

BOOK REVIEW

Mathematics, an Empowering Tool of Liberation?: A Review of *Mathematics Teaching, Learning, and Liberation in the Lives of Black Children*¹

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Over the years, the phrase *mathematics teaching and learning* has become synonymous with mathematics education. There have been some scholars who have extended the phrase by specifically intertwining mathematics teaching and learning with Black² children. But what about enhancing the phrase—both in concept and in practice—by coupling mathematics teaching and learning with liberation in the name of Black children? That is exactly what Danny Bernard Martin’s edited book *Mathematics Teaching, Learning, and Liberation in the Lives of Black Children* (Routledge, 2009) does so poignantly.

Organization of the Book

The book is organized into four sections: (a) Mapping a Liberatory Research and Policy Agenda, (b) Pedagogy, Standards, and Assessment, (c) Socialization, Learning, and Identity, and (d) Collaboration and Reform. All 14 chapters are thought provoking, with figures and tables interspersed throughout to validate the authors’ arguments. In addition, the real-world examples of “mathematics in context” in mathematics classrooms offer a direct application of research presented throughout the volume to the mathematics experiences of Black children.

The first section, *Mapping a Liberatory Research and Policy Agenda*, includes a single chapter from Martin (2009) who provides a critical race analysis on the knowledge production of Black children and mathematics. That is to say,

¹ Martin, D. B. (Ed.). (2009). *Mathematics teaching, learning, and liberation in the lives of Black children*. New York: Routledge. 376 pp., \$54.95 (paper), ISBN 0-8058-6464-4
<http://www.routledgeeducation.com/books/Mathematics-Teaching-Learning-and-Liberation-in-the-Lives-of-Black-Children-isbn9780805864649>

² I use the terms *Black* and *African American* interchangeably throughout this review.

Martin's analysis is an examination of much of the existing mathematics education research and policy regarding Black children from a critical race theoretical perspective—a perspective that highlights the often negative effects of existing research and policy on the lives of Black children. To counteract these negative effects, Martin convincingly argues for culturally sensitive approaches to research and policy that are liberatory in nature. As a result, his chapter frames the book, underscoring the overall theme of mathematics liberation for Black children.

In the second section *Pedagogy, Standards, and Assessment*, theories such as culturally relevant and culturally responsive pedagogy refreshingly run rampant throughout the chapters. These culturally centered discussions, however, are not limited to African American students. Examples of the mathematics experiences of children and mathematics educators from Bermuda and South Africa are also included in the discussions. Drawing on teachers' and students' voices, these chapters offer the reader the opportunity to explore culturally specific pedagogical frameworks related to teaching mathematics to Black students.

The third section *Socialization, Learning, and Identity*, which resonated with me the most, examines how African American students are socially constructed, how they are framed as mathematics learners, and how their identities are shaped as African Americans and students of mathematics. The authors in this section explore socialization and identity issues as it relates to African American students' mathematics performance. The student discussions concerning various racial stereotypes are robust and provide a frame to investigate socialization, learning, and identity as it pertains to African American children and mathematics.

The last section, *Collaboration and Reform*, includes one chapter. In this final chapter, The Maryland Institute for Minority Achievement and Urban Education is presented as a successful model that serves as a liberatory initiative for Black children and adults alike. Highlighting engaging events such as family math nights, an elementary school based African American male mentoring program, and university colloquia, to name a few, Johnson and Brown (2009) express that these efforts have been liberatory in nature and have influenced the (mathematics) academic achievement rates of African American students. Johnson and Brown also outline some specific suggestions to consider when forming liberating school–university partnerships that seek to improve the mathematics achievement rates of Black children.

Nuances in Black Mathematics Education

As I began to write this review, reflecting on the book both as a whole and as individual chapters, the chapter that I returned to often was Leonard's (2009) chapter: “‘Still Not Saved’”: The Power of Mathematics to Liberate the Op-

pressed.” Although she wrote about her experiences in the Methodist Church, I am reminded of my own experiences in an African American “sanctified” church. The church has faithfully served as a liberating place for me from the liberating preacher to the spirit-filled soloists leading the choir, with the tambourines, drums, and organs accompanying these liberating sprits. When we have been “moved” in the sanctified church, we are compelled to think and act differently, hopefully, seeking to become liberated individuals. I translate those ideas to this area of inquiry challenging those vested in the mathematics teaching and learning of Black children to be moved by some of the nuances explicated in this volume. In this context, acting and thinking differently might imply conducting research that highlights the strengths of Black children in mathematics classrooms as well as deconstructing inferiority discourses concerning the mathematics abilities of Black children. I pay particular attention to a couple of the nuances suggested by some of the authors below.

First, several of the authors intersect issues of race and/or racism to their mathematics education research regarding Black children. In this volume, critical race theory (CRT) seems to be the leading theoretical approach to this end. There is also, however, a charge for researchers to employ Black liberation theology to mathematics education research and pedagogy. Black liberation theology is an underutilized theory in mathematics education scholarship. Furthermore, Black liberation theology might be another avenue that leads to better understandings of how African American students are engaged in and connected to mathematics.

In addition, many of the authors express their disdain for how (mathematics education) research and policy categorize African American mathematics learners as unintelligible. More important, the authors critically examine policy efforts supposedly designed to serve the educational (mathematics) needs of Black students. These authors argue that many of the policy efforts have worked to perpetuate existing notions in mainstream discourse concerning the perceived mathematical deficiencies of Black children. Policymakers and other stakeholders must reconceptualize how they bring policy into fruition, especially when they start with the premise that African American students are lacking the mathematical aptitude to succeed in their mathematical endeavors. Along with this charge is the need for more research that highlights the mathematics successes and strengths of African American learners to be the primary sources to inform research and policy.

Furthermore, this volume causes researchers to think differently about mathematics education research and its implications for Black children. King (2005), in her work with the American Educational Research Association’s Commission on Research in Black Education, explored the question: “How can research become one of the forms of struggle for Black education?” (p. 6). In like manner, how can mathematics education research (as well as mathematics teaching and

learning) serve as an emancipatory and liberating force in the “struggle” for mathematics achievement among Black students?

Critiques of the Book

In the second section *Pedagogy, Standards, and Assessment* there are examples presented of teachers’ instructional strategies. It seems as if there is an overwhelming emphasis on the pedagogical aspects of teachers of Black children in this section. For this reason, the second section might have been entitled pedagogy. While references are made to the National Council of Teachers of Mathematics’ *Standards* as well as various assessments, it appears that issues regarding the pedagogical practices of teachers of Black students are the primary foci of the discussions.

While there is some discussion of successful mathematics educators, it might have been useful to read interview data from Black mathematics teacher educators who have a legacy of liberating Black children as well as liberating pre-service and inservice teachers of Black children. A case study devoted to highlighting the success of Black mathematics teacher educators might serve as a springboard to facilitate discussions surrounding issues concerning being a liberated Black mathematics educator and producing liberating mathematics teachers. Hilliard (2003) argues that it takes gap-closing teacher educators to teach and produce gap-closing teachers and school leaders. Similarly, only those mathematics teacher educators who are liberated themselves might be able to produce mathematics teachers who seek liberation in the lives of Black children. What better way to learn than from the voices and experiences of successful Black mathematics teacher educators.

With the emphasis on the shortage of Black mathematics majors, a chapter focusing specifically on Black college students’ mathematics experiences might have been insightful. Although the book’s title emphasizes Black children, it might be far-fetched to expect a chapter regarding the experiences of undergraduate students. Given the application of various theoretical frameworks such as CRT, Black feminism, and Black liberation ideology in this volume, however, examining the experiences of undergraduate students employing these theoretical approaches would have aligned closely with the theme of the book and offered additional insights for researchers and policymakers in this area of inquiry. Furthermore, institutions of higher learning are an exceptional space to explore issues of race and/or racism given the racial diversity of various higher education institutions (e.g., historically Black colleges and universities, predominantly White institutions, Hispanic-serving institutions, etc.).

Because this volume, I believe, is such important work, it would have been beneficial to see an additional chapter or two added to the final section (*Collabo-*

ration and Reform) to further emphasize the seriousness of putting these liberation ideas into action. Another example of a school–university partnership could have been a starting point to this end. After reading such liberating work throughout the first three sections of the book, it would seem plausible that more collaborative and reform initiatives would be presented to expose readers to the great collaborative models that are being constructed on many fronts. The driving force of such powerful work, I argue, should be the “call to action” from university, K–12, and community advocates to collaboratively undertake some of the charges presented in this volume.

Concluding Thoughts

I must admit I am a biased reader when it comes to this area of inquiry. First, I am an African American male scholar and mathematics educator who seeks to establish liberatory mathematics practices in both my scholarship and pedagogy. Second, I am a huge “fan” of Danny Martin’s scholarship. I identify with his research and, too, like Perry, Steele, and Hilliard (2003), conceptualize African American learners as young, gifted, and Black. And last, I seek to problematize issues of race and/or racism in my own research. With that being said, I have a deep appreciation for this volume and understand its value for the educational enterprise in general and Black children in particular. Even those who do not share my same sentiments will find this book to be insightful, informative, and thought provoking concerning the mathematics teaching and learning of Black children. The chapters offer different perspectives on an important, relevant topic in mathematics education research and practice.

With the limited exposure of African American mathematics education scholars’ research, this work exposes readers to the many voices in mathematics education that differ from mainstream discourses in mathematics education research. While there are a couple of chapters written by White scholars, these White scholars’ language is extremely different from the dominant discourse that often frames Black children as unintelligible and doomed to mathematics failure. Notwithstanding, this book is a significant contribution to the education community in general and the mathematics education community in particular because of the dominance of voices of Black mathematics education scholars and teacher educators and the powerful narratives produced by Black children themselves.

As we move forward with the challenge of liberation in the lives of Black children, I believe it is worth drawing attention to some crucial questions posed in the book. These questions include: “Why should African American children learn mathematics?” (Martin, 2009, p. 25); “Who is a highly qualified mathematics teacher relative to the needs of African American children?” (Martin, 2009, p. 27); and “In what ways might African American teachers influence their African

American students' perceptions of themselves as 'doers of mathematics'?" (Clark, Johnson, & Chazan, 2009, p. 47).³ These questions, I believe, are the hallmarks of future research in this area of inquiry.

In sum, this book is worth reading because it gives "voice" to both Black mathematics educators and Black children. Additionally, it is a must read, I believe, for those seeking to develop deeper understandings of the dynamics concerning the mathematics teaching and learning of Black children. I cannot glean all of the unique perspectives of the book, but I hope this book review motivates potential readers to engage in a reflective, critical read. Moreover, I hope and trust that those who read this book will seek to (re)establish mathematics teaching and learning practices that utilize mathematics as an empowering tool for liberation, especially in the lives of Black children.

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³ hooks (1994) argues that Whites can come to know Blacks' realities (i.e., be successful at teaching Black children), but that they know them differently. Therefore, I am not suggesting that only African American teachers should teach African American students. In this instance, I only wish to highlight the unique influences that Black teachers might have on Black children.