offers us grace to say this is where we currently are for a myriad of reasons, but we do not have to stay here. The first interview enabled me to see how their identities as mathematics teachers developed alongside their other identities, their racial identity in particular. This was seen by their choices in where they taught and who they believed their knowledge and skill set was developed most to address when it came to teaching mathematics.

Within this initial interview I asked questions to further understand their conception of their roles and responsibilities as educators. Their responses would be used to ascertain if their explanations were rooted in narratives that could be analyzed further. Further interviews spoke to how they connected their purposes of teaching mathematics to racial uplift and providing Black students access to certain mathematical worlds. These purposes of racial uplift drew unique connections to interest convergence as the educators in

following interviews spoke about the racism and exclusionary nature of the mathematics they taught while knowing that students needed the knowledge to get access to STEM careers and improved economic mobility.

Second Interview (Details of Lived Experience)

In the second interview I concentrated on each participants reconstruction of their lived experiences teaching mathematics while navigating policies and political actors in their mathematics teaching. Before and during the interviews I did not define what, I meant by "politics or policies" and instead let the participants define policies and politics through their responses. I purposefully did not offer this to avoid swaying the participants to respond and analyze politics and policies through my definitions, perceptions, and personal experiences as a math teacher. The participants connected their ideas about what it means to be a successful teacher of mathematics, curriculum, or assessment practices to their political stances. Participants were asked to describe not only how they negotiated policies but also their emotions or tensions as they carried out, pushed back against, or subverted policies and how these actions might have been incorporated in their identities as Black male mathematics teachers. Many of their political actions were rooted in their beliefs regarding standardized assessments and student performance on assessments. Participants were compelled to reflect on how the student performance on assessments shaped their identities as teachers and as Black men.

This interview was important because it enabled critical moments of teaching mathematics as Black men to rise to the top of the interview. This interview delved deeply into how their Blackness or maleness influenced their experiences in teaching mathematics. Participants spoke about their perceived roles and began to make connections between their

navigation of places alongside students of color, Black students in particular. This interview caused changes in my semi-structured interview process as I noted many of the questions in the second and third interview were seeking to address the same phenomena, but adequate time was not afforded to enable the participants to reflect on the meaning of their words. This realization cultivated a need to really sit with their transcripts, audio/visual recordings and to listen to what they were saying and what meaning could be extracted for them to reflect upon. This process I was engaging with is what Seidman (2019) calls the participant's inner voice. The inner voice is that voice that is hidden behind the words and phrases that the participant is using and as a researcher, I had to re-read transcripts and listen to their voices to listen between the words. This reading, transcribing, and making of memos enabled me to offer participants the ability to reflect on the meaning of their words in the final interview—further member-checking.

During this interview two participants spoke about how their political role within the teaching of mathematics often felt relegated to discipline rather than having students receive math knowledge. Participants spoke about how they knew that the mathematics taught and assessed were not of equal value to every student but despite this they still taught and expected them to learn the material. The fact that some participants taught in predominantly Black schools and others taught in diverse schools led to unique conceptions of their reading of students and their responsibility to them and their communities. These moments and words served as a foundation for the final interview when participants were asked to reflect more broadly on the tensions they felt as Black educators. A particular moment of interest was in analyzing the participants willingness or history engaging in

subversive practices while teaching mathematics or in their definition or understanding of the type of saviors they were called or expected to be as Black male mathematics teachers.

Interview Three (Reflection on Meaning)

In the third and final interview participants were then asked to reflect on the meaning of inner voices and how it connects to their beliefs about mathematics teaching and what brought them to the profession. Participants in this interview were asked to connect their beliefs to previous statements they made in other interviews. Looking through the transcripts I pulled quotes and themes from previous interviews regarding (1) racism in mathematics education, (2) social construction of race, or (3) interest convergence to have the participants reflect on their words and ideas and negotiations of various policies and pedagogical decisions. Participants were invited to analyze how words they said may not have coincided with words they had said previously or even addressed the tensions between their beliefs as they are uniquely positioned as teachers. In these final interviews, I prioritized that I would listen more than I spoke so that I could bear witness to the participants grappling with their own thoughts. It was during this interview that I also presented participants with the skeletons of their counter-narratives to make sure they agreed with the words and phrases I was pulling from interviews to compose their counter-narrative. I shared a general synopsis of their counter-narrative and explain to the individual how their words were being used to shape characters and interactions and how I wanted the words of their character to be true to the transcripts.

For example, in previous interviews participants may have spoken about the role of race or racism in mathematics assessments (AP exams, state standardized assessments) or curriculum and in the final interview I asked them how they negotiated race in those

instances as Black male teachers. In this final interview I wanted them to speak about their unique experiences and actions of navigating the racial terrain of mathematics education in the United States and to ponder how it sits or splits them as they teach. This final interview gave insight to how the characters in the CS would resolve or not resolve scenarios based on the words of the actual participants. In crafting counter stories, it was important that I did not develop characters in a way that was not true to the words and ideas of the participants.

Data Analysis

After completing the interviews for all participants, I coded for themes emerging from interviews regarding participants' experiences teaching mathematics that related to tenets of CRT. Reading and rereading numerous times through the transcripts with and without the audio accompaniment afforded me the ability to sit with the words of the participants and to listen between the lines. Delgado and Stefancic (2021) highlighted the need to discern critical moments that can enable a scholar to recognize that moment and do something about their observation. Counter-narratives in this narrative were used to present teachers views and experiences live from the underground (Abu-Jamal, 1995). Breathing, visceral, powerful narratives, like the work and writings of Mumia Abu-Jamal, that offered insight into his lived experience while he was held as a political prisoner in the United States. The current interviews and formatting were aimed to be positioned similarly to Kendrick Lamar's et al. (2015) song "Mortal Man" on his album *To Pimp a Butterfly* in which he takes Tupac interviews and structures them as a present-day conversation with Tupac. As a participant within the study, I needed to center myself authentically and did

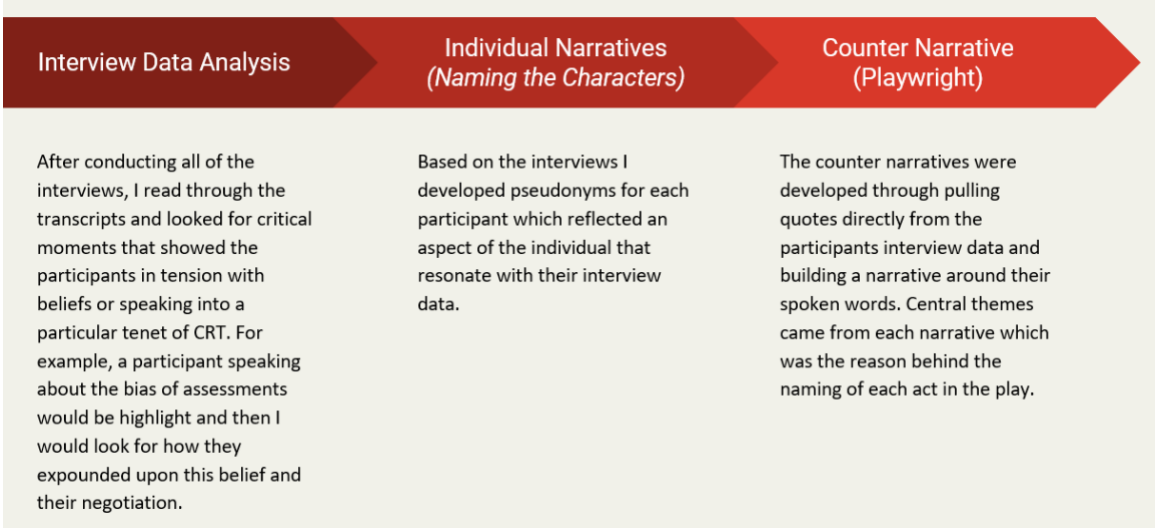
not want to tamper too much with the transcripts which made the layout of plays conducive to that purpose.

The tools used to better discern the critical moments were interest convergence, counter storytelling, and intersectionality. Three major themes that emerged from the data were: racial mathematics socialization (permanence of racism), proving oneself (racism as a social construct), and teacher effectiveness/evaluations (interest convergence). Racial mathematics socialization emerged as participants spoke about student performance on assessments and how the assessments valued certain forms of mathematical knowledge. When addressing the racial and classed nature of the mathematics knowledge valued on curriculum and assessments, participants often used the term "their" or "them" when speaking about the math knowledge valued through assessment and this was interpreted as a racial reading of the knowledge. That reading and analysis was rooted in my racial identity and understanding of ways of speaking about those in power without specifically naming them. Racism as a social construct, proving oneself, emerged in the data through participants explanation of the hierarchy of mathematical ability and their perceived necessity to work against the achievement gap. One participant mentioned the achievement gap and spoke about how he taught his students as if they were behind until they disproved his perception of them. Other participants did not speak directly about the achievement gap, but it showed in their rhetoric and mathematics teaching reflections and decision making. Finally, interest convergence emerged as participants spoke about the benefits of their student's ability to successfully navigate the race-based practices in teaching mathematics. A particular instance is how one participant spoke about the greatness of two former students attending a renowned STEM university in the United States after

graduating from high school. Each of these themes were pulled out to develop the CS using the tools. After determining the themes, I looked back through the interviews for lines/quotes that best portrayed my participants words and intentions during the interview that surrounded the themes and highlights one of the three tenets of CRT (permanence of racism, race as a social construction, and interest convergence).

In developing the counter-narratives I chose to present the data as a play because I wanted a form of writing that held me true to their words. Many times, when I set out to use the data to write interviews, I found myself using my participants as puppets to relay messages that I wanted to get across in the data. Ladson-Billings (2021) warned of this danger in that many aspiring CRT scholars are frustrated with some experience with power that they have had, and the story ends up serving as a rant or exhibition of one's own struggle instead of the struggle of others or an analysis of systemic inequities. The counter-narratives developed in this study have gone through many revisions through looking back not only at the transcripts regarding the quoted words of the participants but also what their words were in response to. See Figure 3 for the process of developing the counter-narratives.

Figure 3. *Developing the Counter-narratives*



While coding the data, I kept in mind the biographies of each participant and used the information shared in the first interview to develop their character and voice. Redeveloping their interviews into performances wherein they were engaged in dialogue using their own words from the interview turned the original interviews into performances. The performative nature of the characters and their words is the conversion of the interviews into *performance texts* (Denzin, 2003).

In performance ethnography, interviews are read and interpreted as sites of performances and can be interpreted and fashioned into critical performance texts such as CS. While performance writing is poetic and dramatic it is not void of truth or the words and ideas of those interviewed. In writing performatively, Smith (1993) used interviews that she had conducted and developed plays based on their words, beliefs, intonations, emotions, and body language. Developing such a text requires that one be a reflexive interviewer and a co-constructor of meaning in a dialogic relationship with the interviewee (Denzin, 2012). This form of writing enables the uncovering of structures of oppression that exist in the world of those being interviewed. The dialogic/reflexive interview is a

process of discovery in which the interviewer is an "empowering collaborator" (Denzin, 2012, p. 347). The development of these texts and characters can only occur when the interviewer knows what to ask and how to listen. These characters and CS are developed in such a way that the research and the finding become accessible to those outside of academic circles (Cook & Dixson, 2013).

This literary approach was embraced and sought out because of my love of how Black male playwrights have written about Black men in loving ways that are not void of critique (especially the work of August Wilson [1945-2005] and Tarell Alvin McCraney [1980-present]). The way in which Black male writers have written about Black men and their complex intersectional identities suited my writing style well and enabled the work to be accessible to a broader community. The CS gave me the freedom to develop characters and dialogue that show the beautiful complexity of Black men without the Black men being judged and having their stories essentialized or sensationalized. Cook (2008) posited that as scholars we are quick to critique and slow to listen (p. 50), this approach invited me to listen, bear witness, and testify. In bearing witness and testifying I had to be sure that I maintained the transcripts and the words of my participants and suspended my own biases.

Character Development

One of the challenges of this study was developing characters that did not deviate far from the actual participants within the study. To develop characters in the CS I thought and reflected on what I knew about each participant outside of the interviews, their dispositions, and ways of being during the interviews and how I could get these aspects of their being to show up clearly during the writing of the scenes. In *How We Do It: Black Writers on Craft, Practice and Skill*, Crystal Wilkinson (2023) wrote a chapter on the

creation of complex fictional characters. She advises that it is the responsibility of writers to give our characters meaningful lives and to tell their absolute truths. In telling their absolute truths she mentions that we must be able to talk about our characters as if they are members of our family. This task became easy for me as I have lived with the transcripts for some time and had read and re-read the transcripts so much that the characters have become my fictive kin. An important aspect for me when developing the characters started with their names and how their names had meaning. The meaning was rooted in the background study I had done on each participant and the knowledge gained about them through the interviews of the study.

Each character is intentionally known by their last name preceded by mister (Mr.) since in education this is often how teachers refer to each other, although there are times when the title is dropped when a true bond has been formed. My mentor teacher who I have known for over a decade once told me I could refer to him by his first name and it did not sit right with me, and I have addressed him either by his last name or his last name precede by mister ever since. When it comes to the last names chosen, they have been chosen based on aspects of the individuals' stories and truths they shared during the interview. The names were also chosen to give the participants pseudonyms to conceal their identities to empower them to speak freely without worry of repercussions for speaking their truths.

Naming the Characters

Mr. Reeves name is drawn from the Black sheriff Bass Reeves who is known for having been one of the greatest sheriffs and bounty hunters in the west following the Civil War. The name was selected for the character because the participant reflected much of the life of Reeves in his willingness to uphold and maintain the law with the idea that it was

doing the Lord's work for himself and for his people. Bass Reeves, in many of the stories and legends, upheld laws and practices of a country that had perceived and treated him as less than human, but he still upheld the laws and enforced them with all his might. It is my understanding that it would be foolish to think that he did not live in conflict at times and wonder if he should choose another line of work or question his beliefs. However, his badge and duty to his family would not enable him to do so. The same is true for the participant that Mr. Reeves is based upon, who is known for his unwavering commitment to mathematical excellence amongst his students and preparing them to pass assessments and enter STEM spaces he once occupied. In his interviews, the participant spoke of his love of his students and his no-nonsense approach because of the importance of the work that he saw as a labor of love and as his own personal ministry.

Mr. Bashir name is drawn from Arabia; it is an Arabic name given to males which means the one who brings good news. This name was chosen because the participant mentioned his mother's connection to the Nation of Islam (NOI) while he was a child, his father's involvement with the Black Panther Party for Self-Defense, and his grandfather's work in the Civil Rights Movement of the 1960s. The participant that the character is based upon often spoke about his pro-Black disposition and how he positioned and valued education for Black youth and how he believed that teaching was a part of his continuing the work of his families liberatory work. Along with this the connection of Islam to Malcolm X and his rebirths (Malcolm X) connected to this participant as he went through the interviews and spoke about his transitions in his beliefs about teaching and learning mathematics and his willingness to adapt. The name Bashir embodied these principles and

gave the participant and character and voice or stance that juxtaposed the others who were more centered in Christianity as part of their identities and beliefs.

Mr. Wayne draws his name from Bruce Wayne, the man behind the mask of the Batman. The participant is a well-known fan of the Dark Knight as seen through his social media engagements and my relationship with him prior to the study as an avid fan of Spiderman and Marvel Comics. The last name Wayne fits the participant and character well because the theme of Black male math saviorism appears throughout his second and third interviews. The work of Batman and Mr. Wayne are similar in portraying the type of hero that the people want him to be as a teacher of mathematics. In an interview, Mr. Wayne speaks about how he taught in one way at one point and then transitioned to a different way of teaching because of the shifts in his understanding and development as a math teacher. When asked clarifying questions regarding his shift, he spoke about not matching the type of hero/teacher parents wanted for their children, so he had to choose a path of least resistance. The aspects of saviorism and heroics were an important theme within the participant's experience which made this name for his character so important.

Mr. Lamar is the pseudonym for myself and my character as I engaged in conversations with each of the participants. The name Mr. Lamar was chosen as it is connected to Kendrick Lamar mental status during his composition of *To Pimp a Butterfly* in questioning his role in hip hop amidst all that came with stardom and success. My embodiment of Mr. Lamar grapples with the question of what it means to be a Black male educator navigating the allure to be successful as seen through the gap gaze. The conversations that are had with each of the teachers is symbolic of myself trying to come to terms with teaching mathematics as a Black man and how to navigate the tensions

between identities. Sequoia Maner (2022) wrote that "America measures a rapper's manhood in regard to wealth-based success" (p. 13). In Mr. Lamar's conversations and questions, he is pondering how his Black manhood and success as a Black male teacher is measured regarding assessment-based success. To make sense of his ponderings he reaches out to these three Black male math teachers and converses with them using questions aligned with the themes that emerged from the interviews and reading of the transcripts.

Developing the Synopsis

Building the dialogues and interactions between Mr. Lamar and the other characters was rooted in reimagining the interviews as phone calls, that essentially turn the transcripts into performance texts. The conversion from interview data to dialogue in the form of a play enabled me to stay truer to the raw data and to avoid turning my participants into puppets serving stories that I wanted to tell. After getting the names of the characters, I then re-read the transcripts to give life to the participants' words across interviews to discover themes. Within each interview there were various themes and there were even overlap that show up in more than one participant interview. For example, when going through Mr. Reeves interviews, I knew that the theme and narrative that was most vital was the racism or the exclusionary nature of assessments and his navigation of these politics. To do so, I had to start with his background and consider the connection between himself and his grandfather regarding his engineering career and his position on having student dominate mathematics. I mined the data for times when he directly or indirectly addressed the achievement gap or gap gazing and his beliefs around the gap. I also found moments of tension in the interviews where he spoke to how he might work against the work of gap gazing to support his students' development of their mathematical identities. This was

important because I did not want to develop damage-centered studies and position characters/participants as good or bad, but rather as complex. Finding words and phrases that reflected his complexity was challenging because I needed to make sure that the words were either pulled directly from the interview data so that I could justify my characterization and performance.

The same process was engaged in with the development of CS for Mr. Bashir and Mr. Wayne, as I mentioned in the development of their name, I took those same themes with me as I mined the data for words and moments that could be used to develop the stories. The development of the stories/scenes necessitated that before each scene of the play I gave some insight into each character and what brought them to the moment outside of their mini biographies. Using direct characterization enabled me to lay the groundwork for readers to enter the scene and come away with new knowledge about the characters as they interact with Mr. Lamar through their dialogue. While I am part of the data and study as Mr. Lamar, it was important that I reflect on my own positionality as a researcher as well as a participant to understand the influence that would have on my own interpretation.

Discovering the Scenes (Critical Moments)

One of the challenges in developing counter-stories into a play with multiple scenes across interactions with an individual character was identifying critical moments that resonated with myself and the participants. When I initially developed the first edition of the play, I looked for critical moments and lines within the transcripts that served purposes that I had upon entering the study and viewed my participants through a puppeteer's lens. I was listening to my participants in the first interviews, but I was not always listening to hear them as much as I was listening to tune their voices and ideas to serve my study. In

doing so I was able to develop a play with each character's voice but made them function in ways that I deemed necessary for the play to function. To shift from this, I had to phase out my lived experiences and static understanding of my participants. I needed to see them as individuals who were making meaning of their experiences within the study and even outside of the study. This led me to shifting in the second and third interview to listening more to what the participants were saying and what it was revealing to me about their understanding and negotiation of policy.

In the initial phases of writing the play I sought to make the stories and lives of my participants more ambiguous, but as I interviewed and analyzed their data numerous times, I noticed how imperative it was to keep my participants intact. The idea of developing mosaic characters and mosaic moments like a composite story with amalgamated characters was abandoned because I was arriving at a finished narrative with fractured beings. As a Black male qualitative researcher, I knew it was important for me to keep my participants whole for their truths and the complexity of their lives to be understood by readers. With this disposition I deleted the play that I had written before and began anew looking at the participants again to develop CS that made them whole.

This meant that I needed to develop scenes that authentically reflected the interactions that I had with each participant. In the first iteration of the play, I placed the participants at the same school and had them interacting with each other throughout a school day. I abandoned this idea to remain true to phenomenological and not ethnographic nature of my study. The interactions that I initially wrote were not true to my participants/characters because I had never seen them in the same space together as educators or as people. To develop scenes more fully, I revisited interviews through reading

the transcripts and listening to their narratives. I looked introspectively to consider how interactions between myself and each participant differed. Through listening and reflecting, I began to hear and see (read) the interactions and unique themes. The critical moments began to arise as I went through the transcripts.

In interviewing and interacting with Mr. Bashir, I found it unique that though he discussed the implications of assessments on students' math identities, he did not get as caught up in their results as the other participants. To make sense of his robust mathematics teacher identity I had to go back through the data and see how his backstory or early math identity was developed and the ways that it differed from the other participants. Re-reading the transcripts I noticed how other participants had moments of fragility within their math identities because of negative interactions with assessments or being in STEM situations where they felt ill-equipped for the challenges of the calling. Mr. Bashir's upbringing included a solid cultural identity with political knowledge and action through his family's involvement in many significant Black liberation movements in the United States (Civil Rights, Nation of Islam, Black Panther Party for Self-Defense). Prior to becoming a teacher, he dealt with racism and chosen positions that enabled him to avoid White gaze without depriving himself of opportunities. There were also moments in his early career, as business student and operation manager, where he lived through and identified myths that were being attributed to his body and his excellence because of his identity as a Black man. When I recognized his profound insight and the criticality of his analysis of racism and the racial hierarchy of mathematics, I knew that it was a theme that I needed to draw upon for a scene in the play.

To highlight the complexity of Mr. Bashir's analysis of racism and the racial hierarchy of mathematics I needed to identify a moment/space of tension within his practice as revealed through the transcription of his interviews. I found these moments throughout his interview where he spoke about preparing students to do well for standardized mathematical assessments. In the interview, I asked Mr. Bashir to make sense of this tension. In doing so, he engaged in some reflexivity and noticed some inconsistencies in his practice that were developed through his training as a mathematics educator. Upon having this epiphany, I knew that it was a point that wanted to delve into and build a scene. In a previous iteration of the play, I took the characteristics and fullness of this moment and downplayed it into a moment of lesser power and resonance with the words and ideas of the participant. This same process was adopted for the other participants as I found moment when they critiqued a policy yet still carry out the policy or when they pushed back against a policy only to relent to receive some form of reward—like a higher rating on teacher evaluation.

When interviewing Mr. Reeves, I noted that throughout his interviews he had investment in his Black students' success in dominating assessments and the systems determined to dominate them. In the initial interviews with him and initial developments of his character within the play I envisioned him mostly through that lens and interpretation of his experiences and pedagogy. However, the more that I explored the transcripts and learned about Mr. Reeves, I started to realize the complexity in his character, and I wanted to reveal that tension. This revelation came in an interview when I spoke to Mr. Reeves about how he was impacted by student performance on standardized assessments. In previous interviews and moments, he rushed through his mindset and reflection, but there

was a particular interview that enabled me to get insight into his frame of mind which required me to be vulnerable. As he reflected on the work needed to assist students in successfully navigating inequitable assessments, he noted that he always made space for grace. Even though he had students who did not fare well on assessments, he held on to the belief that there was always tomorrow and that there were many outside factors impacting students' mathematics identity and performance. I chose to build a scene around this moment and these words because it addressed the complex third space that exists for Black male educators who believe there is always tomorrow but work with those who tomorrows are not promised. To give life to this moment, I had to draw out its intricacies and bring out its emotions using a medium and style that did not come off preachy. To give meaningful life in each of the narratives I positioned myself as Mr. Lamar in order to draw out these truths authentically in ways that Black males inadvertently raised with each other in the profession.

Choosing A Play & Perspective

When determining the best way to present the data, I thought immediately of a play because of how it tethered me to the actual words of my participants. I knew that one limitation of the study was my inability to travel to see my participants in person, so I wanted to use the limitation of the study to inspire transcendence. Two creative works came to mind when I thought of developing plays. The first was blackout poetry, and the other was *Fences* by August Wilson. Blackout poetry is an artform also known as "erasure or redacted poetry" (Sccldalumni, 2023, para. 1). It is a way to create new meaning from words that are already written on a page. This form came to mind first as I thought of this poetic inquiry and its similarity to how qualitative researchers use ethnographic or

phenomenological methods to highlight participants' words, working them to pull out themes, redacting aspects that distract from a deeper meaning of their ideas and experiences. I thought of *Fences* because of Wilson's ability to show the rawness of Troy's experiences while enabling us, the audience, to see and feel the complexities of his life that have led him to become the man, father, and husband that he was through the play. When working with educators I knew that there were parts of their stories and narratives that must be highlighted for others to see their complexity. I wanted to do so authentically without making my participants seem like saints, heroes, or messiahs. I wanted their humanity to show through the page so that others could see them as they are and understand the complex, and political, work of teaching mathematics in urban settings. In my opinion the best individual to elicit the genuine and most vulnerable insight from Black male teachers is another Black male teacher. This is why it was important for me to center myself within the study as the character Mr. Lamar. The character was essentially me in the interviews speaking to my participants about how they are making sense of their own political negotiation while making sense of my own negotiations alongside them as a mathematics educator.

The play was organized as a compilation of phone calls to stay true to the nature of the study that happened via Zoom calls. The moments between or leading to the calls had to be situated as Mr. Lamar reaching out to three Black male mathematics teachers who he has known through his life. He is just reaching out for advice following heavy moments as an educator. Each scene's dialogue takes the form of phone call between Mr. Lamar and the men he has met throughout his ten-year teaching career. To contextualize each scene every character's backstory is provided so that the interactions can be better understood.

Each line of dialogue by the characters come directly from the transcripts. Tethering myself to their words and ideas made their beauty and truth shine true and then encouraged me to match my own words and ideas through Mr. Lamar to develop the scene more fully in alignment with the interview data. The centering of my interaction with each participant and character made it of utmost importance that I understood the way I entered, resided within, and exited the study with my participants.

Positionality

Researchers who are collecting and analyzing data are wise to tend to who we are, who we have been, who we think we are, and how we feel affect our data collection process (Pillow, 2003). Positionally is rooted in acknowledging the identities of the researcher and how they might impact our interpretation of data. As I conducted interviews and engaged in conversations with other Black male mathematics teachers, I entered the conversation as a Black male middle school mathematics teacher in a large public school district in the Midwest. Throughout my ten years of classroom teaching, I have taught elementary and secondary mathematics and have coached teachers in each of those respective grade bands in the teaching of mathematics as well. In my work, I have my own experiences navigating the politics of forming a pedagogical framework that did not always connect to my teaching peers for a variety of reasons. Cornel West (1993) reasoned that it is difficult to work for emancipation on behalf of others until one has emancipated oneself. I came to this study, not as one who has arrived in the promised land, but as one who has been on the paths towards new visions and dreams regarding the teaching of mathematics with my participants.

This study examines Black male mathematics teachers and. Being a member of the community that I am investigating makes the positivist goals of objectivity impossible. While interviewing participants and even interpreting data through reading transcripts, the multiplicity of my identities were all present with me. At the time of the interviews, I was a practicing math teacher, a father of a young toddler, a husband, a PhD candidate, and an adjunct university professor. All those identities influenced my work and analysis in various ways because while I related to my participants, I was not them. The power that they gave me over their stories was not negated solely through member-checking. These identities pushback on the notion of being objective because every thought, question, and interpretation was subjective to the purposes of the study and my constructions.

The goals of "objectivity" do not consider my professional, racial, religious, parental, or gender identities nor how these identities intersect with each other and with the context of teaching. To suspend the judgements or analyses of these identities when I needed them would have been ill advised (Nazemi, 2022). To sit with identities and to question the nuance and kaleidoscopic visions that they are casting upon my analysis and view is another aspect of reflexivity. There is danger, seen and unforeseen, when researchers do not acknowledge the various identities in their analysis especially their racialized or classed identities (Johnson, 2002). As a Black male mathematics teacher conducting a study on Black male mathematics teachers positions me as an inside outsider as I understand that I am not positioned the same as my participants within the study. An inside outsider, if intentional and thoughtful, can combine the clarity of being outside an event with in-depth knowledge because they are also inside (McConnell, 2024).

In my work as an elementary mathematics teacher, I constantly reflected on the ways in which I was being subversive, liberatory, or complicit in my mathematics teaching pedagogy. These practices and conversations with peers happened within the confines of the teachers' lounge and classroom after the final school bell had rung. During my undergraduate years a large majority of my pedagogical philosophy was teacher-centered in culturally relevant pedagogy. I entered the classroom hoping to develop mathematics lessons that featured social justice and ethnomathematics to develop a new vision and understanding of mathematics with my students. However, in my first year of teaching much of my teaching was focused on preparing students to do well on standardized assessments.

This pivot to preparing students to do well on standardized assessments served me well as through my first year of teaching. I spent vast amounts of time and energy developing students' conceptual understanding and mathematical vocabulary. Little time, in my first year of teaching, was used to teach mathematics lessons that connected to my students' knowledge of themselves or to model how mathematics could address issues within their own communities. To make this struggle and journey in my teaching pedagogy more complex, I was rewarded and lauded for my students' performances on standardized assessments. I was offered district-wide positions to lead in developing assessments to measure and evaluate student proficiency and teacher effectiveness.

The power and privilege associated with being a new, young Black male teacher in the district who had surpassed my colleague's mathematics achievement should have encouraged me to continue this path. I had teachers coming to me asking what I was doing in my classroom to enable students to do so well on standardized assessments. While I

appreciated the accolades in the moment for that first year, I began to ponder new ways of teaching that centered the students along with culturally responsive teaching practices and methods for my second year of teaching. The pedagogical shift would cost me the privilege to do my own thing because as I noticed a gradual decline in student performance on assessments. Thus began an inner war with myself regarding how to teach mathematics.

The journey to becoming a critical mathematics educator was met with much resistance. I had ideas about how I wanted to teach but was pulled to teach in ways that conformed to the current structures of mathematics education. I created lessons that addressed aspects of ethnomathematics or societal issues—locally and wider while still revolving around what Gutstein (2012) called classical knowledge. My challenge was finding a balance in my teaching that enabled me to prepare students for the current views and uses of mathematics while still allowing them to understand the liberatory functions of mathematics.

The challenge magnified itself as it appeared in other aspects of my life. My wife challenged me to consider the impact of my inconsistency on my own life as well as on others. She pointed out the fact that a part of me was telling students that the assessments were rooted in racism and that the curriculum did not teach them about themselves, but still had them sit down quietly to take assessments. Or I would talk about issues in society that could be solved with mathematics, but then not go any further than lip service as we turned to the next lesson in our workbooks.

Returning to the university for my master's and doctorate introduced me to more critical authors and thinkers grappling with shifting the teaching of mathematics starting with their own pedagogical beliefs and practices. The texts and the ideas within them

pushed me further into analyzing my own teaching practices and the alignment between what I practiced and what I believed. As I entered this study, I did not enter as one who had arrived but as one who is still on a journey, exploring other terrains. My experience as a mathematics classroom teacher both draws me nearer and further away from my participants as a researcher who is therefore an insider and outsider.

The sense and practice of being drawn away from the lived experiences or positionality of my participants is centered in my relationship to the written word, particularly published written words. In my writing about the experiences of my participants I aimed to have individuals like themselves read the words and use them to guide their practices. Teachers are expected to read and apply works that have been published by those within universities and colleges of education and use them to guide their teaching practices. The unique conundrum is that many times researchers, such as me, must enter their spaces to gather their narratives, experiences, and knowledge, and then publish it to maintain our status within a system that we may be critiquing with their words. I must recognize my own power and privilege. The dilemma that I have as a Black man is that I dance between borders and boundaries of being both the colonized and the colonizer.

Villenas (1996) spoke to her own navigation of this conundrum in her work with Latina mothers at a local community center about their beliefs and experiences regarding education and raising children. In her work, she speaks of twoness as she felt as an outsider as she entered spaces with Latino community members of various socioeconomic status with White colleagues and felt like an outsider because of her insider position presented as a part of the university. At the same time with her White colleagues, she felt like an outsider because of her Chicana identity, which she thought would draw her closer to the Latina

women she would interview for her study. She realized that in her work she would become an expert on the experiences of those who she was researching yet those she researched would not have the same access to the experiences or even be seen as experts on their own experiences. Similar challenges were present as I engaged in the present study because I spent much time battling inwardly with not wanting to be a part of the colonization process of research, yet I am complicit in the process as I seek to be seen as an expert in the field based on these same colonizing practices.

One solution Villenas employed was to find a permanent space within the community that she researched to alleviate entering a space only for their knowledge and then leaving. She continued to engage through tutoring services and working with families in a myriad of ways. Often when interviewing participants, they mentioned how they were glad that I was engaging in the work and were looking forward to what would become of our community and bond. Listening to their responses I knew that at the conclusion of the study leaving the field would make me like the colonizer researcher no matter how many times I returned or what supports I could offer. I would finish the study and continue to publish articles and book chapters and be positioned as an expert because of my ability to describe and analyze the experiences of others.

Despite how I may aim within my study to stay true to the words of my participants and to present the data in ways that stay close to their words and ideas, I am still given the power to portray them and use their words. Being an inside-outsider gives me the trust of my participants and I gain it in ways that others cannot, enabling me to do colonizing work. However, in addressing my own complicitly in framing the lives and experiences of Black male math teachers, I also expose and interrupt negative representations of them. As a

qualitative researcher I must consider the process of the study and how it enabled me to become a part of a community and depart from that community as well (Mangual Figueroa, 2014). In concluding the study, I maintained contact with my participants and offered them resources afforded to me that could assist them in their journey as teachers of mathematics. My residence at the border of self and other keeps me grounded and reminds me to constantly question and critique the multiplicity of my identities and to not assume that they offer me absolution from colonizing practices and perspectives (Fine, 1994).

CHAPTER 4 – COUNTER-NARRATIVES

> *For whatsoever things were written aforetime were written for our learning, that we through patience and comfort of the scriptures might have hope*. Romans 15:4 (KJV)

Using the tool of counter storytelling, this dissertation study aimed to describe Black male mathematics teachers' experiences negotiating education policy. The dialogue emerges between four educators (Mr. Reeves, Mr. Bashir, Mr. Wayne, and Mr. Lamar) in a sequence of phone calls from Mr. Lamar. See Figure 4 for the characters' summary.

As you read this CS, I ask that you "suspend judgement, listen for the story's points, test them against your own version of reality and use the counter story as a theoretical conceptual pedagogical case study" (Solórzano & Yosso, 2001, p. 477). The dialogue, setting, and thoughts of the characters are developed directly from the interviews conducted by myself with three other Black male math teachers. As you read through the scenes of the play you will come to understand some of the inner workings of the mind of these Black male educator making sense of their pedagogy. The study brings to light the experiences knowledge, and identities of four Black male math teachers but focuses on the perspective of one character present in each of the scenes asking questions of his elders and professional kin.

Though this is a novelized rendering of the experiences of the participants of the study the words, tensions and interactions are rooted in truths. In seeing this counter-narrative as a case study, it can be used to grow in understanding of the experiences of Black male math teachers and enable you as the reader to bear witness to the complexity of the experience. Outside of the counter-narrative it is a challenge to understand the experiences of those who have had their knowledge and experiences concealed or constructed as invisible. To place their stories and experiences in the center enables us to

see things that we had not seen before and gives hope and voice to those whose experiences sit close to those in the narrative. The study reveals that Black male teaching and teacher identity is not inborn, static, or neutral but is nurtured, fluid, and inherently political. Viewing the play then as an instructive vignette enables readers to see the inner work of Black male math teachers.

Bennett (2020) in analyzed the role of Black men in US literature. Within his text, *Being Property Once Myself*, he investigates texts about Black men by Black authors and looks for lessons about "what black men are, how they live, or whether their living is always already a spectacular kind of dying" (p. 67). The present study, much like the work of Bennett, seeks to view Black men, math teachers specifically, beyond the grave and their constant forced performances as either unicorns or missing. These instructive vignettes, portrayed as scenes in a play, center Black male math teacher experiences in math education communities that explores their experiences, knowledge, ideas, and identities as they negotiate the political terrain of mathematics teaching in the United States.

The Play: Spooks, Saviors & Saltwater

Characters

Mr. Reeves

Mr. Reeves attended a four-year university and received his bachelor's degree in mechanical engineering. His early love and passion for mathematics, science, and engineering was fostered by his late grandfather. Mr. Reeves described his grandfather as a self-taught individual who was always reading to learn something new and as a man's man. Mr. Reeves saw his grandfather through the eyes of a loving grandson and as one who had experienced being seen as less than because of his race or because of his

education. He valued that his grandfather learned and accumulated knowledge untraditionally, meaning that his grandfather learned through reading books rather than formal education. This love of reading and learning instilled in Mr. Reeves the impetus to always be found with a book in his hand and with the zeal to learn. This passion for learning and relationship with his grandfather led Mr. Reeves to go on to university to study and graduate with his degree in engineering.

Mr. Reeves felt unprepared for the work that he sought to do as an engineer after graduating from the university because while he knew the theoretical aspects of mathematics, he struggled with applying his skills with industrial heating equipment. He felt as though his coursework did not adequately prepare him for a career in engineering and this led him to what he considered a very painful part of his career. The pain of not being able to fulfill his career aspirations as an engineer guided him into a relationship with the teaching of mathematics. He uses his experiences and the words of his late grandfather to guide students to pursue careers in engineering and technology.

His transition to the classroom from engineering started through substitute teaching mathematics at various high schools. He has worked within private schools that have served Black students with the aim of preparing them for collegiate success for most of his career. Mr. Reeves's teaching pedagogy and content knowledge is rooted in his experiences as an engineer and his grandfather's philosophy of self-reliance and community uplift. Mr. Reeves is a self-taught educator; he has not gone through a college of education or alternative certification program to learn various methodologies of teaching but has followed in the mold of his grandfather in developing and honing his teaching craft. Though he is a self-taught mathematics educator, he has won awards and received

recognition for his mathematics teaching in part because of the success that his students have on Advanced Placement (AP) exams. He is known and revered for his no-nonsense approach to teaching mathematics and encouraging students to achieve their goals by any means necessary. He has an unwavering passion and desire to lovingly push Black students to achieve success within STEM careers after they leave his classroom.

Mr. Reeves and Mr. Lamar's relationship began when Mr. Lamar was a fourth grader. Mr. Reeves was starting his teaching career at the same school as Mr. Lamar's father, who taught religion. They continued to cross paths as Mr. Lamar began his career as an educator in the same town as Mr. Reeves and found themselves teaching mathematics within the same programs. Each has their own unique perspectives on teaching and learning mathematics. Mr. Reeves is now a husband and father, which further cements his bond with Mr. Lamar who currently is raising his only son.

Mr. Bashir

Mr. Bashir graduated from a four-year university with a bachelor's degree in operations management and information systems. He left that industry after a few years of dealing with the stresses of the career, racialized experiences, and strain on his ability to be fully present as a husband and father of two. He began substitute teaching while working as a real estate broker. Mr. Bashir comes from a family of individuals active in the struggle for the liberation of Black people in America and is the son of a Black Panther and conscious educator. While working as a substitute teacher, a principal noticed the relationship that he had with students and asked him to consider entering an alternative certification program to teach. Following the crash of the real estate market in 2008, Mr. Bashir followed the principal's advice and entered and completed the alternative

certification program. He began teaching fifth grade. Following departmentalization, splitting the curriculum into content areas, throughout many parts of the district he gravitated towards teaching mathematics. Though he has never been recognized for his teaching or student success, his students have done well on assessments throughout his career. He has only worked with urban schools that serve Black students, and focuses his work is on giving back to his community through teaching and preparing students for opportunities to provide for themselves and their families beyond the dream of sports and entertainment.

Mr. Bashir's teaching pedagogy is rooted in his familial involvement in the Civil Rights movement of the 1960s, the Black Panther Party for Self-Defense, and the Nation of Islam. He regards teaching as one of the best ways to give back to his community through service. This is seen in his work with students in teaching them about the power of education and mathematics to give them access to various careers and pathways that they might not have considered. His background and upbringing have various similarities with his students and their families, and he makes it part of his mission to prepare them for life beyond the classroom whether it be working in a STEM field or in some other community role. Mr. Bashir is an elder within the field of education, after teaching for close to twenty years and an elder within the field of parenting as a grandparent. He met Mr. Lamar early in his career when they taught within the same hallway for a few years before Mr. Lamar left the city to teach in another area of the country.

Mr. Wayne

Mr. Wayne is a Golden Apple Scholar and graduated from a four-year university with a degree in urban elementary education. His concentration is in middle school

mathematics teaching. Mr. Wayne and Mr. Lamar graduated together from the same college of education. This served as the foundation of their relationship and bonded them as Black male mathematics teachers. In preschool he had a teacher who made him feel safe and calm. He wanted to replicate that feeling for other children which led him to becoming a teacher. His desire to teach middle school mathematics came after a moment in elementary school when he did not fare well on an assessment and he was determined, or destined, to repeat the grade where his struggle with math emerged. After college, he went directly into teaching and helping his students through connecting his own struggles, both mathematical and non-mathematical, with their own. He has taught middle school mathematics at the same school for the past ten years. While in undergrad he taught within the community he grew up in. His teaching career has been at a school that serves predominantly Latinx and Asian students. He has currently enrolled in a university program to pursue his credentials to become a building/district leader or principal.

Mr. Wayne's teaching pedagogy is rooted in his familial background, being raised by his mother and grandparents. Struggle was not foreign to Mr. Wayne, but he believed, and still believes, that with a strong work ethic and determination anything is possible. He credits his late grandfather for his motivation to pursue teaching but even more so for the fortitude to push through challenging circumstances in pursuit of excellence. This same determination that he had is prevalent in his teaching as he acknowledges the lived experiences that his students face but compels them to push through life's challenges—even unfair ones. He also credits his mother's no-nonsense math methodology of teaching him concepts at the kitchen table. He often states that part of his teaching style is like parenting, his own brand of Black parenting.

Mr. Lamar

Mr. Lamar entered the teaching profession as an undergraduate after his hoop dreams ended during the summer before freshmen year. He graduated from the same college of education as Mr. Wayne and returned to the university after his first year of teaching to receive his master's degree in literacy after having limited success with his student's literacy development according to his analysis of their test scores. His passion and desire to teach was rooted in his love of working with students and his competitive spirit the genesis of which began in sports. This competitive spirit sparked his desire to have student success on assessments. He had varying success in his early career on assessments and centered much of his early work on critical mathematics teaching like Mr. Wayne. After a tough year with low assessment data, he and his wife moved to a new city where he started again working with a more diverse student and community demographic. He relationships with the three Black male teachers of mathematics keeps him grounded which he needs more as he is now a husband and father of a Black boy.

Mr. Lamar's teaching pedagogy is rooted in his experiences as the son of a preacher and the grandchild of a religious family. Growing up he sat in his father's congregation and absorbed sermons and lessons to congregants. He watched how his father connected the struggles and experiences of members' lives to those in the Bible. He witnessed how his father included personal narratives and social justice to impart into the members the importance of social justice and the gospel. His mother served as guide for him as his first mathematics teacher and, along with his father, encouraged him to use his understanding of mathematics to seek out careers available to the few who had skills to master and understand mathematics. He carried those lessons with him into the classroom as he

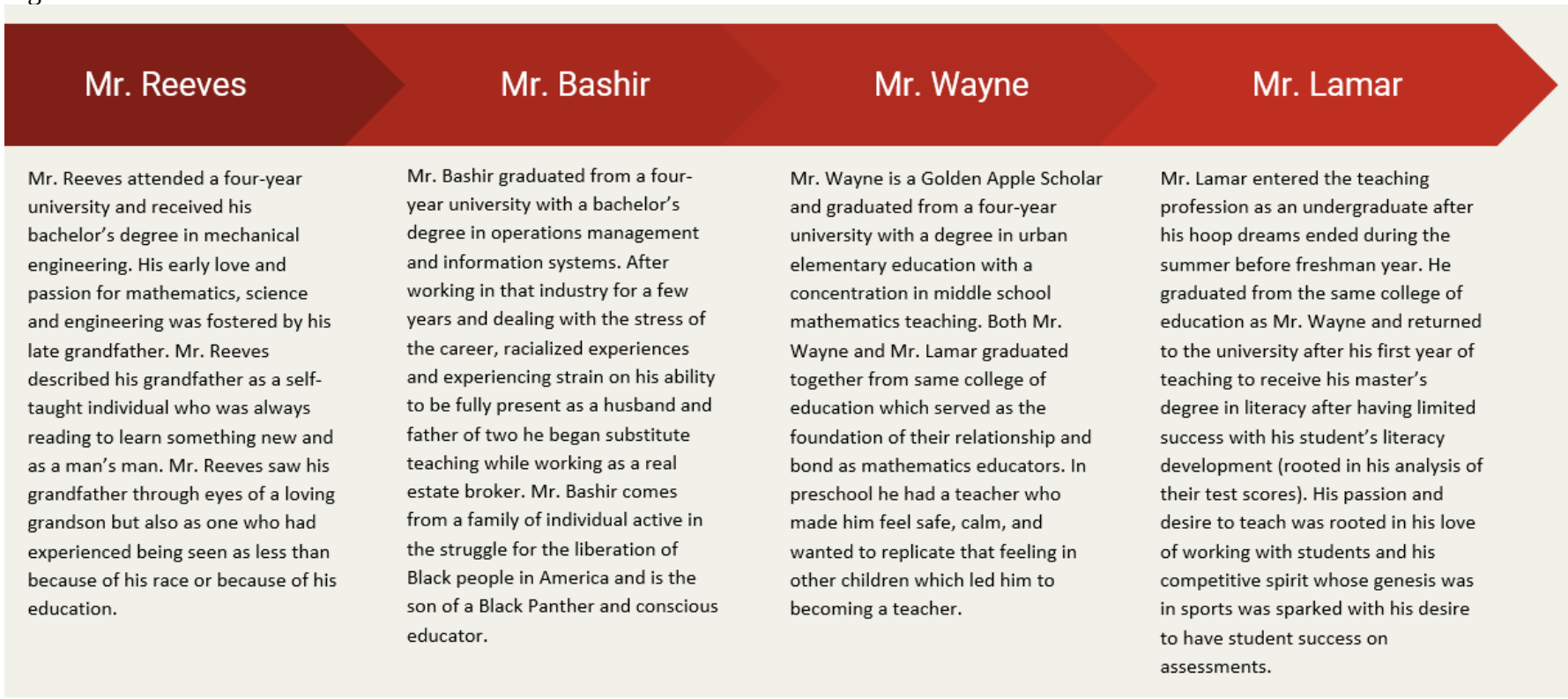
navigated trying to teach students the power of mathematical knowledge in the US and how to push back on that power as well. As a young Black male, he decided to teach mathematics because of the allure of the heroics of the profession and how he was often positioned as a hero, savior, or unicorn. However, in recent years as he has continued to teach mathematics and coach mathematics teachers, he finds himself at odds with what had drawn him to mathematics, both the call to the possibility of economic freedom and the myth of messiahs.

Acts

Prologue

Mr. Lamar, a veteran educator, is preparing to enter his tenth year as an educator but finds himself at pedagogical crossroads regarding his teaching of mathematics. In his current school, he is the only Black teacher on staff and within his district he is one of the few Black male mathematics teachers. For the past few years, he has been teaching at an affluent magnet school that served mostly White families with a decent sprinkling of Black children in the middle school grades who he encourages to take Algebra before they leave and enter high school. However, recently after taking a few graduate courses and reading a few critical texts he is beginning to question his past teaching practices and beliefs and is trying to make sense of his next steps. To aid in his journey he reaches out to three Black male math teachers that he has known throughout his teaching career either through social media connections or through working together.

Figure 4. *The Characters*



The first scene is with Mr. Reeves who is an elder in mathematics education; he has been teaching mathematics to Black high school students for the past 25 years. He and Mr. Lamar have not always seen eye-to-eye as Mr. Lamar often critiqued Mr. Reeves's sharp focus on his students performing well on assessment and getting access to top-tier math and science universities in the United States. Mr. Lamar, on the other hand, preferred to focus more on the pragmatic uses of mathematics and to center his teaching on how students could apply mathematics to their lives. He tried to mix these interests into his instruction while maintaining high growth and achievement on mathematics assessments, especially at his new magnet school. In the first scene, he calls Mr. Reeves to discuss his thoughts after an assessment when he was not pleased with the performance of students because he knows that Mr. Reeves, as an elder, is able to offer him some words of wisdom.

In our second scene, Mr. Lamar reaches out to Mr. Bashir to counterbalance what he has heard from Mr. Reeves. With Mr. Bashir's family of activists who were involved in significant Black social justice movements of the 1960s and a mother who was an educator, Mr. Bashir and Mr. Lamar share a passion for social justice and teaching mathematics for liberation. Mr. Bashir has always spoken to Mr. Lamar about how, as a Black man, there is no better way to serve your community than to teach. Their conversations voice the complexities of teaching students a form of mathematics that is foreign to them but is necessary for them to survive the country and world in its current composition. Mr. Bashir speaks about the limitations of the assessments and how to take the words, numbers, and results with a grain of salt. Mr. Bashir is also an elder math teacher who has focused his work on teaching math to students in upper elementary and middle school as he has been teaching for more than seventeen years.

In our closing scenes, we have interactions with Mr. Lamar and Mr. Wayne who began their teaching careers at the same time, graduated together, and spent the last three years of undergraduate education together along with another Black woman. When Mr. Lamar reaches out to Mr. Wayne, he grapples with the Black male savior myth that does not serve many Black students at the school where he has chosen to teach. He reaches out to Mr. Wayne because of the similar nature of their careers and because they both teach at schools that do not serve mostly Black students. In their dialogue they contemplate the myth of Black saviors and their current understanding of the role of Black men who teach math within the larger mathematics teaching and learning community.

Each scene is a unique conversation and does not necessarily flow or build from the conversations that precede it. The only character that is involved in all the conversations is Mr. Lamar since he is the individual calling all the other teachers for their advice and wisdom regarding the various dilemmas.

There is Always Tomorrow

Setting. *After receiving his student assessment results on a district mathematics assessment Mr. Lamar is feeling down. As we enter the scene with Mr. Lamar is getting into his car, after leaving the building and calling one of fellow his Black male math teachers. It is late at night because he has spent time looking through data and searching for ways to get his students on track to perform well on the next standardized assessment. He calls Mr. Reeves following a full day of teaching to process his feelings about the students and their performance. He knows Mr. Reeves has had past success with students on assessments and hopes that Mr. Reeves can offer him words of encouragement and some success strategies.*

[Phone ringing.]

[Mr. Lamar looks clearly disheveled and frustrated. His eyes are red from staring at the computer screen after dismissal disaggregating data to try to pinpoint where he could have gone wrong in preparing students for the assessment.]

[Mr. Reeves picks up pulling Mr. Lamar out of his ruminating]

MR. REEVES: How’s it going Mr. Lamar?

MR. LAMAR: Things are going…alright. Did I catch you at a good time? I know you are probably trying to get your son down for bed.

MR. REEVES: No, it's fine. It's fine. He just went down a few minutes ago. What's on your mind?

MR. LAMAR: Man, I had to lean into my kids today after their performance on a math assessment that we had been preparing for throughout this year. We have spent all this time preparing for this assessment and over half of them still are testing below proficiency.

MR. REEVES: What do you mean you had to lean into them?

MR. LAMAR: To be honest, I had to raise my voice a little at them because they have been coming in and not paying full attention or not completing their homework. And now, they have these results on an assessment that shows that many of them are below proficiency.

MR. REEVES: Well, I have learned over the years that some students respond to hollering or lecturing and some just need a more tender form of correction. But what made you so upset?

MR. LAMAR: Well, you know I tell the kids every year at the beginning of the year about how I struggled with some concepts in math and how I had teachers who did not really give me a fighting chance to pursue the career path that I wanted at the university? I tell them about how I was denied access to certain things and that I teach them so that they don't have to experience the world in the exact same way that I did.

MR. REEVES: I can relate to that experience of not wanting your students to experience the same thing that you experienced. You know I had similar experiences to you, except that my experience happened more so after I graduated. I mean, don't get me wrong, I had my fair share of opportunities of feeling as though I was the only one in my engineering or math courses at the university who was not prepared for college. So, I too try to relate those experiences to them especially from a racial standpoint.

MR. LAMAR: Me too.

MR. REEVES: But remember, you are the adult who has endured and experienced the world and you are teaching children who need to make mistakes and have the right to make mistakes. They have the right to make mistakes without being belittled. We can get so caught up in trying to deal with our own trauma through our teaching that we forget to care for the students that are in front of us.

MR. LAMAR: I hear you. But how do you deal with it because you have such success with your students on assessments?

MR. REEVES: With some of my students, not every one of my students does well on assessments. You know people, say these tests are skewed for certain groups of people, but I don't engage in that argument. I just choose to do the best that I can to prepare them to dominate these assessments. But sometimes it doesn't work out that way, but you must make sure that students know that you still love and care about them after the assessment regardless of the results. When you really connect with them. A great classroom culture is one where there is no embarrassment or sense of inferiority based on the results of a single assessment.

MR. LAMAR: I hear you, Mr. Reeves. I suppose I went a little too far and should have considered more than my own feelings and desires and should have taken theirs into consideration.

MR. REEVES: You should have spent the time engaging in a dialogue with them about why they feel they did not do well on the assessment and then sharing your own thoughts because both students and teachers are impacted by that data. Our students *(points to his skin)* are dealing with more than other when it comes to assessments and navigating this world and we need to provide space for that conversation.

MR. LAMAR: I know what you mean. That is why I try to have the conversation with them about my own experiences through school and how my teachers and my schooling did not prepare me, so I am pushing them to not have to feel the same way.

MR. REEVES: But you must make sure that you match the discipline and high expectations with applause and praise for growth. Many of our children are behind because they have been systemically and historically underserved because of underprepared teachers who may not have really understood the mathematics or because they were neglected because of their Blackness or some other reason.

MR. LAMAR: Yes, I have students at my school, not only Black students, who struggle but their struggle comes from the reasons you mentioned, and issues of language or special education services and I am trying to navigate all that identity work and politics and teach mathematics.

MR. REEVES: That doesn't happen overnight or over a couple of months. You must consider the road that they travelled is like if not more complex as the one we travelled that placed us in front of them. You...we must stack a whole lot of positive experiences for them, not just one.

MR. LAMAR: True.

MR. REEVES: I understand the need for assessments and understand their importance, but they are only one measure. Students need to be prepared for the assessments and we need to make sure we are doing everything within our power to prepare them for success on them and to wrap them in enough love that when they do not reach their desired expectation that they are still confident in their mathematical abilities. We are Black men who have struggled as our students have struggled, and that bond enables us to build that loving bridge to equip them to dominate these assessments.

MR. LAMAR: I hear you.

MR. REEVES: I was at the same point you were at points early in my career and did some of the exact same things, so I am not coming at you either as someone who has not experienced or done the same things. What I had to learn, however, was that there is always tomorrow. And if there is a tomorrow, we can let grace abound today.

Mr. LAMAR: I never thought about it like that. I thought that since you had such success with students on assessments that you were all gas and no brakes. I thought your success on the assessments was rooted in your focus on them and preparing students for them.

MR. REEVES: Many people do, but this career is much more complex than that and just because someone is having success does not necessarily mean that they have sold out as some people may say.

MR. LAMAR: Yeah, I know what you mean. I am still working on that balance. Well, I'm going to let you go because I need to get in here and get some sleep before getting back to it tomorrow. I'll talk to you later. Thank you again for picking up.

MR. REEVES: Anytime.

Nothing to Prove

Setting. *A week after the first scene, Mr. Lamar calls Mr. Bashir to catch up and to talk about how he has been doing at his new school with the more diverse population that he currently teaches. The conversation shifts towards how teaching styles changed based on the students who they teach mathematics to and the worlds they are navigating.*

[Phone ringing]

MR. BASHIR: What's up Mr. Lamar? How you been? Haven't heard from you in a while? How is the new town serving you?

MR. LAMAR: Man, it's different. It is different. I have never worked with this many White students and families before in my career. I mean my parents had me in a lot of schools that were majority White growing up so it's not too off putting for me, but it is different. I feel like I had a more Obama upbringing, so I am not at loss in the environment, but it is different from when we worked together.

MR. BASHIR: Man, I couldn't even imagine working in a school that is predominantly White, I don't even know how I would fit in. But you know we grew up at different times and in different places, but yeah it ain't for me. So, what's up?

MR. LAMAR: Not much, I was talking to another teacher, a Black man, that I worked with before about my testing data the other week that had me down and he just offered me some encouragement and guidance.

MR. BASHIR: Yeah, we were just looking at some of our data over here at our school and they have us getting kids into small groups and focusing on student-to-student dialogue and all the while pushing their new buzzword of rigor.

MR. LAMAR: It's always a new buzzword or phrase in education, especially in urban education.

MR. BASHIR: Yes, but they keep forgetting that our responsibility is not only to teach students how to pass a test, but it is also to get to know students. It is like last year; you remember at the end of the playoffs when the reporter asked Giannis if the season was a failure since they didn't win the championship?

MR. LAMAR: Yea, I remember that.

MR. BASHIR: He mentioned that the championship is not the only measure of success in sports. I feel the same way in education, specifically in mathematics, just because kids are not doing well on assessments that does not mean that the entire year is a failure.

MR. LAMAR: I agree with that, but what about when it comes to your evaluations? I mean even in sports when players do not win championships it impacts their legacy, their compensation, and other things.

MR. BASHIR: Yea, but just like with most things in this country there is bias in testing. So, how can we measure student success based so much on a biased system? It is not even good at doing that at times.

MR. LAMAR: What do you mean by that?

MR. BASHIR: Well, we take these assessments and then they tell us what to work on with students but sometimes the assessment is way off. They had me pull a group last week to work on addition based on their testing data and the kids knew exactly what to do. I mean I knew it already, but because the district wants us to follow that we had to do all these things. So, while the test is a useful tool it is not the only one, we should base every decision on.

MR. LAMAR: I can see that. You see based on where I am with the parents and students doing well on assessments, I do not have to deal with that as much and I have a bit more freedom in how and what I teach, but only as long as the data keeps supporting it.

MR. BASHIR: You know, I feel like there are so many other variables that other students, I am going to speak particularly to Black students, must navigate on top of learning the material that is never accounted for. I mean with White students and schools that serve White students especially those that are well off you can teach and navigate things differently.

MR. LAMAR: The teacher I was talking to last week said the same thing, regarding considering what students are dealing with in our approach to preparing them for the world.

MR. BASHIR: That's true, and I think money is a thing on top of race because even though when I was in school, I didn't deal with hunger or poverty like some of my students, I had friends that did. So, I must take that into consideration when I am teaching material to kids too. I mean, I had students in my class during the beginning of the pandemic who were trying to learn math and cook food for their younger siblings. Administration and the district may or may not know all of that when they are judging me or looking at what I am doing in my room.

MR. LAMAR: You have people coming into your room to see if you are following the districts goals with fidelity?

MR. BASHIR: My classroom is an open door. But I did not get into teaching to be celebrated by administration or by the district. I am not concerned with them patting me on the back or telling me good job because of how my students are doing on assessments. I am much more concerned about how my parents feel about me. I have been teaching long enough to know that the greatest successes you will have in the classroom will never be recognized by a standardized test or by administration. With them it is all just a numbers game, and it never adds up for us.

MR. LAMAR: Man, I hear you. I am growing to know that and am trying to pull myself from that need for the approval of the district or

principal. I have had many years where I am making decisions to please those on top or even just trying to win at the game set up for me to lose. Sometimes it is like teaching to the test is a Sisyphean task. I am trying to let it go but because of my experiences and my desire to compete I want them to do well on assessments.

MR. BASHIR: I mean that is good and all, but what does a high-test score really tell you? It may tell you about what knowledge they know about some mathematics, but it does not tell you if they will be a productive member of their community. I mean for some of our kids' tomorrows ain't promised so they are trying to just get by, and math is not their top priority. At least not school math as it is currently taught.

MR. BASHIR: My pro-Blackness and pro-community organizing does not always show up in my curriculum, but I do try to prepare them for the world through my conversations with them. I want them to be able to experience success within the confines of the system that they live within.

MR. LAMAR: I hear you. I mean my kids are not up against the same thing as your students, at least not as a whole, but I still do see the importance of preparing them for the communities that they will have to navigate.

MR. BASHIR: As a Black teacher, outside of assessment, I want them to see that there is more out there than just being Beyonce or LeBron. I also need them to believe in themselves regardless of what an assessment says about them. Because I know what assessments have said about me in the past and they were never accurate. I just don't want them to feel like they must prove themselves to anyone.

MR. LAMAR: I am still working on that myself.

MR. BASHIR: What is that?

MR. LAMAR: Trying to prove to the district or administration that I am a great mathematics teacher. I get upset when my kids don't do well but it is probably because I need them to prove to other people something that I want to already know about myself.

MR. BASHIR: You ain't gonna ever get it from them. No matter how much you give them or how well you get kids to do on the assessment they ain't never going to see you the way you want them to see you. They do not know everything about you, they only know you and your students by your scores. I am telling you it is a numbers game. You can play it, but it ain't never going to add up and you will always be in their debt.

MR. LAMAR: If you live for their acceptance, you will die from their rejection.

MR. BASHIR: Exactly…well let me get on off this phone. My grandson is coming over here soon and I want to be able to give him my full attention. You take care and stay in touch.

MR. LAMAR: Mos def! Take care.

Same Drugs (Inspired by Chance the Rapper and Peter Pan)

Setting. *Mr. Lamar reaches out to Mr. Wayne, his friend from undergraduate program, to discuss their decisions to teach in certain neighborhoods and their navigation of assessments in the age of accountability.*

[Phone ringing]

MR. WAYNE: No, we can talk tomorrow because y'all got me messed up. Huh, you know what, let's talk tomorrow before class. Hello? My bad, I am up here dealing with these kids.

MR. LAMAR: You ain't changed one bit since undergrad. Hahahaaa!!!

MR. WAYNE: Nope! What's up?

MR. LAMAR: Man, you saw my Facebook post from yesterday?

MR. WAYNE: The post with you and all of them White kids looking like a scene fresh out of Get Out? Hahahaaa.

MR. LAMAR: Yes, that one. I have been thinking about it a lot because I have been getting messages from people even before the post asking me why am I teaching at a majority White school when all these Black schools and students need teachers, particularly Black male teachers?

MR. WAYNE: I mean, I see where they are coming from but what they believe is not always true or what is best for us as teachers. In my opinion Black teachers are top tier because we teach from past traumas, empathy, and love. But we ain't saviors.

MR. LAMAR: I know, but I feel like when we were in undergrad, they made us feel like we were heroes and needed within Black schools that I personally believed it for a long time. Like it was up to me to save Black people living in bad situations through teaching math.

MR. WAYNE: Sometimes when we are teaching in buildings that are majority Black we are not even seen or used for our mathematical knowledge, we are there a lot of time for discipline.

MR. LAMAR: You ain't lying.

MR. WAYNE: Yes, they expect you to be a Black savior and assume that you are automatically going to be a culturally relevant teacher. A lot of times schools never consider that our experiences as Black boys and men may differ from Black students. It is lowkey racist that they assume that we all have the same narrative and experience and that we can therefore connect to all Black students, particularly Black boys.

MR. LAMAR: And when we do end up in front of Black kids, they [students] are so caught up in the novelty of us that they cannot focus on the lesson. They have a hard time enabling us to be a teacher because they are just so happy to have an advocate in the building.

MR. WAYNE: Look, I was at one school that was majority Black, and they [administrators] did not choose me to work there after undergrad even though I was from the neighborhood and had connections. It is like different schools have different purposes and desires for us as Black men that may or may not match the type of Black male teacher we aspire to be.

MR. LAMAR: I know that's right. I feel that it is not fair that we don't get to be as free in our choice or where we want to go. If we leave and go work at a school that is not majority Black, we get positioned as sell outs.

MR. WAYNE: I had that same mentality before, but I realized that Black people are needed everywhere. I mean Gotham City needs Batman, but he also serves on the Justice League to help others as well. I mean sometimes you must go to other places to develop as a facilitator of knowledge and not only as a disciplinarian.

MR. LAMAR: That is why I am where I am now, partly, I wanted to be in a place where I could work on my teaching practices and not solely work on relationship building. Which is good and all, but I lowkey was tired of the low assessment data. I do not think that the only place where that type of environment exists is with White people, but there is bias in the tests that has a racial component.

MR. WAYNE: Man, I have never had good assessment data, but they have not let me go yet. But I feel the same way about test scores at times. I feel like my students, and I are impacted by the test data because I need to do well to keep my job and they need to do well to get into a particular high school or college. I think the data impacts us in the school as well. I had a White parent who didn't want their child in my class because I was Black.

MR. LAMAR: I had a similar experience, where you are at a school with diverse students, but they end up segregating the students and you end up with the students who need more supports with no support available. Then the data becomes a reflection of you and supports the bias or beliefs that outsiders had about you in the first place.

MR. WAYNE: Exactly! But the bias not only about Black kids and Black teachers but Latino kids as well. I must advocate for students to get into advanced math classes because they have been classified as diverse learners because of behavior that is rooted in a teacher's inability to connect with them.

MR. LAMAR: It is like we must prove ourselves and prove that our students can and should be in certain mathematics classrooms. And this is not just for Black students but for Latinx students and even White girls as well. But to the conversation earlier, we are sometimes limited to have our impact only within Black schools with Black students.

MR. WAYNE: Yes, and those tests prove to everybody outside of our classrooms who we are. I mean we know who we are but to those outside we sometimes must prove our excellence. We have always had to work hard to prove ourselves and we still do. And the students have received a different mathematics education too.

MR. LAMAR: What you mean by that? It sounds like a conversation I was having with another teacher the other day about Black kids being underprepared for success in mathematics.

MR. WAYNE: Well, it is like when I taught math to Black students and even some White students the focus of their math knowledge was more skill based or computation. So, when they were given a problem to apply their knowledge they did not do as well. This year I am doing a lot of that skill teaching and not even covering grade level material.

MR. LAMAR: I know the feeling. It is like you are teaching material and students are feeling success, but the success is not necessarily going to translate to their assessment data. But at the same time, they cannot access the grade-level material without the necessary scaffolds.

MR. WAYNE: I mean, I know what it feels like because I remember my momma going up to the front of the church to pray for me because I failed a math test. She went up there and told God and the whole church I couldn't long divide!

MR. LAMAR: *laughing.*

MR. WAYNE: So now when I am teaching kids, I remember how it felt that Sunday morning and try to help them get the skills they need to pass the

assessments. Because I know what it is like to struggle in math. A lot of the people I work with must have been straight A students but me I was about that grind trying to make it in school.

MR. LAMAR: Look you and me both, I worked hard for my low B in math throughout school.

MR. WAYNE: And to our point earlier that point is not solely a Black connection because Black people are not the only people who have had bad experiences in mathematics, so by sharing that identity we can connect with more students, regardless of racial make-up. I just believe our connection with Black students is stronger because of our racial similarity.

MR. LAMAR: But that connection and bond doesn't always show up on assessment data as some people believe that it will.

MR. WAYNE: They ain't ever going to see it. And if we go to our communities and fail, it is seen as one thing and if we are teaching at a diverse or majority White school it means entirely something else about us and about an entire group of people. It's hard for us as Black men and maybe that is because there are not that many of us because of that challenge and if we dare to focus on teaching, we are expected to fail because so much of our positions in schools is rooted in discipline or in the general public's fear of us.

MR. LAMAR: Yea, I see that. Most of our expertise is seen as disciplinary as if we did not go to school to teach mathematics.

MR. WAYNE: Yea, because though my assessment data has not been as good, I feel like they hold on to me for disciplinary purposes or to use me as a tool of fear or as a collector's item. There was a Black woman that was teaching up here and when they had to make cuts, they let her go instead of me, solely because, what we both believed, was because of the scarcity of Black male teachers.

MR. LAMAR: That's wild.

MR. WAYNE: I said the same thing. But she is a math coach now in the district. It just makes you wonder more so what is your purpose in the mathematics classroom to educate or to discipline and keep certain kids in check so others can learn.

MR. LAMAR Wow, that's deep.

MR. WAYNE: Yea, but let me hop off this call and call some of these students' families because they think I forgot.

MR. LAMAR: Alright man, I'll see you.

Clownfish

Setting. *Mr. Lamar reaches back out to Mr. Wayne for a final conversation after a new policy is put in place regarding grading in the district.*

MR. WAYNE: Hey man, what's up?

MR. LAMAR: Man, you seen this new grading policy?

MR. WAYNE: Yea, I saw it. Since nobody can get a grade lower than a 50 percent, I got a boy who got a 17 percent on an assessment and now he is getting a grade he hasn't necessarily worked for.

MR. LAMAR: I have a similar situation and I can understand that the system before with how percentages were set up were built to have more students fail, but I am not sure this is the answer.

MR. WAYNE: Man, we must pass everyone! Which is impacting their desire to learn, well at least what we must teach them for these tests.

MR. LAMAR: It is like our conversation from a few weeks ago. I got people upset at me for wanting to go to a new school where the data is better and the way the school is laid out would give me more freedom to develop as a teacher.

MR. WAYNE: Man, that's what's up.

MR. LAMAR: I am just tired of having to always be a disciplinarian. I feel like my school is not enabling me to develop into the teacher that I aspire to be. Why does it seem to be our responsibility especially as Black men to struggle or to work at struggling schools.

MR. WAYNE: Yea, it is like our younger selves are presented as the problem and our older selves are presented as the solution to the problem. White folks messed up the system and they send us to clean up their mess, for lack of better words. I too am tired of struggling and working only with students who struggle.

MR. LAMAR: How do we love both our people and us? And I wonder sometimes am I staying in the places I am because I feel like I must as a hero or because I want to be here.

MR. WAYNE: You got to choose what is best for you. Because what is best for the system is for you to feel that personal guilt and to not realize that this is all systemic and the whole thing must be dismantled or disrupted. You do not have to be the hero.

MR. LAMAR: I know.

MR. WAYNE: Because that hero mentality will cause you and the kids more harm than good. You will be no better than those White Saviors, you ain't nothing more than a Black Hilary Swank. You ain't saving nobody because you ain't saved yourself.

MR. LAMAR: I feel like I might have come to certain places and schools to feed into my messianic ideas about myself and in the process caused more harm than good. Maybe I am more upset about the people being upset at me leaving and the policies because I feel like I was doing them a favor by teaching in certain communities.

MR. WAYNE: I mean the policy is messed up, but it is not our responsibility to deal with it on our own or to try to fight the system through putting our students or ourselves in inequitable situations to prove ourselves.

MR. LAMAR: It's hard though, balancing between the two. On one hand critiquing the system but on the other hand wanting to go to a place I can function more easily within it.

MR. WAYNE: You got to figure out what you are owed and what you owe. To yourself and to your community.

Chapter Summary

Critical race scholars believe that experiential knowledge is an asset. I strongly believe that when it comes to understanding teachers and even further understanding Black male teachers that it is important to understand not only how they make sense of their experiences but also how they make sense of their actions. In reading the previous composite CS, my desire is that readers become more aware of some of the complex intricacies of the lives of Black male teachers of mathematics. I hope that you can hear and feel the tensions that they exist within and how negotiate being both Black male and teacher of mathematics in the context of the United States of America.

CHAPTER 5 – FINDINGS, ANALYSIS & IMPLICATIONS

In this chapter I draw from the data, both the counter-narratives and interview data excerpts, to respond to the research question that guided this study: *How do K-12 **Black male math teachers** negotiate policies/discourses in mathematics education?* In this chapter I present an analysis of the counter-narratives, implications for policy and practice, recommendations for future research and concluding thoughts. The summary analyzes the study via its relationship to the focal tenets of CRT for this study, the permanence of racism, and interest convergence. The implications provided speak directly to school districts and colleges of education. Through the research recommendations and personal reflections, I enlighten readers and remind myself why I pursued and engaged in this study.

Findings and Implications

Research involving Black male educators has been rooted in their depiction as unicorns or in their scarcity alongside necessity. Bennett (2020) posited that the death or disappearance of Black men within American literature has come to serve as the dominant frame for thinking about Black males. This study shows that when we shift our gaze from their disappearance, scarcity, or necessity as disciplinarians, we enable ourselves to see Black men as complex beings doing (identity) work. The educators in this study were asked about their experiences and knowledge in teaching mathematics. Most of their answers were rooted in their negotiation of assessments and curriculum when working with students while developing their mathematics teacher identities in intersection with their other identities. Policymakers and districts have developed an objective assessments that do not consider the intersectional identities of Black male mathematics teachers who are tasked with preparing students for and administering those assessments. These educational

stakeholders would be wise to address the subjective nature of teaching and how the previous experiences of Black males in mathematics classrooms impact their identities.

The study revealed that many participants had not had opportunities to engage in critical conversations analyzing the role of racism in the teaching of mathematics. Most participants mentioned the bias in assessments that they prepared student to take, but often lean towards accommodating the system more than interrogating the system and the racism embodied within the teaching of mathematics--curriculum and assessments. When participants were asked why they did not choose to engage in subversive or fugitive practices many responded that they did not want to come across as "radical" or that they did not want to waste money that a district had invested in the curriculum. This study and the participants provide vignettes that preservice and in-service Black male educators can engage with to reflect on forming their own political knowledge and pedagogical stances. Their political knowledge is formed and is a part of their identities as teachers during what Gutiérrez (2013b) named the sociopolitical turn in mathematics education. The shift has come as educators develop awareness and acknowledge that they are political actors as teachers of mathematics. Gutiérrez (2013b) wrote that math teachers who have taken the sociopolitical turn "seek not just to better mathematics education in all of its social forms but to transform mathematics education in ways that privilege more socially just practices" (p. 40). Black male math teacher identities shape their engagement and desire to intentionally take the sociopolitical turn as seen in the findings of this study looking particularly at their multiple identities.

Black Male Teaching Identities

McGee (2015) in her analysis of college student mathematics identities noted the differences in Black student's intersections between their racialized identities and their mathematics identities. This study revealed that this work must be and should be extended to analyze the identities of Black mathematics educators whose previous mathematics experiences influence and impact their mathematics teaching identities and pedagogical practices as well. There is little research on Black male mathematics teachers analyzing their own experiences, or the experiences of other Black male math teachers, to interrogate teachers' negotiations of policies. At the end of their teacher education program most Black men then go onto teach for many years without being offered the opportunity to reflect on their pedagogy. Looking at the counter-narratives and the brief biographical sketches of Mr. Reeves, Bashir, Wayne, and Lamar, we can see how individuals' backgrounds and previous experiences in mathematics shaped their negotiation of education policies in mathematics. For example, Mr. Bashir's upbringing in a pro-Black environment enabled him to be able to teach and help students negotiate assessments and data without worrying too much about what the data may say about him or his students. Mr. Bashir had some struggles as a student in school but believed that it was because he just was not trying his best or because he had other responsibilities as a young Black adolescent. During an interview he said:

> "I never felt like I had to prove myself...the results on a test do not prove that I am intelligent. I belong because I did XYZ. You know what I mean...And I do not want my students feeling like that."

In this engagement, we can see that due to his robust mathematical identity as a child and his strong Black upbringing, he can negotiate and advocate for his students. By having both robust mathematics and Black identities, he is not as caught up in students performing well

on the assessment because in his own words, assessment is just a "numbers game." In our second interview Mr. Bashir reflected more deeply into his own experiences with mathematics assessments particularly at the collegiate level and spoke about how he did not feel the need to prove himself. In his reflection you can see how he was aware of the racial bias in his experience:

> "…I went to ta predominantly White school. I went to Northern Illinois University. I graduated from Hyde Park Career Academy on 63rd and Stoney Island (a predominantly Black portion of a large urban city). Yea, I didn't graduate at the top of my class. As a matter of fact, I might have been somewhere towards the middle. GPA was probably a 2.6 something. Not because I didn't understand the work, but because I didn't do the work…When I graduated from high school I went down to Northern, and I took whatever they call their placement test and I tested into Calculus 2. I was taking business classes with Asians and Whites. And you know all these people (the Asians and Whites) who supposed to have a leg up on me, I was outperforming. So, I don't wanna say like it's an arrogance thing, but I've never felt like I had to prove myself."

This was different for Mr. Reeves, Mr. Lamar, and Mr. Wayne, who felt that they needed to prepare students for assessments so that their students would not have to experience the same struggles and pain they did. Mr. Reeves in an interview stated that his experiences academically and professionally shaped him into the teacher that he is today. He spoke often about how he was inadequately prepared for engineering because his teachers did not provide him with a high-quality mathematics education. Mr. Reeves in the second interview said:

> "…I am a Black man teaching Black students. So, that's significant for me because I do love them. I am a Black man who, like I mentioned, has struggled. So, I'm not some person who has an experience that differs much from many of my students. So, I try to meet them where they are and to bridge that gap."

Those words connected to his previous statement in the same interview regarding his short tenure as an engineer. In reflecting on the end of his career as an engineer because of what he felt was a lack of preparation starting from his high school years he said:

> "I made the decision that it wasn't in my best interest (to continue in the engineering career) as a career to get the satisfaction I knew I wanted. In fact, it was a mutual decision. So it's a very painful period. I'm very pleased you know with how things transpired and to conclude this part partially the way that I teach, and the spirit in which I teach, the passion in which I teach, the patience that I have for students and just the desire to invite students to pursue careers that are technologically based, or engineering based. I feel I can relate to students when they can't understand certain things from an academic standpoint of having frustrations. Looking at the clock over and over again [wondering] if it is time to leave. You know I felt all of these things. None of this was easy to me when I was first introduced to it. None of it. None of it…. the student will be the last reason why they don't understand a topic. My challenges have molded me into the teacher that I am right now."

In that moment we see Mr. Reeves addressing how his experiences shaped and continue to shape his teacher identity and the desire that he has for his students to excel. Mr. Wayne spoke about how the moment when his mother offered prayer for him because of his low-test score shaped his mathematics identity as well.

> "What made me want to be a teacher, a math teacher. Oh, what made me want to be a math teacher because I failed fifth grade math. I remember getting the F and my mom announcing it to the whole church. OH GOD! I remember crying so hard because I got an F. And we went to church, and I mean it's a big church, but they have a time where we say our prayers out loud to the whole church on the microphone. My mom says a couple of things then she says 'Can you all please pray for my son because he just an F in math and I started bawling. Who does that? I'm already in shambles. I can't long divide and now Jesus and the whole church know."

In the words shared by each participant we see a moment of failure in mathematics as proclaimed by some assessment and we see different responses. Mr. Bashir did not let the failure define him whereas Mr. Reeves and Mr. Wayne used the failure as the fuel to draw connections to their students to push through challenges in mathematics. These statements

and experiences by Black male teachers could be analyzed further to study their mathematics experiences prior to becoming teachers. Such investigations could help us understand how they come to negotiate policies and can provide preservice and in-service teachers with case studies to understand how their racialized experiences could shape their negotiation of polices--be investigated further through case studies using CRT. Understanding and making space for Black male teachers to unpack their mathematics student identities will further enable them to understand how these experiences shape their pedagogical stances and beliefs. Doing so enables Black male educators in the field to have conversations where experiences analyzed bear witness to part of their identities instead of having to find themselves in the narratives of others that are far removed from their lived realities. Black male math teachers can look back at the fact that even though they may have been successful in their navigation it cost them something and they are asking their students to pay the same toll. In many teacher education programs teachers and their narratives are void of the context of their identities, meaning conversations are not had regarding how information may or may not connect to the readers. Addressing the pluralistic identities, and therefore experiences, of teachers of mathematics enables for culturally responsive mathematics teacher education programs. This would foster an mathematics education space that would enable to teachers to see how they can teach differently and discovery possible roots of their current beliefs and practices.

McGee (2015) reflects on how Black college students protect their robust mathematics identities through overt and covert actions. While her study analyzed the ways in which Black mathematicians and engineers demonstrated their intelligence, there is not much of analysis into Black male teachers' identities. Black male teachers, as seen through

the interactions with Mr. Lamar, maintain and protect their mathematics identities through their students' high-test scores. Mr. Lamar wanted his students to do well and so that he would be seen as a great teacher of mathematics. This need was challenged, however, by Mr. Bashir, who told Mr. Lamar that no matter student performance on assessments, Mr. Lamar would never be seen or recognized for his work. Meaning that in the system of education in the United States teachers are not valued for their work they are only valued for their products. Mr. Bashir has taught for over ten years and the successes that he has had with students and communities have never been acknowledged whether through compensation, accolades, or awards. He warned Mr. Lamar that, essentially, if his students did extremely well that the district would not be knocking down his door to see what he is doing well and if they did poorly the district will not show up at his door either. His main point was b that the praise and acknowledgement Mr. Lamar wanted would come from the communities they served:

> "I didn't become a teacher to get celebrated by administration or to get celebrated by [the district]. I don't get concerned. I'm not concerned about whether they pat me on the back or tell me I am doing a good job, you know. I'm much more concerned about how the parents feel and the progress that I am seeing in my classroom. I am working with these kids every day. They come in and observe us and you know part of our score is based off if they like you. I've been teaching long enough to know that some of the greatest successes that you will have in the classroom will never be recognized or identified by some standardized test."

A further analysis would be needed to see if Mr. Bashir thought this was because of the systemic nature of education to maintain social classes and racial divisions. Even though Mr. Lamar knew this, or heard this, and even Mr. Wayne, still grappled with embodying a strong sense of self and belief in uplifting the community rather than single-minded focus on assessment results as veteran educators. This study revealed that Black male educators have political knowledge and understand the impacts of their actions philosophically but

do not always have spaces where they can discuss how to use this knowledge to dismantle and disrupt the status quo. Mr. Lamar was grappling with wanting approval from both the community and the district which have, at times, differing values and desires for teachers.

Black Male Teachers Negotiation of Policies

As mentioned earlier, Black male teachers' negotiation of policy is influenced by their identities. Their decisions regarding whether to "suck it up", compromise, or refuse to yield are rooted in their experiences as learners of mathematics but also as teachers. When asked why he does not push back against a system that he sees as negatively impacting his students' identities Mr. Bashir responded:

> "Well, it's a balance. I'm not going to sit up here and try to portray myself as radical just to buck the system at every opportunity that I get. That's not realistic. There are some things that you are just going to have to do."

This is an example of "sucking it up" wherein Mr. Bashir tries to wisely pick his battles to maintain his position within the school --some concessions must be made. He did speak to compromise when he acknowledged that some administrators have given him autonomy to do his own thing if he can justify his reasoning. Mr. Wayne spoke about the line between sucking it up and compromise as he contemplated saviorism for Black male math teachers. In looking at pushing back against the system and self-preservation through not focusing on standardized assessments when teaching Mr. Wayne stated:

> "I'm not about to lose this job. I'm not about to lose this job. I'm not about to put my job in jeopardy. And then I also feel like I won't put them kids test scores in jeopardy because at the end of the day you want me to teach a certain way which I do agree with…The only thing I could change is myself. I can't change Pearson."

In this statement we see the intersectional battle as Mr. Wayne looks at his identity as a teacher, Black male teacher, and Black working-class man. While his teacher-self and Black identity may want to subvert the system at times, being a Black working-class

individual makes him weary of losing his economic standing at the cost of resistance. He went on to describe how he felt as a Black man he was placed in the classroom to model for students the possible rewards for their compliance within the system.

The participants consistently stated that they carried out district or administrator policy to the best of their abilities, while simultaneously cultivating robust mathematics identities in their students using subversive tactics if needed. Black male teachers who are recruited into teaching through schools of education or alternative certification programs must be provided and take opportunities to analyze their mathematics identities to help them in developing political identities. When Black male teachers are drawn or recruited to the profession and their work is rooted in improving the achievement gap, this work of closing the gap becomes a center of their work at the expense of student agency, identity development and view of math as a liberatory tool. Mr. Reeves mentioned in his interviews that he was always teaching as if his students were behind, adding stress to himself and his students, which is rooted in the rhetoric of the achievement gap. While this could be problematic, Mr. Reeves and Mr. Wayne were purposeful and dealt with the tension of interrogating the achievement gap while also assisting students in negotiating of the gap.

Mr. Bashir in conversation with Mr. Lamar spoke about how the achievement gap and its offspring is essentially a numbers game that never adds up. His analysis evokes that of scholars who write about the use of assessments for exclusionary purposes and to perpetuate racial hierarchies (Davis & Martin, 2008; Gutiérrez, 2008; Waitoller & King-Thorius, 2016).

> With them [administration], it's just a numbers game, you know. All they try to do is validate them having the position they have. That's the way, you know. I'm not saying that they are none of my concern, mind you. That's not what I'm saying. But, you know, their job is almost the same as someone

> working in corporate America too, you know. These are the results that they are looking for. These are the numbers that they are looking for. Do what you got to do to get them. And that's basically what they do, you know. They're not necessarily taking it into account. I keep saying variables, but you know all the other things that go into making a student progress to a productive member of our community.

The previous quote and knowledge are clearly rooted in his experience in the business world and seeing clear connections between the business world and the discourse around the achievement gap. As an educator who was once in the world of business, he saw and named the numbers game and how individuals in power maintain their position relying on high proficiency and growth on standardized assessments. While Mr. Lamar and Wayne understood the challenges of assessments on Black male educators they still were inextricably bound to their students' data. Although they both sought different teaching opportunities in various diverse environments, Mr. Reeves and Mr. Bashir were comfortable in their own skin and in their local political state. Mr. Wayne and Mr. Lamar modeled an internalized struggle even when speaking to each other about inequities in assessments and classes while still noting the reality of the lives their students live—they still had to play the numbers game. Mr. Bashir, dealing with similar circumstances, was able identify the purposes of the assessments to essentially maintain the racial hierarchy of mathematics and mathematics education and their inadequacy to fully demonstrate the knowledge or experiences of students. The navigation of the assessment policies was rooted partly in Black male teachers' knowledge of self and life experiences. Like Martin (2007b) analyzed the importance of the intersectional identities of learners of mathematics, the present study draws light to the need for an analysis of the development of Black male teachers' professional identities alongside their math teaching identities throughout their careers.

No Role Modelz: Black Male Mathematical Messiahs

In Mr. Lamar's final conversation with Mr. Wayne, we find him dealing with the challenge of being seen as a role model for Black male mathematics teachers. The challenge is seen throughout most scenes where Mr. Lamar is trying to make sense of and deal with the challenge and pressure of being seen as a role model and living up to others' expectations. Mr. Lamar, in reaching out to Mr. Reeves and Mr. Bashir, shows his struggle with being a good role model, which requires that he assimilate and conform. His desire to teach and rage is rooted in his desire to have his students assimilate as he did, but in doing so he must convince them, and himself, of the lie of meritocracy. He is at odds with his desire to be a messiah or role model while also aiming to be free in a profession and country that seems invested in him being bound as both an object and enforcer of policy. This tension is seen uniquely within Mr. Bashir who identifies the racism within assessments and believes in instructing the whole student, however he still has them engage in policies and practices that he does not believe. To tell his students clearly that the system is set up against them would destroy his position as a role model. His inability to give rousing speeches to get students to believe that they can succeed in a game set up for them to fail. Mr. Reeves, however, in choosing not to attend to biases, finds a unique way to navigate his position as a role model and teacher. Each of these Black men in their role as teachers are in recurring inner conflict as they teach mathematics and negotiate policies. Delgado (1990) wrote that the requirements of being a role model include:

1. The expectations to uplift your entire people.
2. Being treated as an end.
3. You must be an assimilationist and conform to prevailing beliefs.
4. You are expected to do the same things as your White counterparts and help your community when something comes up.

5. You must lie and tell those who follow you that they can be like you if they work hard and stay out of trouble. (pp. 1226-1229)

While Delgado wrote these five requirements in response to affirmative action the same can be applied to Black men mathematics educators. I encourage you as a reader to go back and look within the stories for where these traits and examples of interest convergence appear within the plays.

Black Male Teachers in Nepantla

Gutiérrez (2015) analyzed tensions of t mathematics teachers as they developed political knowledge. She developed the term or idea of *Nepantla* germinated from Anzaldua (1999) work regarding the *third space* or the *borderlands* which addresses individuals navigating spaces between their identities. Anzaldua examines her dissident status as a Mexican woman who is sometimes at war or existing within contradiction of her current beliefs alongside Mexican cultural traditions. This same framework was applied to the experiences of Black people through the work of DuBois on *double consciousness* and the inner war that Black engages in while moving as a Black body through a world centered in their distance from Whiteness. DuBois (1908/2015) wrote:

> It is a peculiar sensation, this double consciousness, this sense of always looking at oneself through the eyes of others, of measuring one's soul by the tape of the world that looks on in amused contempt and pity. (pp. 16-17)

Each of these frameworks (double-consciousness and third space/borderlands) explore the idea of the ability of Black teachers to sit in the tension or space of uncertainty as they teach mathematics. Black male teachers actively enter Nepantla when developing political knowledge and considering ways to teach that enable students the navigate their own Nepantla-- teaching students to perform well on assessments in a country where racism can limit them. This Nepantla, borderlands or double consciousness, is what Gutiérrez (2013b)

refers to when she describes teachers who choose to take a sociopolitical turn. Sitting in this tension and addressing the uncertainty enables mathematics teachers to be vulnerable and name the challenges of becoming mathematics teachers who center liberation in their teaching.

The first tension Gutiérrez (2015) named is *knowing your students and not knowing them*. We see this tension embodied through the work of Mr. Reeves and Mr. Bashir specifically who identify the complexity of the lives of their students outside of the mathematics classroom. Mr. Bashir spoke about how he saw students cooking food for their younger siblings while working on mathematics during COVID. Mr. Reeves spoke about students working part-time or full-time jobs on top of learning mathematics in his classroom. Both men addressed these complexities and the inability of the curriculum to address the lived realities of all students and how this competes with doing well on standardized assessments.

The tension experienced by Mr. Reeves and Mr. Bashir connects to Gutiérrez's (2015) second tension, *being in charge of the classroom and not being in charge of the classroom.* Teachers are not in charge of their classrooms as they are required to standardize their curriculum with other teachers in the school and are left with little room for innovation (Gutierrez, 2015). When I asked Mr. Bashir why he did not try to incorporate culture into his lessons outside of side bar conversations he responded:

> "I mean being totally transparent. My instructional ability is limited to what I know in terms of you know being taught. This is the best way [his current methods and curricular pedagogy]. So, shame on me maybe for not investigating other non-conventional ways of teaching mathematics. But I just don't. I don't have any experience with that. I'm not familiar with those other techniques or histories…I've never seen them in action. I use the method that I'm familiar with."

I noted in this interaction that when Black male math teachers want to subvert or push back against standardized curriculum, they find themselves lacking the training and methods to engage in such teaching practices. Mr. Reeves mentioned several times how he was trying to develop culturally responsive mathematics tasks because he had never learned or observed how to implement the practices in his classroom. It is interesting as well the shame is carried by Mr. Bashir, when its root is within the values and principles of teacher training and development programs. Teacher training and development programs in an age of neoliberalism are focused on a business model centered on producing good data as measured through standardized assessments. Developing culturally responsive tasks and activities for students do not directly align with this purpose because most of the content of these assessments are void of the pluralistic nature of those who are being assessed. Mr. Bashir was ashamed of not knowing how to implement or develop culturally relevant materials but was not trained/taught how to do so because of misalignment with the purpose of teaching in a neoliberal society. The process is unique because instead of understanding that the work is both on the individual and on the programs, in this study we see individuals carrying the shame. This same or process is not unique to alternative certification programs because traditional university programs have similar stances and alignments with neoliberal policies and practices.

That leads to the third tension noted by Gutiérrez which is *teaching mathematics and not teaching mathematics*. This connects to the previous point in the tension between expanded and remembered mathematics is a pancultural phenomenon and does not bind the teaching and learning of mathematics to that which is standardized or assessed. Gutiérrez (2015) advocated that by moving towards a sociopolitical stance/view teachers

can rewrite the narrative in mathematics education to prepare students for democracy. She alerts us that to the danger that the dominate achievement gap discourse will continue to shape teacher practice. In analyzing and presenting the transformation of Black male teachers towards a sociopolitical stance in their negotiation of policies we can continue this movement towards a participatory democracy. Documenting and sharing my participants narratives as cases using CRT enables the centering of the racialized and political experiences of teachers and how Black teacher are sometimes entangled in an inner battle. Mr. Wayne in his final interview reflecting on the tensions said:

> "The first couple of interviews made me rethink a lot of stuff to like what I'm not. What am I putting out there, because, you know, like I can easily sit here and be like, you know, I'm doing the right thing. But I can think back to shit. Shit don't got to be this difficult. It doesn't have to be this way. And I keep saying that because I think it's a big disconnect between our White counterparts. We missed something. There was a disconnect because remember I told you I could feel like I could flip. Either I am going to have good test scores or bad ratings or good ratings and bad test scores. Some White people have mastered how to get both, and I'll be sitting there like, how? What did we miss? Why can't we get it? Why can't we have it all?"

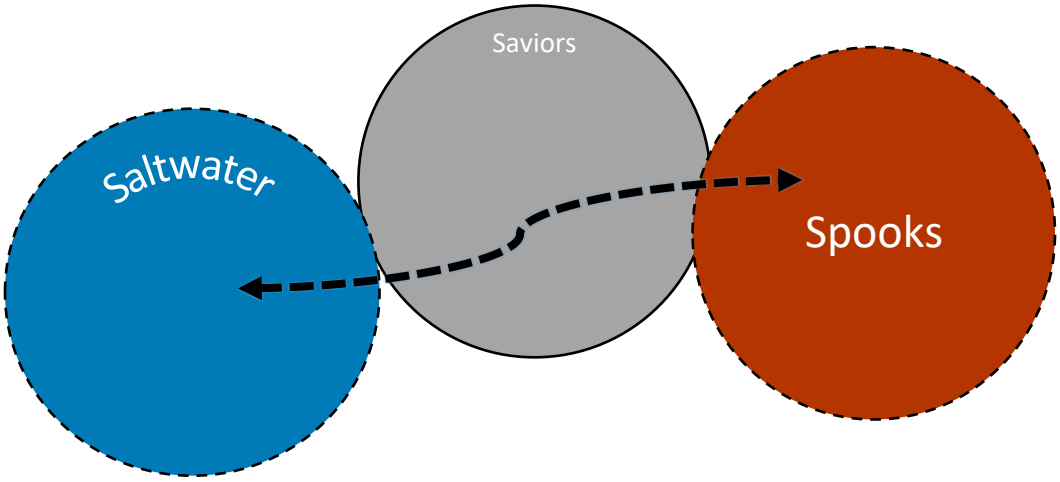
This tension and challenges faced by Mr. Wayne and other Black math educators and educators making the sociopolitical turn is brought to light by the current study and has much more to be investigated and narrated. Through analyzing and centering these experiences, teachers making the social political turn can negotiate policy and feel as though they have all that they need to successful beyond assessment results—to make an important impact.

Play Analysis

Each scene within the overall play analyzes critical moments that became evident through the interview process. When interviewing participants, analyzing the transcripts of the interviews, and composing a playscript I noticed moments or statements that made each

individual participant unique. In this section I delve into each scene and reveal the beauty and complexity that is revealed through the dialogue between the characters and how each scene is situated within the larger play. The play is entitled *Spooks, Saviors, and Saltwater* because within the play each of these identities are negotiated by the characters within the play (See Figure 5). The figure shows the constant motion between one identity to the next that Black male math teachers are constantly negotiating never staying in one position for prolonged periods of time.

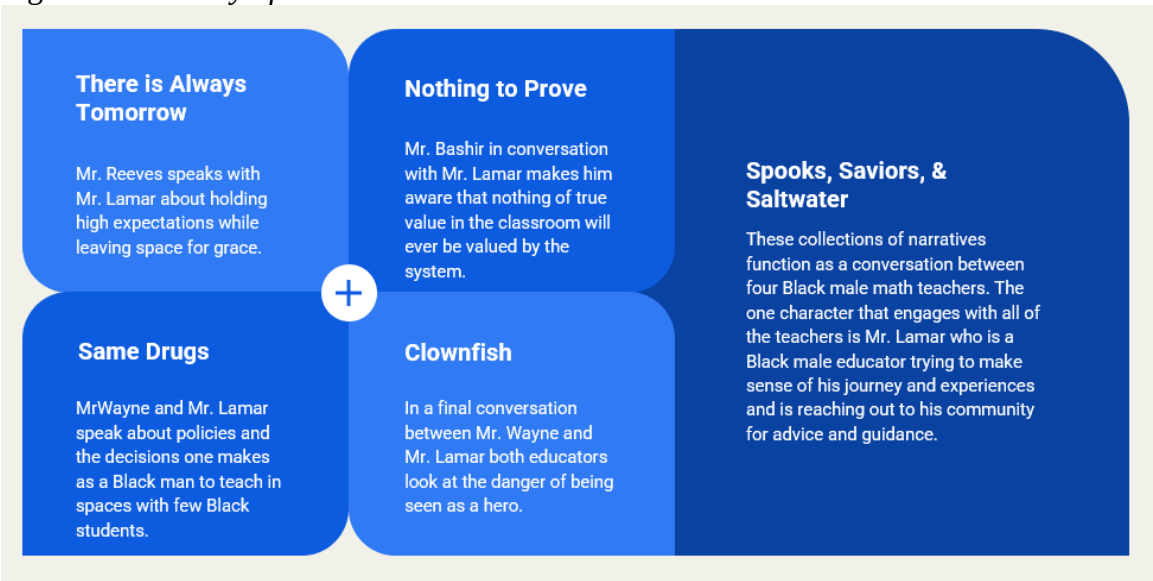
Figure 5. *Negotiated Identities Within Spooks, Saviors, and Saltwater*



The *spook* represents the individual Black male mathematics teacher who is aiming to subversively work within the system to learn how to dismantle, disrupt, or destroy the system by working within the system like a spy or secret operative. The *savior* represents the Black male math teacher who had been drawn into mathematics education because of the savior myth that surrounds Black male bodies in education particularly within urban mathematics education. The *saltwater* represents the Black male math teacher who is existing in the third space of urban mathematics teaching of working within the battle against the achievement gap/gap gazing and doing the work of liberatory mathematics

education. Each scene exists around, within, and between these three spaces and draws and centers tenets of CRT. See Figure 6 for the summary of the counter-narratives.

Figure 6. *Summary of Counter-narratives*



There is Always Tomorrow

In this scene we have Mr. Reeves, in conversation with Mr. Lamar, trying to make sense of the performance of his students on an assessment. Mr. Lamar spent most of the academic year preparing his students to pass a standardized assessment of their mathematical knowledge and was frustrated with their results. His work with the students is rooted and centered in his own racialized experiences as a student. When working with his students he informed them his past struggles with mathematical concepts and how he essentially did not have a teacher like himself to prepare him for the cruel world that awaited them. In this moment we see the complex development of sociopolitical discourses of both Mr. Reeves and Mr. Lamar who while they are critical of the system their criticality resides in their desire to still be successful within the system despite its racist foundations. Their conversation does not center on dismantling the inequitable practice of standardized

testing or in developing moments of disruption, but rather to further seek out ways to succeed within the system.

The conflict and tension present in this scene is the tenet of interest convergence in the work of Black male mathematics teachers in serving the needs and interests of Whites. This is seen in the scene when Mr. Lamar and Reeves both aspire to become Black teachers to be the role models that they did not have while in school and yet they still sustain a racist system. The racist system aligns with the interests of Whites who seek to maintain the rhetoric of the achievement gap, which is maintained when Black male teachers hold on to the belief and desire to push their students to succeed and perform well on assessments that value certain mathematical ways of being without examining the system in which it exists. There is tension however as Black male teachers, as we see in later scenes with other teachers, they must have students to perform well on assessments if they desire to maintain their position within schools and mathematics classrooms. This idea is expanded in a later scene in which Mr. Lamar is resisting the idea that his student performance is attached to his identity as a successful teacher of mathematics.

In the closing moments of the phone call within the scene, we see Mr. Reeves speak about how he works to build positive experiences for students in his mathematics class to undo some of the negative experiences they have had previously. He encourages Mr. Lamar that there is always tomorrow, meaning that if students fall short on assessments they will have future chances to be successful. He wants students to know that their performance does not make him love them less. Oddly enough, this idea rooted in tomorrow is grounded in their perseverance and assimilation in a form of mathematical knowledge that may be foreign to them now, but necessary to negotiate STEM college majors and careers. The

scene leaves us with the tension of potentially judging Mr. Reeves and Lamar for acquiescing to the system by not encouraging students or themselves to rebel through instructional practices. It exposes the truth in Mr. Reeves statement that "…this career is more complex than that…", and that teachers live complex lives and battle between preparing students for the world that is and for the world that could become.

Nothing to Prove

In this scene, Mr. Lamar calls Mr. Bashir and they engage in a conversation about his need to prove himself through student's performance on assessments. This is a expansion on his conversation with Mr. Reeves with a different Black male math teacher—one whose identity was informed by both education and civil rights from his parents. The scene presents an interesting intersection and revelation about Mr. Lamar who works in a school that serves predominantly White families and as a Black male this positions his work and teaching differently through his racialized experiences. While he talks to Mr. Bashir about his data and the responsibility of a Black male mathematics educator to do more than provide phenomenal assessment data, Mr. Bashir shares his own current negotiation of policy impacting his instruction. It is interesting, foremostly, because while they both experienced micromanaging of their teaching, they both negotiated and made meaning of their experiences differently based on their historical experiences and current context.

Mr. Bashir is invested in the idea of teaching the whole child and not focusing exclusively on biased assessment data because of his experiences as a student. He did not fare well on assessments, but he never let this define his mathematical ability and sense of self which enabled him to divest from the racist ideology of the racial hierarchy of

mathematical ability (Martin, 2019). He was more concerned with the words, value, and insights of the families he served which coincided with his own ethnic identity. Mr. Lamar had a different experience because the values of his district and those of many of the multiethnic families he worked with were aligned. Meaning, for Mr. Lamar, that to do well in the perceived racial hierarchy of math teaching ability he needed to have students perform well. This is seen in conversations with Mr. Reeves in which both participants discuss the extra preparation they do prove their worthiness to teach the content. While Mr. Bashir believed that he had nothing to prove, Mr. Lamar and Reeves sought to prove their excellence.

The need to prove themselves is rooted in their partial investment in ideas about the achievement gap which influenced their beliefs about students and themselves. These ideas in this scene show how the ideology of White supremacy presents itself in the bodies and actions of Black male educators because of the double bind they find themselves in. While analyzing and looking at this critical moment of needing to prove oneself as a Black male mathematics teacher, I pondered and sat with Banneker's letters to Thomas Jefferson (Banneker, 1971). In the letters to Jefferson, Banneker hopes that his calculations (mathematical ability) will serve as proof of his humanity and intellect, as well as those of those who were still enslaved. The need to prove himself using both religious and mathematical knowledge to those who could advocate for his cause is not too dissimilar to the work and ideology of Mr. Reeves and Mr. Lamar. Within their desire and work toward their students success on assessments was the desire to prove that there was no racial hierarchy or that they themselves and students with similar identities can succeed in a crooked system. The challenge is that in doing so they end up strengthening the very system

they might seek to destroy/dismantle/disrupt and failing to grapple with interest convergence. This scene along with others further shows the complexity of the political identities of Black male math teachers who are torn between belief in their excellence and the excellence of their students and the discourse around the achievement gap.

Same Drugs and Clownfish

In these two scenes we have Mr. Lamar catching up with a colleague from college, Mr. Wayne, about their decisions to teach mathematics in specific communities after graduation. Same Drugs purposefully begins with the colleague critiquing Mr. Lamar's current position as a teacher of mathematics in a school that serves White families. This scene was probably the most challenging to compose to authentically portray the complexity of the discourse around the achievement gap partnered with a Black male teacher's need to prove himself using data influences the communities he seeks to teach within. In the narratives previously laid out with Mr. Reeves and Mr. Bashir we see Black male teachers engaging in the Banneker mission of demonstrating students' mathematical ability to prove that the students and their teachers are brilliant (swimming in saltwater). Some Black male math teachers abiding within the system encourage students do not invest into ideas that the assessments may place upon their bodies.

In these scenes we have Black male math teachers grappling with saviorism. As they grapple with saviorism, Mr. Lamar and Mr. Wayne discover that though they sought to be mathematical saviors the only aspects of their saviorism that was called upon was to be disciplinarians. Throughout many of the interviews the participants spoke about how their mathematical knowledge was never centered as valuable if they did not also wield the power to discipline students. This work becomes complex as Black male math teachers

enter White spaces and are then called upon to be tools of inter- or intra-segregation through enabling the marginalized students to have a teacher who looks like and can relate to them while White students are given access to more opportunities.

Mr. Wayne and Mr. Lamar grapple with the idea that all students benefit from Black teachers, and it is not the sole responsibility of Black teachers to serve within Black communities. Mr. Wayne speak about the lowered expectations and policies that he believes condition students' failure in the world of education. There is also a duality in being Black men or former Black boys seen as the solution to Black boy problems in math learning spaces. Mr. Lamar speaks about the racialized experiences of Black teachers in spaces focused on testing leading teachers to be complicit in test preparation over of creativity and collaboration. Once again, the two educators find themselves in the space of betweenness trying to determine how to balance or split oneself in half to survive within spaces that are not welcoming to their bodies and desires to imagine new mathematics teaching and learning practices.

Complex Conclusions

In the analysis and gathering of the conversations, I sought to align them to the framework of negotiation laid out by Stinson (2013) of "sucking it up, compromising, or refusing to yield" (p. 74). In my search not only did I hope that the participants would have identities that fit within the categories neatly and selfishly that an individual would model refusal to yield or revolutionary actions, but I found neither. The participants demonstrated that their identities and negotiation of policies are much more complex than merely the three laid out by Stinson and rather exist as complex intersectional forms of negotiation.

This aim for categorization was once taken up by Martin (2007a) through a binary categorization of missionaries and cannibals. This work of seeking categorizations serves as a great position for beginning an analysis but realizing that identities function, develop, and grow as complex mycelium and not as simply as other organisms might. In each of the scenes you notice the complexity of each participant or character who does not fit neatly into a box but exists within multiple boxes as well as in-between some boxes—negotiating the seen and unseen. Missing from the present study is consideration of teachers as laborers in a capitalist society. Future studies of teacher negotiations of policy will have to address the complexities of the identities of laborers in a capitalist society with neoliberal policies impacting the decision making of educators with intersectional identities.

CHAPTER 6 –CONCLUSION

The main purpose of this study was to present the lived experiences of Black male mathematics teachers in their negotiation of education policies in mathematics teaching and learning in US schools. It sought to understand how educators negotiated these policies in mathematics education as theorized by Stinson (2013) who defined negotiation as, "sucking it up, compromising, or refusing to yield" (p. 74). Every aspect of this study was guided by CRT and incorporates its tenets.

CRT asserts that race and racism are endemic and permanent in American society which is central to this entire study. Not only do my experiences as a Black male mathematics educator in the United States bear witness to this reality, but it was evident in my participants words and experiences. The study addressed particularly race and the endemic nature of racism within American schooling practices, particularly within mathematics and the impacts on Black teachers' identities and their students' math learning. Second, by focusing on race as prevalent within the participants stories of negotiating policies, dominant notions of objectivity in educational policies were challenged. Third, the research shed light on larger issues of justice within society because schools are microcosms of society at large and how race functions within the development of laws, policies, and practices. Fourth, the study relies on the exploration and validation of the experiences of Black people in schools. Their stories and experiences as presented in the counter-narrative, hopefully, remain with readers beyond the last words of this concluding chapter. Finally, to enhance the analysis of educators' experiences teaching mathematics I incorporated scholarship from critical mathematics education researchers to enhance our

understanding of how the effects of racism on Black students impacts their Black teaching identities.

Limitations of Study

This study had four main limitations. The first main limitation was the small sample size, working with three Black male educators and analyzing their experiences alongside my own warranted for a surface level analysis. Provided more time and resources a deeper study could have been engaged in that enabled more in-depth analysis of the individuals selected through ethnographic methods. Additionally, with the small population of Black male mathematics teachers it was challenging within the time of the study to locate and interview participants. The second limitation was the participants and my own identity and work as a classroom teacher. This limitation made engaging in the study challenging because of the complexity of meeting with teachers amidst their busy schedules and the holiness of their time outside of the classroom. Two of my participants are fathers, along with myself, and another is a grandfather which makes time shared to interview particularly important. A part of teacher identity comes from the content that is taught since there are varying political dimensions to teaching certain grade levels, especially in the vein of tracking practices in mathematics education. Teachers at middle school and high school mathematics engage in different political decisions than teachers of elementary mathematics (K-5). Within this study the participants taught a variety of grades which made beliefs and stories vary depending upon the grade level. Future iterations of this study would benefit from analyzing the experiences of Black male teachers of certain grade bands to look at particular political aspects of their teaching. The third limitation was that not much research has been done regarding Black male teacher identities and therefore much

of my study was built on theorizing based on the literature of Black identities in mathematics as students. The fourth limitation was the Seidman protocol which limited the depth and breadth of the study because of the phenomenological focus on policy and participants definitions of policy. Analyzing the experiences of participants in relation to policy mean that many of my questions were centered on their developing political identities and could not spend too much time questioning other identities. The study could have drawn more insight and more detailed scenes and character analysis if there was an ethnographic element to the study for all participants which would have enabled me to the see them in multiple contexts to further develop their voices and grow in deeper understanding of their pedagogies. An ethnographic approach would have enabled me to also see how their political identities and navigation shaped their other identities. These limitations open an avenue for future studies to address and circumvent these limitations to provide a more intricate study and analysis.

Further Research

This dissertation study has served as an entry point into presenting the stories and experiences of four Black male mathematics teachers and their experiences negotiating policy and teaching mathematics. Through their interviews we have gained access to a new viewpoint that addresses their experiences which may differ from our previous conceptions of what it means to be a teacher of mathematics and identify as a Black male. However, even within these interviews there were more nuances and narratives that could have been explored that could have contextualized their negotiation of policies further, especially regarding the intersection with racism. Briefly, I offer some future pathways for research and my own pending research agenda alongside my thoughts on limitations of this study.

Research Recommendations

The first pathway for future research would be to disaggregate Black male teachers and their experiences regarding the demographics of their students and how this influences their negotiation of policy. For example, examinations comparing how a Black male mathematics teacher of Black students differs from one who teaches mostly White or Latinx students. These varying experiences are missing and rooted in the work of providing Black teachers to Black students without fully analyzing the impact that Black teachers have on students and communities of various cultural backgrounds. Additionally, the types of schools where Black educators teach mathematics should be considered. The experiences of a private school mathematics education may differ from that of a neighborhood school. Until these stories' complexities are told and analyzed, our understanding of Black mathematics educators' experiences remain incomplete.

Second, I want to develop a research tool to analyze Black math teacher identity development across time like McGee (2013) did for college students. Looking at how Black math teacher identities develop and are present within their pedagogical decisions would be beneficial for schools of education. Much of what is known about identity and pedagogical decisions center the experiences of White women and their ability to negotiate spaces as White women, but the same work is not offered to Black teachers. Analyzing what Black teachers have heard about and embodied discourse around the achievement gap and ways to disrupt those beliefs is needed. Which leads to the final aim in my research which looks at the forces that shape Black male mathematics teachers political decision making.

Hayes et al. (2014) wrote about the influence and impact that his father had on his teaching practices and beliefs, and I noticed some of some of that same theme echoed by my participants. The role that Mr. Reeves' late grandfather played in shaping his teaching style and methods was profound and unique. Mr. Wayne's grandfather and mother also had great influence on his method. Further, the impact Mr. Bashir's mother, father, and grandfather had his teaching activism is a point of interest to me in how Black men teach mathematics and move towards a sociopolitical turn in mathematics education. Analyzing their narratives alongside the narratives of other Black male mathematics teachers to see those non-traditional teachers who have shaped and continue to shape their teaching pedagogy, including their political negotiations is needed. I would aim to work with scholars and researchers such as Hayes to investigate similarities in these negotiations between Black male math and science teachers in the United States. These studies would have the aim of developing case studies to use with teachers like Emdin's (2024) work and contrast with White educators.

Reflection on My Research

At the time of this writing, I am in my tenth year as a math educator currently serving as a mathematics instructional coach for an elementary school and a teacher of Algebra I. This position is quite unique as now I am coaching and guiding individuals through their journeys as they decide whether to make the sociopolitical turn or to continue their current teaching path. As I continue to grow in my practice and work in various communities teaching and learning mathematics my viewpoint and sociopolitical turn/stance grows in complexity. As a practicing instructional coach part of my position calls for me to assist teachers in preparing their students for standardized assessments and

to help decide whether a student should be in Algebra I or remain in eighth grade math. In my hybrid position as both coach and teacher, I find myself in the Nepantla (saltwater), double consciousness or borderlands that I referred to as I strive to engage in my practice in ways that move towards liberation. At the same time, working with math teachers and helping them develop and cultivate their political knowledge is challenging since many teachers still live and teach in spaces that value the rhetoric around the achievement gap. This study provided me with resources and greater understanding of the work needed to support in-service and preservice teachers in encouraging them to take a sociopolitical turn in a system that rewards avoiding such a turn.

At the beginning of the study, I could not see the tensions of teaching mathematics with a sociopolitical stance and how my identities and experiences shaped my political stances. The study helped me to realize how teachers, me included, navigate the tensions in various ways and the moments of interest convergence of trying to give students access to the benefits of a corrupt system and have them disrupt and dismantle that same system. The work of mathematics teachers who have taken the sociopolitical turn is like that of spooks who teach their students how to use mathematics in fugitive ways for liberation. The teachers, however, must learn the ways of the system then transform their instruction to not have students get lost in the power of an inequitable mathematics education. This development of political knowledge comes at different costs for different teachers because of the racialization of individuals in the United States, as seen in the study. The act of being a "radical" has costs.

Engaging in this study as a teacher-researcher enabled me to see further through the lenses of my participants. Their interviews revealed to me the intentions of their political

stances and decisions and how they were enacted within their classrooms. Mr. Wayne spoke clearly about his truth and sociopolitical turn that was reversed because his students were not performing well on assessments that impacted his evaluation. This then prompted a reexamination of the discourse of the achievement gap and his proclamation that he was not about to lose his money or economic position by taking a radical stance (borrowing the term radical from Mr. Bashir's statement). This study revealed to me the importance of seeing teachers as political actors and not objects of policy--to see how their pedagogical decisions are influenced and developed by their past. I am interested in looking at Black male teachers, coaches, and STEM district leaders in Pre-K – 8 and how they negotiate educating, advocating, and being in community with young Black boys and teens. This work will blossom into analyzing and developing curricular practices and education policies that not only support and address the concerns of Black boys but Black male teachers as well.

Concluding Thoughts

Just hold on to your brother when his faith lost ~ Pusha T

Solórzano and Yosso (2002) discussed how individuals and groups who have been marginalized and oppressed become empowered by hearing their own stories and the stories of others. I hope that this study serves that very purpose and that other teachers who identify as Black men will be empowered and encouraged to share their experiences in classroom contexts. In analyzing and listening to the experiences of my participants there were many times where these men opened to me about the challenges that they face on a daily basis and how during the study they began to reflect and think more deeply about their racialized experiences while teaching mathematics. I hope that their stories encourage

a deeper look at the practices of testing and enable policymakers to look at the impact that assessments and testing anxiety have on teachers and how they provide support for their students social, emotional, and mathematical well-being. The same can be said for how the teachers hold space for each other while navigating a space that is inhospitable to their identities along with their students.

Many schools of education and alternative certification programs focus their work on the labor/work of teaching divorced from the political implications of the career. With most of the teaching population identifying as White women, many current educators grapple with the political implications of teaching mathematics differently than Black educators who have experienced classrooms differently. This study should serve as a catalyst to engage in further analysis of how to support teachers who work on the ground when it comes to enforcing, interpreting, and dismantling policies rooted in racism and racial hierarchies. This means seeing teachers as political actors and not as objects of policies who merely carry out or enact policies passed down to them from those outside of the classroom. In analyzing their political identities researchers will have to consider and address how these identities are developed, cultivated, and sustained in various political ecosystems.

APPENDICES

Appendix A. Participant Email Invitation

Subject: Recruitment for Dissertation Research Study on K-12 Black Male Mathematics Educators

Dear [Intended Participant Name],

I am emailing you to invite you to be part of my research project about how Black male educators negotiate education policies in their mathematics teaching. The purpose of the research is to describe the experiences of Black men as they navigate exclusionary policies while teaching mathematics to their students. The study analyzes the experiences unique to Black men to add our collective experiences, both racialized and gendered, to the ever-growing body of work on the experiences of Black educators in the United States. If you participate in my project, you will participate in three interviews via Zoom. It will take you 3-4 hours to participate in the research.

This dissertation study is a part of my requirements to receive my doctoral degree in Urban Education Studies at Indiana University Indianapolis. To be eligible to participate in this study you must self-identify as a Black man and be a teacher of mathematics to students in grades kindergarten through twelfth grade.

Participation is voluntary, but I would be honored to have you and your stories as a part of this research study!

If you respond confirming your desire to participate in the study, I will follow up with an email setting up our first interview through a Calendly link,

For more information, or to sign up, please respond committing to this study to this email (xxxx@xxx.edu) and if you have more questions, you may contact me via phone/text (xxx)xxx-xxxx.

Thanks,

Evan M. Taylor

Appendix B. Semi-Structured Interview Questions

INTERVIEW ONE (45-60 minutes) -- *BACKGROUND*

1. What has been your relationship with mathematics?
2. Why did you choose to teach mathematics?
    a. Did being a Black male factor into your decision? (Saviorism/Employability/Community Connection)
    b. What have been the demographics of schools where you have taught mathematics?
3. **Describe your mathematics teaching journey.**
4. *Describe your mathematics teaching philosophy.*
    a. *Purposes and learning goals for students in mathematics.*
    b. *Your teaching methods.*
    c. *Methods for assessing students' learning.*

INTERVIEW TWO (45-60 minutes) -- Black Male Math Teacher Experience (BMMTE)

5. ***What do you believe is your role and responsibility as a mathematics educator?***
    a. Have your beliefs about this changed over time? If so, what caused the change?
    b. How do you go about accomplishing that goal?
    c. How much of your responsibility coincides with preparing students to perform well on standardized assessments?
    d. How do class and race impact your responsibilities?
6. ***What role do politics or policy play in your responsibilities as a mathematics educator?***
7. ***What are potential tensions created by policies and politics? Give examples.***
8. ***How does your identity as a Black male influence your negotiation of policies?***
    a. Do any of your other identities influence your negotiation of policies? (father, son, Christian, successful mathematician, etc.)
    b. Do you feel that if your students do not perform well on assessments, it will reflect your teaching or ability to teach?
    c. Do you believe that your students' performance on assessments has limited opportunities for you as a teacher of mathematics?
    d. ***Do you think student performance impacts others' perception of students, yourself, or both?***
9. ***Do you consider yourself a successful teacher of mathematics?***
    a. What makes you consider yourself a successful teacher of mathematics?
        i. Data? Evaluations? Word of mouth?
    b. Have you ever doubted your effectiveness as a mathematics teacher?
        i. What caused the doubt? Test scores/assessment data?

INTERVIEW THREE (45-60 minutes) -- BOUND/TETHERED

10. ***How does student performance impact your identity?***
    a. Math identity? Math teacher identity? Personal identity? Racial? Gender?
    b. Does student performance influence your practices of academic exclusion when it comes to mathematics courses? (Gateway vs Gatekeeper) (Achievement- vs. Experience-based)
    c. How do you negotiate tracking in student culture who may have placement or access to advanced mathematics courses? (Talented Tenth)
11. ***Do you believe that you have different expectations placed upon your teaching style and beliefs because of your racial and gender identities?***

    a. Is there a sense of Saviorism, meaning that you are expected to single-handedly develop equitable mathematics teaching and learning practices?
    b. Are you given a unique responsibility of increasing the presence and possibility of students of color in advanced mathematics courses?
    c. How do you cope with students of color failing your courses?
12. ***Do your students share the same values as you on their performance and achievement in mathematics?***
13. ***Do you feel that curricular creativity is impacted by student performance?***
    a. Have you made instructionally or pedagogically for success on standardized assessments?
    b. Do you feel that you must teach in a certain way at times to give some students access to STEM (Science, Technology, Engineering, and Mathematics) fields?

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CURRICULUM VITAE

Evan Marquise Taylor

Education

2019 - 2025 **PhD, Urban Education Studies**, Minor Education Law, Policy and Advocacy
Dissertation Title:
Spooks, Saviors, And Saltwater: Counternarratives of Black Male Math Teacher
Indiana University - Indianapolis
Indianapolis, IN

2016 - 2018 **M.Ed, Literacy, Language and Learning**, University of Illinois at Chicago
Chicago, IL

2010 - 2015 **Bachelor of Arts in Urban Education**, University of Illinois at Chicago
Magna Cum Laude
Chicago, IL

Research interests: Black mathematics K-8 teaching and learning experiences; mathematics education policy; ethnomathematics; culturally relevant mathematics teaching; mathematical communities of practice; action research: critical race theory

Professional Appointments

2019 - Present **Middle School Mathematics Teacher,** Indianapolis Public Schools

- Teaching 6-8 mathematics, including Algebra I
- Developing culturally relevant intervention focused on developing numerate citizens
- Developing and implementing equitable and problem-posing mathematics curriculum

2020 - Present **Adjunct Professor,** Indianapolis University-Indianapolis

- Taught literacy and mathematics methods course to preservice early childhood, elementary and secondary educators
- Focus on culturally relevant pedagogy, culturally responsive mathematics teaching, mathematical tasks and universal design for learning
- Developed course materials and syllabus for instruction

2020 – 2021 **District Mathematics Coach,** Indianapolis Public Schools

- Supporting K-8 mathematics teachers and mathematics coaches in the district

- Providing professional development on culturally sustaining and universally designed mathematics instruction
- Working with District Racial Equity Team

2019 – 2020 **Instructional Coach and Algebra I Teacher,** Daniel Webster 346 Elementary School
- Developed mathematics rubrics and assessments aligned with curriculum
- Coaching teachers to be more equitable and socially just in mathematics instruction
- Developing Algebra I for Social Justice

2018 - 2019 **Mathematics/Science Teacher (3-4)**, George Buck 94 Elementary School, July 2018 - June 2019
- Developed mathematics and science teaching model focused on literacy of content areas
- Scaffolded instruction for ELLs
- Collaborated with instructional team regarding curricular decisions for students
- Developed integrated mathematics and science lessons

2016 - 2018 **Director-At Large,** Illinois Council of Teachers of Mathematics, May 2016 -May 2018
- Working with mathematics educators across the state in making decisions in regard to mathematics education in Illinois
- Speaking to issues of equity in mathematics education

Licensure/Certification
Indiana Professional Teaching License
Endorsement: **Elementary Education** and **Middle School Mathematics (5-9)**

Fellowships
SURGE Leadership Academy (2021 Alumni)

Presentations
"Streetball As a Context for Mathematics Learning Among African-American Males". Workshop presented at the 65th Annual Western Illinois University Mathematics Teachers' Conference. (April 8, 2016)

"Power to the People: Social Justice in Writing". Served on panel at the ChiTeen Lit Festival. (April 16, 2016)

"Teaching Black Students Mathematics Using Black Culture". Presented at the Illinois Council of Teachers of Mathematics Conference in Peoria, IL. (October 7-8, 2016)

"In Search of Justice in the Social". Presented at the Teachers for Social Justice Curriculum Fair. (November 19, 2016)

"Teachers as Researchers: Navigating the Challenges and Conundrums of Culturally Sustaining Pedagogies to Cultivate Opportunities". NCTE 2018

"*Hip Hop Teaching: Strategies and Assessments"*. NCTE 2018

"Some rap songs: Implementing Hip Hop Into Elementary Literacy Classrooms". University of Illinois at Chicago Super Saturday Literacy Sessions 2019

"Engaging the Radical Primary Imagination: Using Hip Hop Lyrics As Enabling Texts in Primary Classrooms". University of Illinois at Chicago Super Saturday Literacy Sessions 2020

"Morrison, Moses & Mathematics: A Critical Examination of Black K-12 Mathematics Education in the U.S.". The Center for Africana Studies & Culture Presents Emerging Africana Scholar Speaker Series, IUPUI Center for Africana Studies & Culture: September 20, 2021

"It Takes a Village: The Power of Authentic Partnerships". Benjamin Banneker Association Virtual Mini-Conference, October 30, 2021 [Panelist]

Publications

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Taylor, K. M., Taylor, E. M., Hartman, P., Woodard, R., Vaughan, A., Coppola, R., Rocha, D. J., & Machado, E. (2019). Expanding repertoires of resistance. *English Teaching: Practice & Critique, 18*(2), 188-203. https://doi.org/10.1108/ETPC-11-2018-0114

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Taylor, E. M., Morton, C. H., & Williams, I. (2024). The Black girl gaze in middle level mathematics spaces. In *Critical Race Theory and Classroom Practice* (pp. 116-126). Routledge.

University Teaching Experience

Term	Course#	Course Name	University-School	# Students (Delivery)
SUM2024	E449/559	*Trade Books & the Classroom Teacher*	IUPUI-School of Educ	(Web-Based)
SUM2024	N517	*Advanced Study in the Teaching of Secondary School Mathematics*	IUPUI-School of Educ	(Web-Based)
SP2024	M457	*Methods of Teaching Secondary & Middle School Mathematics*	IUPUI-School of Educ	
SP2024	N517	*Advanced Study in the Teaching of Secondary School Mathematics*	IUPUI-School of Educ	
SP2024	L500	*Instructional Issues in Language Learning*	IUPUI-School of Educ	(Web-Based)
FA2023	E555	*Human Diversity in Education*	IUPUI-School of Educ	18 (Hybrid)
FA2023	N102	*Teaching & Learning Elementary Math I*	IUPUI-School of Educ	12 (Hybrid)
SP2023	N102	*Teaching & Learning Elementary Math I*	IUPUI-School of Educ	30 (Web-Based)
SP2023	M457	*Methods of Teaching Secondary & Middle School Mathematics*	IUPUI-School of Educ	6 students
FA2022	N102	*Teaching & Learning Elementary Math I*	IUPUI-School of Educ	14 (Hybrid)
SP2022	N517	*Advanced Study in the Teaching of Secondary School Mathematics*	IUPUI-School of Educ	12

Term	Course#	Course Name	University-School	# Students (Delivery)
SUM2022	N102	*Teaching & Learning Elementary Math I*	IUPUI-School of Educ	(Web-Based)
SP2022	N102	*Teaching & Learning Elementary Math I*	IUPUI-School of Educ	28 (Web-Based)
FA2021	N102	*Teaching & Learning Elementary Math I*	IUPUI-School of Educ	27 (Web-Based)
SP2021	M457	*Methods of Teaching Secondary & Middle School Mathematics*	IUPUI-School of Educ	12
SP2021	E340	*Methods of Teaching Reading I*	IUPUI-School of Educ	10 students
FA2020	E340	*Methods of Teaching Reading I*	IUPUI-School of Educ	8 students
SP2020	E340	*Methods of Teaching Reading I*	IUPUI-School of Educ	12 students

Awards

- *2021 IUPUI Emerging Africana Scholar*

Reviewer for Journals

- International Journal of Qualitative Studies in Education (Spring 2020)
- Mathematics Teacher: Learning and Teaching Pre-K - 12 (Ongoing)

Professional Affiliations

- National Council of Teachers of Mathematics (NCTM)
- Indiana Council of Teachers of Mathematics (ICTM)
- Benjamin Banneker Association (BBA)
- Association of Mathematics Teacher Educators (AMTE)