

Original Research Article

Kinship, Community, and Counternarratives: An Autoethnography of Blackness and Mathematics in Rural America

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ABSTRACT: This autoethnographic study examines the intersections of Blackness, rural identity, and mathematics learning through the lens of critical race theory (CRT) and its tenet of counterstorytelling. Drawing from the author's lived experiences growing up as a Black student in a small, rural Kentucky town and being raised by a single grandparent, this study highlights the unique challenges and opportunities of navigating mathematics education in this context. Through personal narratives, it critiques dominant urban-centered perspectives in mathematics education and explores themes of kinship, community, tokenization, and representation. The findings underscore the cultural and structural barriers Black students face in rural mathematics classrooms, the transformative role of culturally responsive teaching, and the need to expand research on rural educational experiences. This work contributes to broader efforts to humanize mathematics education, challenge inequities, and amplify marginalized voices in academic discourse.

KEYWORDS: *Blackness, rural identity, mathematics, Critical Race Theory, counterstorytelling, equity*

In the heart of Fulton, where the sun spills gold across the fields, a young Black boy roams the quiet streets, his laughter echoing against the warm clapboard houses. Fulton, with its one stoplight blinking like a watchful eye, cradles a tapestry of stories woven into the fabric of its small-knit community, where every face is familiar, and every name is a thread in a shared history. He finds solace in the creaking wooden floors of his five-generation home, where the whispers of ancestors linger like the sweet scent of magnolia, guiding him with their dreams. Outside, the railroad tracks stretch like a lifeline, glistening in the afternoon sun, telling tales of journeys begun and paths yet to tread. These tracks resonate with the rhythm of passing trains, a heartbeat that stirs the soul, connecting the boy's roots to the broader world beyond. In this sanctuary of nostalgia, where love and resilience flow through each generation, he learns that even in the simplicity of life, there's a profound beauty in belonging, a legacy rich with hope, waiting just down the tracks.

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Growing up in rural Fulton, Kentucky as a Black child was a unique experience. I was raised by my maternal grandmother in our family home which was purchased by my great-grandmother and my great-great grandmother. Fulton was the ideal town to raise a family because it was a town where everyone knew your name. For as long as I can remember, I was always being asked, “Is Bridgette your grandmother” or “Are you a Ferrell?” The idea of kinship and who you were played a critical role in my upbringing. My family had been known around town for at least five generations, if not more. Therefore, many of the people in the small town were kin to me as well. I attended a small, rural school district, with about 400 K-12 classmates. Thus, the nature of that family, community, and school roles were distinctly molded by that rural setting, overlapping and also diverging from what is seen in much of the literature on Urban Blackness (with the former often used as coded language for the latter) by virtue of the small-knit community and school district. I came to understand these nuances not just through academic texts, but through lived experience—overheard conversations in the barber shop, the way people spoke in church, and even how rural Black learners’ stories were (or weren’t) reflected in media.

Narratives and stories allow researchers to share their authentic experiences and bring attention to salient elements thereof. Throughout this manuscript, I will utilize autoethnographic research methods, drawing on scholars such as Boylorn and Orbe (2014), to explore and analyze my experience as a non-Urban Black individual, an identity often treated as an implicit contradiction in dominant mathematics education literature. I will be revisiting my upbringing as a Black rural student learning mathematics while being raised by my grandmother. Through this research, I unpack ways in which this specific intersection of identities poses unique opportunities and tensions. These three forms of identity were in constant conflict with one another as I grew up, paving the way for who I am today.

Autoethnography serves as more than just a methodological choice; it is an intentional act of reflection, healing, and liberation. Rooted in the tradition of storytelling, this approach allows me to trace and interpret my lived experiences as a rural, Black mathematics learner raised by my grandmother. By positioning myself as both researcher and participant, I aim to make visible the often-overlooked narratives that lie at the margins of dominant educational discourses (Boylorn & Orbe, 2014). This method is especially fitting given the ways in which writing, for me, becomes a site of both vulnerability and resistance. It becomes a place to unearth truths, challenge silences, and reimagine the possibilities of Black rural identity in mathematics spaces. Drawing inspiration from scholars like bell hooks (1994), who center personal narrative as theory and praxis, and artists like Toni Morrison and Nikki Giovanni, whose work breathes life into everyday Black experiences, this methodology honors the creative and emotional labor embedded in my storytelling. It also serves as a counter-narrative to deficit-oriented models that pathologize rural Black learners (Ladson-Billings, 1998), instead of celebrating the textured, nuanced, and often contradictory realities that have shaped who I am today.

Additionally, a useful theoretical framework that helps provide an insight into understanding racialized narratives is critical race theory (CRT), especially the tenet of counterstorytelling. Below, I will describe CRT and counterstorytelling, discuss the salience of identity as it relates to this research, and then relay and critically analyze several experiences in which I reminisce about being Black, rural, and raised by a single grandparent while learning mathematics.

Critical Race Theory

Critical race theory (CRT) is the theoretical framework utilized in this research study. According to Donnor and Ladson-Billings (2018), CRT is a transformative theory used primarily in social science and education. This theory can be defined as a theoretical framework that focuses

on the connectedness between race, power, and law as they relate to societal structure. CRT uncovers the relationship between race, racism, and power and questions what is considered liberal order foundations (Delgado & Stefancic, 2017). It can be used to examine and analyze the inequities and injustices ingrained in the policies and procedures of the American education system (Ladson-Billings, 1998).

CRT scholars note it as a movement of people known for their transformative actions as activists and initiators (Delgado & Stefancic, 2017). Topics such as racial issues for people of color, unequal policies and procedures, and educational inequalities fall under this theory. Rather than being a singular “theory,” it may be more accurate to characterize it as an intellectual movement rooted in American jurisprudence scholarship and comprised of a set of theories rather than one (Donnor & Ladson-Billings, 2018).

In recent years, CRT has become a flashpoint in national debates, especially during the resurgence of the Black Lives Matter (BLM) movement. The rhetoric surrounding CRT has been highly politicized, with critics often misrepresenting the framework as an attack on American values rather than a tool for examining systemic inequities. This backlash, rooted in discomfort with confronting institutional racism, has led to legislative efforts in several states to ban the teaching of CRT in schools, even though it is rarely, if ever, taught directly in K–12 settings. As Ladson-Billings (2021) points out in a public lecture, much of the controversy stems from a fundamental misunderstanding of what CRT actually is. Rather than promoting division, CRT challenges dominant narratives and uplifts the voices and histories of marginalized communities, encouraging critical engagement with the world as it is, not as we wish it to be. Crenshaw (2021) further explains that the current mischaracterization of CRT is part of a broader campaign to suppress discussions of race and power in education, effectively silencing the very tools that could empower students to think critically about the structures that shape their lives. This moment highlights the importance of CRT not just as an academic framework, but as a site of resistance and truth-telling in a time of political erasure and historical revisionism.

Like the definition of CRT, the historical context of the term is significant to note. Ladson-Billings (1998) stated that CRT emerged as a counter-legal way to present scholarship for civil rights matters. Counter-legal scholarship comprises as a critique of how the American legal system uses a raceless approach to understanding and analyzing legal court cases (Lac, 2020). CRT was an essential foundation for research methodologies and critical race pedagogy, as Clark (2020) argued it helps address racial inequalities in both research and teaching. Since the 70s and 80s, many scholars have employed CRT as a theoretical framework to address racial inequity issues with language, literacy, and cultural ways (Clark, 2020). CRT situated itself in education in the 1990s due to the scholarship and research of Gloria Ladson-Billings (Anderson, 2022).

Building on this foundation, CRT has been used in the field of education to uncover manifestations of racism, as such inequities are often viewed as normal in American society (Ladson-Billings, 1998). Often in education, CRT research takes form through employing narratives or storytelling to critique white² entitlement and privileges (Ladson-Billings, 1998). Clark (2020) argued that CRT has become a popular framework for understanding racial inequities in teaching and teacher education through the centering of counter-narratives (e.g., students of color sharing their lived experiences in predominantly white classrooms), the examination of structural racism (e.g., tracking systems that disproportionately place Black and Brown students in lower-level courses), and the critique of dominant ideologies (e.g., colorblindness or meritocracy) that

² Given the CRT framework and in recognition of the complex history surrounding the capitalization of “white,” particularly its ties to white supremacy, I have decided not to capitalize the term.

often mask systemic inequities in schools. The component of CRT will emerge throughout this research study is the idea of counterstorytelling.

CRT Situated in Mathematics Education

In recent years, scholars in mathematics education have begun to utilize CRT. Most of the research has been used to understand the experiences of students of color, including Black students, within mathematics education. Berry (2005) explored the success of African American male middle school mathematics students through a critical race theoretical lens. Snipes and Waters (2005) utilized CRT to examine the achievement gap between African American students and their white counterparts in mathematics education. Currently, CRT has two essential purposes in mathematics education: providing students with voices and narratives and examining race issues.

First, CRT can be used in mathematics education as a voice for nondominant populations. Berry (2005) stated that African American males have experienced educational injustices and unfairness, including in the field of mathematics education. Throughout his research, Berry employed CRT to capture the voices of African American middle school male students by allowing them to discuss how they have overcome barriers and limitations throughout their experiences in their mathematics classrooms. According to Berry, CRT allowed for acknowledging and legitimizing the participants' voices. More specifically, Berry's study incorporated the voices of African American students to deconstruct and examine how race and racism influence various structures, processes, and discourses in the field of education. These structures have historically dehumanized Black learners by silencing their experiences and framing their abilities through deficit-based lenses. In contrast, both Berry's work and my own aim to rehumanize these lived experiences by centering the narratives of Black and Brown students within the mathematics classroom, positioning their voices as legitimate sources of knowledge and resistance in a system that has too often rendered them invisible.

Secondly, CRT can be used to examine racial injustices within mathematics education by uncovering how systemic inequities limit access and opportunity for African American students. In North Carolina, Snipes and Waters (2005) conducted a case study exploring the experiences of African American students in public high schools between 1950 and 1980, focusing on their mathematics education during the period between the *Brown v. Board of Education* (1954) decision and the No Child Left Behind Act. Their analysis revealed the presence of institutional and structural racism, particularly tied to inequities in property tax-based school funding and access to educational resources. For example, African American students often received outdated, secondhand textbooks that had been previously used by white students, not only in mathematics but across subject areas. Moreover, predominantly African American schools offered fewer and less advanced mathematics courses, limiting students' access to college-preparatory curricula and reinforcing racial disparities in academic achievement. Snipes and Waters (2005) concluded that these inequities reflected deeper issues of racialized school funding and opportunity, ultimately calling for systemic reform in mathematics education.

Notably, while foundational, much of this CRT-focused mathematics education research is now nearly two decades old. While scholars like Snipes and Berry have contributed to understanding how race and racism shape mathematics learning, there remains a significant gap in the literature when it comes to examining these dynamics within rural contexts and how place influences students' experiences. As Showalter et al. (2023) articulated, rural students, many of whom are students of color, are often left out of both research and policy discussions, despite making up more than 20% of the student population nationwide. By contributing a rural, Black, mathematics learner's narrative through a CRT lens, this research not only extends the scholarly conversation but also addresses a critical void in the literature.

Counterstorytelling and the Voices of Students of Color

Cho (2016) stated that counterstorytelling, informed by critical race theory (CRT), can serve as a medium through which minoritized students unpack racial issues and power relations embedded in their academic learning processes. Critical race scholars argue that it is essential for these students to share their personal stories as a way to challenge dominant societal narratives (Cho, 2016). These personal narratives, referred to as counternarratives, are viewed as valid forms of knowledge and evidence that document inequalities, injustices, and discrimination, thereby confronting dominant ideologies (Cho, 2016; Dixson & Rousseau, 2005). Counterstorytelling can expose, analyze, and challenge widely accepted narratives shaped by the majority or mainstream beliefs (Cho, 2016).

To illustrate how counterstorytelling is applied in educational research, Mapolelo (2009) examined high school students' perspectives on mathematics and the learning process, with particular attention to classroom factors that influenced their engagement. The study employed both qualitative and quantitative methods, using interviews not only as a tool for data collection but as a platform for students to share counter-narratives about their experiences. Notably, the findings revealed that students' disengagement was often tied to feeling unheard or misunderstood by their teachers.

Similarly, Berry (2008) used CRT and counterstorytelling to highlight the lived experiences of eight academically successful African American middle school boys in mathematics. His research examined both their access to advanced math courses and the structural limitations they encountered, positioning their voices as a direct challenge to deficit-oriented narratives about African American males in math education. Five key themes emerged from the study:

1. Students need to have early educational experiences.
2. Students must have their abilities recognized and need help determining how they can achieve goals in mathematics education.
3. Students must have a strong support system.
4. Students must have a strong and positive mathematics and academic identity.
5. Students must have alternate identities in mathematics.

These findings underscore the power of counterstorytelling as a methodological tool. It surfaces often-overlooked perspectives and affirms the identities of Black learners in math classrooms. In doing so, it challenges dominant discourses and advances equity in mathematics education.

Berry et al. (2013) argued that the needs of Black students have always been dismissed. Throughout history, white privilege has been ingrained in American society, which has caused Black students' needs to be dismissed (Berry et al., 2013). Furthermore, Berry and colleagues stated that white privilege had been integrated into areas of education such as the curriculum, teaching, assessment, and learning. White privilege in all aspects of education has caused many issues for Black students (Berry et al., 2013). Black students have not benefited from the policies, procedures, and agendas implemented and created for mathematics education (Berry et al., 2013). Furthermore, Berry and colleagues explored the brilliance of Black children and their experiences in mathematics education through a CRT lens. They mentioned that Black mathematics students thrive contrary to societal beliefs. Berry and colleagues (2013) provided counternarratives to combat what literature stated about Black children and their ability to learn and understand mathematics.

Yet, what remains underexamined in much of the dominant literature is how *place*, specifically rurality, adds another layer of complexity to the marginalization of Black students in mathematics education. CRT provides a powerful framework for naming systemic racism and inequities, but it is often urban-centric in focus. In contrast, rural Black students, like myself, must navigate not

only the racialized structures in education but also the geographic and cultural limitations of being in under-resourced, isolated communities. Gruenewald's (2003) *critical pedagogy of place* encourages scholars to think about how social and ecological landscapes intersect, urging a more nuanced understanding of education that accounts for the power of local context. Within rural environments, issues of access to advanced coursework, exposure to Black educators in STEM fields, and visibility within academic spaces are intensified, demanding that we, as researchers and educators, not only consider race but also place when exploring educational equity.

Crumb et al.'s (2023) *rural cultural wealth framework* further expands on this by emphasizing the assets rural communities possess, such as familial capital, resistance capital, and community ties. These components are often overlooked or undervalued by dominant narratives in education. Applying this framework alongside CRT challenges deficit-based assumptions about rural Black students by highlighting the cultural wealth embedded in their experiences. It also invites a necessary interrogation of how the intersection of race, space, and discipline can silence or distort the brilliance of Black rural learners, especially in mathematics. Scholars like Sheneka Williams, Jamon Flowers, and Darris Means have emphasized the importance of recognizing how race and geography intersect to influence educational opportunity. Their work collectively reminds us that counter-narratives in mathematics education must attend to both systemic racism and spatial injustice to truly reflect the diverse experiences of Black students across the U.S.

Identity

Gee (2000) opened the door for identity work to be conducted in educational research more consistently and concisely. Gee argued that identity is a growing topic of interest for many researchers due to its saliency in understanding schools and society. Furthermore, Gee stated that researchers could use identity as an analytic tool that explores various topics and concepts in schools and society. Additionally, Sfard and Prusak (2005) presented the notion that identity can be used as an analytic tool to investigate learning. Examining research on identity could be recognized as the missing link between students' learning and sociocultural context (Sfard & Prusak, 2005). Furthermore, understanding identity and using it through the lens of narrative allows researchers to view identity as human nature and human action (Sfard & Prusak, 2005).

Utilizing identity in education research through a narrative approach enables researchers the opportunity to work with participants to use identity-building through storytelling (Sfard & Prusak, 2005). This approach is especially powerful when exploring the intersecting identities of individuals (e.g., being rural, Black, and a mathematics learner) because it allows for a more nuanced understanding of how these identities shape educational experiences. My narrative challenges dominant, monolithic portrayals of who engages in mathematics and highlights how these layered identities not only shaped my academic path but also positioned me as both an outsider and a contributor to educational spaces. By centering intersectionality, my story adds to the educational landscape as a counternarrative that disrupts norms and expands the lens through which scholars view Black rural learners and future educators in mathematics (Crenshaw, 1991; Ladson-Billings, 1998). For this autoethnography, I will be providing a narrative of my experience as a mathematics learner, specifically my identity as a rural Black student navigating a predominantly white educational system where my brilliance was often overlooked or misunderstood.

Being Black While Learning Mathematics

The first time I truly remember learning mathematics was in the third grade. The memory is vivid, almost tangible. The third-grade room had a history. As I walked in, the light blue walls, dull

and faded with time, caught my eye, and there was an odd juxtaposition between those walls and the colorful posters that were taped to them. The posters were old too, the corners curling up from years of use, but they were bright and cheerful, filled with tips about reading and basic arithmetic. Even in their worn state, they held a promise of learning. The room itself had a certain warmth that only old classrooms seem to possess, with cracked wood paneling framing the walls and two large, creaky radiators that hummed quietly in the background. I remember feeling their faint warmth as winter set in, a constant, comforting presence amid the colder months.

The chalkboards dominated the room. There was one in the front and one in the back. The front board always had the teacher's careful, neat handwriting, while the back one was messier, smudged with remnants of past lessons, hasty work, or students' attempts at solving problems. The smell of chalk hung in the air, mingling with the sound of chalk scraping against the board. Sunlight streamed through the windows, catching the chalk dust that seemed to hover lazily in the air, like tiny particles of knowledge floating around us. It was in that room, amidst the familiar sounds and smells, that mathematics began to make sense to me for the first time.

My teacher, Mrs. Jennings, was an anchor in that space. There was something comforting about her. She had been my mother's teacher too, and that fact always made me feel like there was an invisible thread connecting us together (me, my mother, and this room). Mrs. Jennings was older now, her hair tinged with gray, but she still carried the same passion my mother had spoken of. Her voice, though gentle, commanded attention. She made us believe that we could learn and that this space was ours for discovery.

Before I found myself in her class, there had been tension. I recall one particular day, sitting in the school office, my feet not quite reaching the floor, fidgeting with my hands as my grandmother had a heated conversation with the principal. "I don't want him in that teacher's classroom," she said firmly. Her voice didn't waver, and I remember the intensity of her gaze. "She failed my son, his uncle, years ago." The air was thick with unease, and even at that young age, I understood that something significant was happening. My grandmother was fighting for me in a way that only she knew how, which was rooted in pain, protection, and memory. Her past grievances weren't just about old wounds; they shaped how she saw my future. Being placed in that same classroom carried a weight, a feeling of difference. Often it felt I had to prove something, not just to the teacher, but to history. I knew then that I wanted to rewrite the narrative. I wanted to show her that despite the past, I could thrive. This time, I would make her proud.

That was the beginning of a journey that would not only shape my understanding of mathematics but also what it meant to be Black in that space. As Gholson and Robinson (2019) explain, Black learners often experience trauma and violence in mathematics classrooms. While I was fortunate not to endure that violence directly, I saw it unfold around me. It was a silent struggle, one that weighed heavily on my peers. Many of them felt the burden of mathematics as more than just an academic challenge; it was a barrier, an obstacle that seemed insurmountable. I remember the way my teacher divided us into groups, based on what she thought we could handle. In a school that was majority white (about 60 percent), I was placed with the "advanced" kids, and for a while, I basked in the pride of being one of the smart ones. But looking back, there was something unsettling about it. Out of all the students in that group, I was the only Black student. I was the "token" Black boy of the 40 percent of Black students in the school, a role that would follow me throughout much of my educational journey.

I think of my friend from fourth grade. She was brilliant, sharp, quick, and always ahead in every subject, except for one: math. Math was her Achilles heel, and I remember the day she broke down in tears because of it. We were supposed to solve a three-digit division problem, and for her, it was the breaking point. I could see how hard she tried, how desperately she wanted to get it

right, but something about math felt like a barrier she couldn't break through. That day, I saw her head bent low and her shoulders shaking. For many of my Black peers, including a close Black friend, mathematics was more than just a subject. Mathematics carried emotional weight, social meaning, and personal significance. It was a space where they felt small, incapable, and broken down. As Gholson and Robinson (2019) argued, the relationship between Black students and mathematics is fraught, often requiring repair.

In middle school, things changed for me. The shift came in sixth grade, in the form of my first Black teacher, Mrs. Tiera Cross-Davis. Mrs. Tiera, a powerful presence whose mere existence challenged the norm, was one of only two Black educators in the entire school. The only other Black teacher served in special education, highlighting just how rare it was to see Black professionals in general education spaces. She was the first educator I'd had who looked like me, and the impact of that was immediate. There was something empowering about seeing her at the front of the classroom. She was a role model, who carried the weight of representation with grace and determination. Mrs. Tiera wasn't just there to teach us math; she was there to make sure we believed in our abilities. Frank and colleagues (2018) asserted that Black mathematics teachers play a pivotal role in the success of all students, and I experienced this firsthand. She stayed after school to tutor my friend, the same one who had cried in fourth grade. I watched her light up as she began to understand the material. It was as though Mrs. Tiera had ignited something in her that had long been extinguished.

In Mrs. Tiera's class, I transitioned from being a learner of mathematics to a doer of mathematics (Cobb et al., 2009). It wasn't just about memorizing formulas anymore; it was about thinking critically, solving problems, and engaging with the material in a meaningful way. Math became fun again, a puzzle to be solved and a challenge I wanted to meet. We played games, moved around the room, and collaborated with one another. It was the kind of learning experience that sticks with you for life.

Unfortunately, the joy I found in her class didn't last beyond middle school. Seventh and eighth grade brought teachers who relied on worksheets and formulas, stripping away the excitement of discovery. By the time I reached high school, I understood the importance of math, but it no longer held the same joy. I stayed on the honors track, but the number of Black students dwindled with each passing year. By my senior year, I was often the only Black face in the room. While my classmates treated me kindly, the absence of others who looked like me was impossible to ignore.

This isolation was magnified by the rural context of my schooling. In small communities, where everyone tends to know one another and social circles are tightly woven, difference can feel even more pronounced. The lack of representation wasn't just a matter of classroom demographics, it echoed through extracurricular activities, parent-teacher events, and hallway conversations. Unlike urban areas where there may be larger clusters of Black students and teachers to form cultural pockets of belonging, rural environments often leave students of color without such networks (Ayers, 2011; Howley & Howley, 2010). In this setting, being the only Black student in an honors class was academically isolating and reinforced a quiet message about who was expected to excel. The challenge wasn't only in navigating rigorous coursework, but in doing so without mirrors or models who reflected my identity and experience (Milner, 2012).

Looking back, I realize how lucky I was to have had those moments of support and encouragement, but I also see how many of my Black peers never got the same opportunities. Ladson-Billings (1997) emphasized the need for reform in mathematics education, particularly for Black students. Every Black student deserves a teacher like Mrs. Tiera, someone who sees them not just as students, but as doers of mathematics, capable of achieving greatness. Not only was she a teacher that inspired me to be a better mathematician, but she also initiated Black joy in me.

A Community Where Everyone Knows Your Name

Growing up in a rural community, my identity as a mathematics learner wasn't just shaped by what happened inside the classroom, but by the deep-rooted connection between the school and the town itself. Theobald and Nachtigal (1995) suggested, "Rural schools have been tightly linked to their communities, and the process of schooling has reflected local values, mores, and ways of life" (p. 1). In my town, this wasn't just an idea, it was our reality. This reality was shaped by a bond that bound the school and the community so tightly that you couldn't mention one without thinking of the other. The school was more than just a building or an institution, it was the heartbeat of our town, pulsing with every event, achievement, and challenge (Barley & Beesley, 2007).

Our town, with its population of about 2,500, felt like an extended family. This feeling can be defined as rural familialism (Crumb et al., 2023). People didn't just know your name; they knew your family, your history, and sometimes they even had a clear sense of what your future would be. You could feel the weight of this familiarity in every interaction. At school, you weren't just yourself, you were so-and-so's son or daughter, or "the kid who helped fix the church roof last summer." This interconnectedness meant that my life as a student wasn't confined to the classroom; it extended into the community and back again, blurring the lines between my academic identity and my place in town.

The school district was the town's largest employer, but beyond that, it was the heart of the community in a much deeper way. School events were community events. The bleachers for our Friday night football games were filled not only with parents but with townsfolk who had no direct connection to the students, just a shared sense of pride in what our school represented. Each performance and award wasn't just mine; it became part of a collective story. Even my failures felt like they were shared by all of us. What I did in school rippled out into the broader town, shaping not only my own reputation but how people saw and spoke of my family at the grocery store or during the Sunday service at church.

Many of the teachers and staff were part of this same web of connections. It wasn't unusual for a teacher to also be your neighbor, church leader, or even relative. I remember one of my high school special education teachers vividly. She wasn't just a figure of authority in the classroom; she was also my cousin, and on Sundays, she was my youth minister, guiding me in a completely different aspect of my life. The roles people played were multifaceted and ever-shifting, seamlessly blending into one another. In our town, no one had just one job. They wore many hats, sometimes switching between them within the same day, all in service to the community.

This created a unique dynamic in which school wasn't just about learning, it was about belonging and contributing to something larger than myself. It meant that I couldn't compartmentalize my school life from the rest of my life. Who I was as a student was who I was as a community member. Test scores, accomplishments, and even my missteps in math class carried weight far beyond the classroom. They seemed to ripple through the community around me. Every Wednesday evening around 5:30 p.m., the deep rumble of the Greater Antioch Missionary Baptist Church bus echoed through the walls of our home like a familiar call to worship and accountability. The sound of its brakes screeching outside meant one thing—Mrs. Beverly, our youth director, was waiting. Without fail, she arrived on time. Her presence was both comforting and commanding. When we arrived at the church, it wasn't just about praise and fellowship; we had study sessions waiting on us. Mrs. Beverly, who also worked for the school district, didn't just care about our spiritual growth, she tracked our academic progress too. She always seemed to know exactly how we were doing in school including, what tests we aced, what homework we missed, and when we fell short of our potential. Her dual roles meant that

celebration and correction came in the same breath: one moment she'd be clapping for your A, and the next, gently calling you out for that B you knew should've been higher. Her commitment taught us that excellence wasn't optional; it was expected and nurtured through both faith and accountability. When I earned good grades, it wasn't just for me. It was something the community could take pride in, something that reflected positively on my family and on the town as a whole.

I remember walking through town and always feeling this sense of being watched. This feeling was not in a way that was stifling, but in a way that made me aware of my responsibility to live up to the community's expectations. When I succeeded, it was celebrated. I would overhear my name being mentioned at the local diner or see a neighbor at church nodding approvingly. And when I fail, that too, would become part of the narrative. I wasn't learning in isolation; my achievements were part of the collective success of the town, and my failures were something everyone felt the weight of, specifically because of my Black identity. It would be typical for someone Black to fail; however, if one were to succeed, then it would be heroic.

It wasn't oppressive, though. In fact, it was a source of pride and accountability. I felt responsible, not just for myself, but for the people around me. My journey through mathematics, like every other part of my education, was tied to this sense of responsibility. The town depended on us, its youth, to succeed. The values we were taught in school were the values of the community. The patience to struggle through a tough problem, the perseverance to keep trying even when things didn't make sense, and the teamwork that math sometimes required, all reflected the larger way of life in our rural town.

In a place where everyone knew each other, it became clear that my success wasn't just my own. It was the town's success. It was my family's success. And when I faced challenges in math, I knew I wasn't alone. I carried with me the collective hopes of a community that believed in hard work, perseverance, and the importance of education. In this way, my identity as a math learner was deeply intertwined with my identity as a member of my rural town.

A Recreated Version of Home

Another profound part of my experience learning mathematics was shaped by my unique and challenging upbringing. I was raised in a single-grandmother-parent household, with my grandmother as my sole caregiver throughout my entire K-12 journey. This dynamic shaped both my personal identity and the way I navigated learning, with math being one of the most affected areas. Skopek and Leopold (2017) described the generational gap that often exists between grandparents and grandchildren, particularly in technology, culture, and academics. The gap wasn't abstract for me. It showed up in my daily experiences, especially during math lessons where I often felt left behind. My grandmother, though fiercely supportive and always pushing me to do my best, was limited in how much she could help as my schoolwork became more advanced.

In my small town where most of my peers had two-parent households, my situation stood out. With only about 30 students in my class, it was easy to know who came from what kind of family, and only two of us were being raised entirely by our grandparents. That kind of isolation felt overwhelming at times. But I found a kindred spirit in the other student who shared my experience. We became incredibly close, so much so that we eventually began calling each other brother and sister. We attended the same church, and over time, the bond we shared grew deeper. Our bond was rooted in a shared understanding of the joys and hardships of being raised by grandparents. Their love was unwavering, but their ability to help us academically, particularly in math, had its limits. These gaps weren't just personal, they reflected broader opportunity gaps within our rural community, where access to math enrichment programs or advanced coursework was rare (Showalter et al., 2023).

There were many times when I felt the divide between my grandmother and me. There were times when the limits of her education and the era in which she was educated became painfully clear. While my grandmother was filled with wisdom gained through life experience, she came from a different generation, where the math she learned in school bore little resemblance to the curriculum I was being taught. I vividly remember sitting at our kitchen table in elementary school, math worksheets spread out before me and asking her for help. In those early years, she would try her best to assist, and sometimes, she could. But by the time I hit 3rd or 4th grade, when my math lessons moved beyond basic arithmetic, her ability to help dwindled.

I can still hear her voice, filled with both love and regret, when I asked her for guidance on a math problem I couldn't solve. "I don't know how to do this," she'd say softly, or "This isn't how we learned it when I was in school." There was a sadness in those words, and though she never said it outright, I could sense her frustration at not being able to help me the way she wanted to. It was in those moments, staring at the math problems on the table and feeling the weight of her inability to assist, that I realized I had to find another way (rural resourcefulness).

Though my grandmother couldn't always help with my homework, her unwavering love and support gave me the motivation I needed to seek out other resources. I started leaning on my friends more, turning to them for academic help. I remember flipping through the pages of our town's phonebook, calling friends one by one to ask, "What did you get for number one?" We would spend hours talking through math problems together, checking each other's work, and explaining the concepts to each other. During this time, internet access was limited and largely reserved for affluent families who could afford dial-up connections and home computers. Over time, this informal study group became my lifeline, helping me navigate the increasingly difficult terrain of math class.

While my friends provided academic support, my grandmother's pride in me never wavered. I remember the way her face would light up when I brought home a good grade, even if she didn't fully understand the subject matter. Her pride was a mixture of joy and relief. It was a feeling of joy because she saw me succeeding, and relief because she knew that, despite her limitations, I was finding ways to thrive. That look on her face became one of the most powerful motivators in my life. I wanted to succeed not just for myself, but for her. She had sacrificed so much to raise me, and I wanted her to feel that all her sacrifices were worth it.

Looking back, I now understand that her joy carried something deeper; it was the healing of a history. A rural Black woman who likely faced extreme educational discrimination, her pride in my education was more than personal, it was generational. Each good grade was a small victory over barriers she once faced. And as the math got harder, so did my determination. When the abstract concepts became overwhelming, I pushed forward. Every solved equation wasn't just an academic win; it was a tribute to my grandmother's resilience and a quiet defiance against the systems that once tried to limit her potential.

In the end, growing up with my grandmother, despite the challenges, shaped me into a resilient and determined learner. The gap between us in terms of education was real, but it was bridged by love, perseverance, and a strong support system of friends. My success in math and school wasn't something I achieved alone; it was something we achieved together, my grandmother and I, through a shared effort to navigate the complexities of learning and life.

Conclusion

Throughout this autoethnography, I explored salient parts of my identity using the lens of CRT's tenet of counterstorytelling. I began by exploring literature focused on CRT, its importance in mathematics education, as well as recent literature about identity development. I then provided

several significant narratives that focus on different intersecting parts of my identity. These include being a Black mathematics learner from a rural area, constructing a rural identity that goes beyond just the place I am from, and being raised by my single grandparent. This exploration of experiences aligns directly with a current trend in mathematics education academia, namely growing attention to methodologies outside of the hegemonic center of our research culture (e.g., autoethnographic approaches; Bowers, 2019). These forms of qualitative and post-qualitative research allow researchers to reason in deep and complex ways otherwise excluded from traditional social scientific research (Smedslund, 2009). Utilizing autoethnographic methods allow researchers to share salient experiences through narratives in a way that centers aspects of our experience that may otherwise be abstracted out of data and findings. There will continue to be a beautiful rise in urban experiences being shared in academia, but I have high hopes that more research will explore rural perspectives on learning mathematics, especially at marginalized intersections.

When reflecting on my experiences as an African American rural student raised by a single grandparent, I recognize how they diverge from the prevailing narratives surrounding urban students. While issues like tracking students of color manifest in both urban and rural mathematics classrooms, the unique dynamics of rural settings shape distinct experiences. In small towns like mine, where everyone knows each other, being the sole Black student in a class often positions you as a “token.” This label carries significant weight, intertwining personal identity with broader societal perceptions of Blackness.

The trauma of this tokenization creates a palpable tension, as you feel accountable not only to yourself, but to your local community and to the expectations of Blackness. It becomes acutely aware that your performance is not just your own; it informs how others interpret and understand the experiences of Black students more broadly. These dynamics foster a sense of division among students of color, leading to an internal struggle where rural, Black learners might feel isolated, battling against a backdrop of systemic inequities.

These traumatic experiences leave lingering impacts that shape my identity, intertwining mathematics with cultural and personal narratives (Aslan et al., 2011). They also echo broader themes found in literature on urban Blackness, where the weight of representation and the pressure of being observed are prevalent. There is both resonance and divergence in these narratives. In other words, while urban students may face different challenges, the emotional toll of being a token, coupled with constant scrutiny, remains a shared reality that transcends geography.

Given this complexity, future research should explore how the identities of rural students of color influence their mathematics learning, employing critical approaches such as autoethnographies or ethnomathematics (Aslan et al., 2011). By deepening our understanding of these unique experiences, we can better address the educational needs of rural students of color and challenge the dominant narratives that often overlook their stories.

There is a call to increase research in the field of mathematics education in the context of ruralness, and I echo that sentiment. Howley (2003) argues that although literature in mathematics education continues to grow, rural mathematics education seldom receives any attention. Although there is a lack of research on rural mathematics education, research on that topic has great implications for the field of mathematics education. Researching rural mathematics and rural experiences allows researchers to understand mathematics-related issues, experiences, and needs for improvement within that area. Furthermore, more than 60 percent of the United States school districts are considered to be located in rural places; however, the current academic literature does not reflect this (Howley, 2003). This invisibility is echoed in more recent findings, which show that over 9.5 million students attend rural schools (Showalter et al., 2023). Furthermore, this is more than those enrolled in the 100 largest U.S. school districts combined. Yet, rural students and their

unique educational contexts remain underrepresented in research, policy, and practice (Showalter et al., 2023). Thus, there is a need for more research and literature to be conducted on rural mathematics education.

My experience is meaningful, but it is just one small part of a much larger story waiting to be told through future research. As Crumb et al. remind us, rural learners often embody forms of capital that are too often overlooked: familial capital, resistance capital, rural resourcefulness, and deep community ties. These are not merely supports that help students survive; they are powerful sources of strength that deserve to shape how we understand mathematical identities. When I think of my grandmother, her unwavering love and quiet resilience come to mind, the very foundation that carried me through challenges in math and life. If this research had existed when I was younger, it would have felt like someone finally seeing and valuing the richness of my world, giving voice to the hidden strengths that my grandmother and I carried. Uplifting these narratives through counterstorytelling is more than an academic exercise; it is a way to honor those lived experiences and to reshape how success, intelligence, and engagement are defined in rural mathematics classrooms.

Afterword: Dialogue Between Scholars

The development of this manuscript was deeply shaped by ongoing dialogue and mentorship, particularly through my work with Dr. Clint Whitten, Assistant Director for the Center for Rural Education (Research Scientist) and faculty in Curriculum and Instruction: Foundations of Education (Rural Education). While I wrote the manuscript, Dr. Whitten reviewed each section and provided valuable feedback grounded in his expertise in narrative research, creative writing, and rural education research. His insights were instrumental in refining the narrative flow, strengthening the theoretical framing, and ensuring that my personal experiences were effectively connected to broader scholarly conversations about rurality, race, and mathematics education.

Through our iterative process, Dr. Whitten challenged me to clarify the significance of my experiences, pushing me to articulate why these narratives matter for the field and how they disrupt dominant paradigms in mathematics education research. His guidance led me to highlight more explicitly the cultural and structural forces shaping rural Black learners' experiences and to ensure that my story contributes both personally and academically.

Ultimately, the revisions that emerged from this collaborative feedback process resulted in a manuscript that not only chronicles my journey but also advocates for a richer understanding of rural Black learners in mathematics education. By centering counterstorytelling, I hope this work contributes to ongoing conversations about equity and representation in educational research.

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