



Communities for and with Black Male Stud

Four strategies can be effective in creating supportive learning environments.

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The social and educational status of black male youth in the United States has been receiving increasing attention. In February 2014, President Barack Obama announced a new national initiative—My Brother’s Keeper—for helping black boys and male youth or, to speak more generally, boys and young men of color, to “stay on track; providing the support they need to think more broadly about their future; building on what works, when it works, in those critical life-changing moments” (Obama 2014, ¶ 45). This initiative is intended to reach beyond the school setting to help address the many challenges for black boys and male youth in the broader society (Howard 2014). The deaths of Trayvon Martin and Michael Brown, for example, are two high-profile events that have thrust into the national spotlight discussions about the challenges of being black and male in the United States. Currently and historically, news media, popular cultural, policy reports, and educational conferences too often paint a negative picture of black boys and male youth (Brown 2011). Numerous images and discourses throughout society imprint on the hearts and minds of people the negative stereotypical image of black male youth as thugs. Our aim here is to assist secondary school mathematics teachers in exploring strategies to engage the aca-

demical and mathematical promise of their black male students and, in doing so, create classrooms as mathematical communities that support the mathematics learning of all students.

What might these classrooms look like? Classrooms as mathematical communities are humanizing and self-empowering education spaces where students actively participate in as well as take ownership of their mathematics learning and also, and perhaps more important, the mathematics being taught and learned (Boaler 1998). If created effectively, such classrooms value and use cultural differences between and among teachers and students as assets in building mathematical understanding (Nasir, Hand, and Taylor 2008). Here, both students and teachers build mathematical understanding through in-school and out-of-school academic communities (Walker 2006) as culturally specific ways of being and as community knowledge becomes foundational in the teaching and learning of mathematics (Civil 2007; Leonard 2008). In classrooms as mathematical communities, classroom discourses that foster explanation, argumentation, and defense of mathematical ideas between and among teachers and students become classroom norms (Walshaw and Anthony 2008). Rather than alienate learners, which occurs far too often for



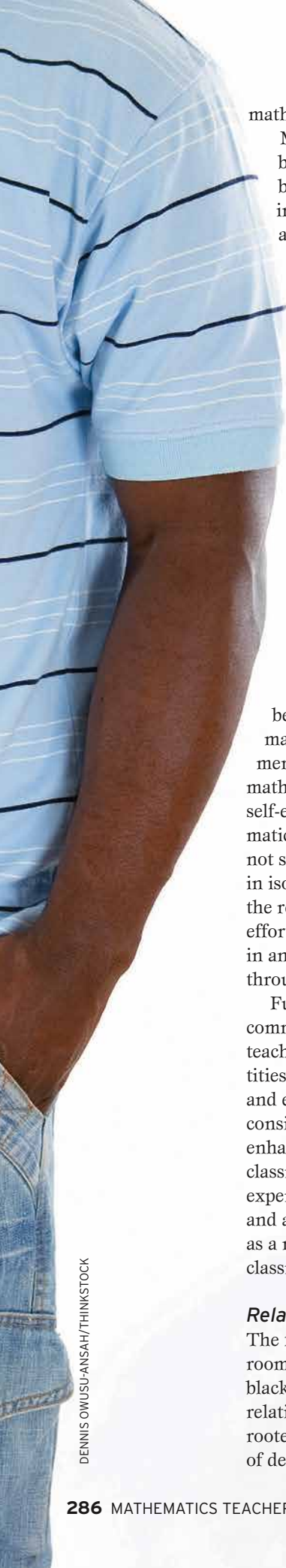
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many students in “traditional” classrooms (Boaler 2000), classrooms as mathematical communities are co-created by teachers and students “where students of varied backgrounds and abilities work *with* expert teachers, learning important mathematical ideas with understanding, in environments that are equitable, challenging, supportive, and technologically equipped for the twenty-first century” (NCTM 2000, p. 4; emphasis added).

RECOMMENDED STRATEGIES

Over the past several years, research has explored and made recommendations for improving the mathematical persistence and achievement of black students (see, e.g., Berry, Ellis, and Hughes 2014; Ladson-Billings 1997; Malloy and Brader-Araje 1998; Martin 2000). On the basis of our individual and collective research that

explored the life and schooling experiences of academically and mathematically successful black male students (see Jett 2009; Stinson 2004; Stinson, Jett, and Williams 2013; Williams 2003), we recommend four explicit strategies to effectively create classrooms as mathematical communities for and with black male students. Although these strategies are typically presented with respect to the schooling of black youth, we believe that each strategy can be used to create classrooms that function as



mathematical communities for all students.

Mathematics teachers who are effective in building classroom communities for and with black male students are thereby instrumental in improving the mathematical persistence and achievement for black male students. Through our individual and collective experiences as both classroom teachers and education researchers, we identify as effective those who—

- develop caring relationships that reach beyond the mathematics classroom and set high expectations for academic and mathematics success;
- access and build on out-of-school experiences and community funds of knowledge during instruction;
- implement culturally relevant pedagogy throughout instruction; and
- disrupt school mathematics in particular and mathematics in general as a white institutional space.

We offer suggestions of how one might begin to do this work in secondary school mathematics classrooms. We make these recommendations and suggestions in solidarity with mathematics teachers who desire an inclusive and self-empowering space for learning rigorous mathematics for all students. Outlined here, however, are not silver bullet remedies that are applied once and in isolation from other classroom practices; rather, the recommendations require deliberate repeated efforts that are explicitly and implicitly integrated in and through classroom practices and norms throughout the school year.

Further, to create classrooms as mathematical communities for and with black male students, teachers must understand their own cultural identities, continuously reflect on their beliefs about and expectations for their black male students, and consider the ways in which culture supports and enhances teaching and learning in the mathematics classroom. We challenge mathematics teachers to experiment with the four recommended strategies and accompanying suggested classroom practices as a means to transform their own mathematics classroom.

Relationships and Expectations

The first recommended strategy of effective classrooms as mathematical communities for and with black male students is for teachers to develop caring relationships based on clearly articulated goals and rooted in high expectations. To begin the process of developing such relationships, teachers could

have students complete an interest inventory (see, e.g., <http://www.slvboces.org/view/135.pdf>). Such inventories can be completed throughout the school year to determine what black male students might care about and to ascertain their goals for the academic year and beyond. Mathematics teachers who cultivate caring and trusting relationships move beyond standards and testing as they develop educational experiences that accommodate students' cultural backgrounds and experiences, interests and noninterests, and goals and aspirations (Gay 2010; Noddings 1988).

By deepening their understanding of their students' life experiences and cultural backgrounds and presenting themselves as passionate and committed individuals, mathematics teachers nurture the collaborative process of building caring relationships. Through meaningful, relevant, and worthwhile mathematical learning experiences, teachers can establish expectations of academic excellence and simultaneously engage students more deeply in mathematical reasoning and sense making (Hackenberg 2010). Effective teachers of black male students communicate high standards in caring and safe classrooms as mathematical communities.

Experience and Knowledge

Another recommendation for teachers is to assess and build on black male students' out-of-school experiences and community funds of knowledge. One way to do this is to have students write a mathematics autobiography (see, e.g., Yow 2012). In these autobiographies, students can anchor their stories in their childhood and adolescent life experiences and link those experiences to both the mathematics that they know and the mathematics that they are learning. Students also can create presentations of their own mathematical stories throughout the school year. Such interdisciplinary assignments can capture, assess, and build on black male students' out-of-school mathematical experiences and in-school mathematical learning.

Connecting out-of-school experiences to in-school mathematics teaching and learning is instrumental in providing students with access to mathematics in a nuanced fashion, strengthening students' mathematics skills, and propelling them to be high achievers in mathematics (see, e.g., Nasir [2002] and Nasir and Hand [2008] for discussions of the mathematics found in playing dominoes and basketball). Effective teachers design lessons so that students can pull from out-of-school experiences, share them in their classroom communities, and learn from one another's formal and informal mathematics. This instructional practice, integrated throughout the school year, also includes drawing on the historically accumulated bodies of knowledge, skills, and

dispositions learned and developed in and through community interactions (González et al. 2001). Generally speaking, effective teachers position black people as doers and creators of mathematics in classrooms as mathematical communities.

Culturally Relevant Pedagogy

The next recommendation is to ground instructional practices in culturally relevant pedagogy (Ladson-Billings 2009; see also Gay [2010] and Leonard [2008]). There are three foundational propositions of culturally relevant pedagogy: (1) students must experience academic success; (2) students must develop or maintain cultural competence; and (3) students must acquire a critical consciousness (Ladson-Billings 1995). In other words, culturally relevant pedagogy promotes black students' success and achievement through cultural competence—teachers assist students in developing a positive cultural identity—and through sociopolitical consciousness—teachers assist students in developing civic and social awareness to work toward equity and social justice (Ladson-Billings 2001). Here, culturally relevant *mathematics* pedagogy uses *critical* mathematics for the purpose of promoting social justice (see, e.g., Gutstein and Peterson [2013]; Wagner and Stinson [2012]). That is, critical mathematics—or, more broadly, teaching mathematics for social justice—explores mathematically a variety of social injustices, such as the injustices of racial profiling of black or brown drivers (see, e.g., Stinson, Bidwell, and Powell [2012]).

Overall, culturally relevant mathematics teachers build on students' informal mathematical knowledge and cultural and experiential knowledge, orient instruction toward students' culture and life experiences, and develop tools of critical mathematical thinking and critical thinking about knowledge in general (Gutstein et al. 1997; see also Jett 2013). In the end, rather than have students repetitively “solve problems” from textbooks and worksheets, culturally relevant mathematics teachers engage students in critical mathematics “problem solving” that is connected to their cultural and life experiences and ways of knowing and being. In doing so, they affirm black students' mathematical brilliance (see Leonard and Martin 2013) and invite their active and critical participation in classrooms as mathematical communities.

Disrupted Institutional Space

The fourth recommended strategy is for teachers to disrupt school mathematics (and mathematics in general) as an institutional space of whiteness (see, e.g., Martin [2008, 2010]). Teachers can assign students to research mathematicians and

mathematical contributions from culturally diverse groups in general and black people in particular. Students can create, present, and display posters in the mathematics classroom to highlight these diverse contributions throughout the school year. Too often, discussions about black mathematicians typically occur only during Black History Month, if then. But it is not enough to just highlight these contributions; teachers must also explicitly and implicitly work at changing the status of their black male students in the classroom by assisting them in authoring positive mathematical identities (Nzuki 2010). An enacted positive “mathematical identity” (Martin 2000) in classrooms repositions black males students as doers and creators of mathematics as they negotiate the “white male math myth” (Stinson 2013).

Effective teachers design lessons so that students can pull from out-of-school experiences and learn from one another.

Generally, societal discourses, mathematics textbooks, and other curricula materials continue to support the myth that mathematics is an enterprise primarily reserved for white men. Adolescent learners, as well as members of society in general, internalize these stereotypical myths and envision a mathematician reserved as a profession for only white male nerds (Picker and Berry 2000). Conversely, effective mathematics teachers of black male students disrupt this misguided archetype by recognizing the mathematical contributions of mathematicians, historically and currently, from culturally diverse groups throughout the school year (see, e.g., Joseph [1990]; Powell and Frankenstein [1997]). These teachers construct the mathematics classroom community as one in which their black male students can elevate their classroom status by building on this historical knowledge in critical and practical ways. In other words, effective teachers of black male students change the face of mathematics (Strutchens, Johnson, and Tate 2000) by challenging conventional notions of who does and creates mathematics as they connect to the culturally rooted mathematical knowledge and skills of their black students. All in all, effective mathematics teachers of black male students disrupt mathematics broadly as a white enterprise; build on the mathematical brilliance of black students, both past and present; and propel black students to make manifest their mathematical ingenuity.

SELF-EMPOWERED STUDENTS

By creating classrooms as mathematical communities in which black male students can collectively engage in culturally specific mathematical tasks, secondary school mathematics teachers have a unique opportunity to support self-empowerment, culturally and mathematically. Drawing from these four recommended strategies and the practical suggestions of how one might go about doing this work in secondary school contexts, teachers can build on these ideas to improve the mathematics learning outcomes for black male students. In the end, these supportive learning environments position black male students as doers and creators of mathematics in self-empowering and liberating classroom communities.

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