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2011 Benjamin Banneker Association National Science Foundation Conference Program - Beyond the Numbers: The Brilliance of Black Children in Mathematics

Benjamin Banneker Association

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Benjamin Banneker Association. (2012). 2011 Benjamin Banneker Association National Science Foundation Conference Program - Beyond the Numbers: The Brilliance of Black Children in Mathematics. *Journal of Urban Mathematics Education, 5*(1). Available at: http://ed-osprey.gsu.edu/ojs/index.php/JUME/article/view/181/108

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2011 Benjamin Banneker Association Conference

Sponsored by the

National Science Foundation

Beyond the Numbers: The Brilliance of Black Children in Mathematics

Georgia State University

November 2011
Student•University Center

DEPARTMENT OF MIDDLE-SECONDARY EDUCATION
AND INSTRUCTIONAL TECHNOLOGY

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November 11, 2011

Dear Conference Participants:

On behalf of Georgia State University and the Benjamin Banneker Association, we welcome you to the 2011 Benjamin Banneker Association (BBA) Conference *Beyond the Numbers: The Brilliance of Black Children in Mathematics*, sponsored and generously funded by the National Science Foundation (NSF). The conference theme—**The Brilliance of Black Children**—aims to motivate a different discourse about Black children and mathematics teaching and learning. In general, the conference represents the steadfast commitment of BBA and NSF to positively influence mathematics access and excellence for Black (*all*) children.

The conference participants include mathematicians and mathematics teachers, administrators, educators, and researchers who strongly support this commitment toward mathematics access and excellence for all children. Many agree, we must continue to demand equitable opportunities to learn so that, even among the injustices of racism, Black children, like Benjamin Banneker himself, might be purposeful and innovative in their learning of and engagement with mathematics.

The conference speakers represent researchers and scholars throughout the United States who are visible advocates for the teaching and learning of rigorous, meaningful, and culturally relevant mathematics for Black children. During the symposia and breakout sessions, you will learn about some of the most up-to-date research on teacher preparation and professional development for mathematics teachers of Black children, mathematics persistence and achievement among Black children, mathematics identities and intellectual communities of Black children, and how Black children might acquire critical mathematics literacy through social justice and cultural relevant pedagogy.

We organized the conference to provide you with several opportunities to meet others who hold similar beliefs about the brilliance of Black children so that you might share ideas and some of the work in which you are engaged. Overall, we hope the conference provides ongoing opportunities for networking, collaborating, and developing professional learning communities and relationships.

Again, we extend a warm welcome to you and all our colleagues in the education community who share our passions in assisting, as Dr. Asa Hilliard wrote, all children in reaching "levels of [mathematics] excellence." We are grateful for your presence and active participation in what promises to be a most stimulating and enjoyable event!

Warmest regards,

David W. Stinson, Ph.D. Conference Co-host	Pier A. Junor Clarke, Ph.D. Conference Co-host	Erika C. Bullock Conference Administrator

COLLEGE OF EDUCATION
OFFICE OF THE DEAN

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November 11, 2011

Dear Colleagues:

Welcome to our college, Georgia State University, and this national conference on the brilliance of Black children in mathematics. I am grateful to all for your attendance, the sponsorship of the National Science Foundation and Benjamin Banneker Association, and the conference co-hosts Drs. David Stinson and Pier Junor Clarke.

Each day of the conference features two symposia where education scholars, researchers, and teacher educators present current trends and up-to-date research on the mathematics teaching and learning experiences of Black children. And on both days, these symposia are followed by small breakout sessions where conference participants can discuss in-depth how all children might be provided learning opportunities to reach levels of mathematics excellence.

Given our college's explicit focus on urban education, we are pleased to provide the critical mathematics educators and classroom teachers assembled the space for two intense days of engagement and reflection about how we might all contribute to achieving excellence in the mathematics education for Black children.

Please enjoy your stay and take time to learn more about our college's commitment to urban education. We are at your service.

Wishing each of you a successful conference experience,

R.W. Kamphaus, Ph.D.
Dean and Distinguished Research Professor

Presumption should never make us neglect that which does not appear easy to us, nor despair make us lose courage at the sight of difficulties.

–Benjamin Banneker

PRESIDENT'S MESSAGE

Cheryl Adeyemi, Ph.D.
Virginia State University

November 11, 2011

Greetings Conference Participants:

On behalf of the Board and membership of the Benjamin Banneker Association, I welcome you to the 2011 Benjamin Banneker Association Conference ***Beyond the Numbers: The Brilliance of Black Children in Mathematics*** – sponsored by the National Science Foundation and Georgia State University, Atlanta, GA, November 11–12, 2011.

The Benjamin Banneker Association (BBA) wishes to thank Dr. Jacqueline Leonard, BBA Past President, and Drs. Peter Appelbaum, Erika Davila, and David Stinson for their vision and leadership in acquiring the generous National Science Foundation funding for the two mini-conferences (Philadelphia 2010 and Atlanta 2011) and summit (Denver 2010) series. BBA also extends its gratitude to Dr. Pier Junor Clarke and Ms. Erika Bullock, co-host and conference administrator, respectively, for the Atlanta conference, as well as the faculty and student supporters and volunteers from Georgia State University (GSU). We are very encouraged by and appreciative of the intimate involvement of GSU graduate students—our next line of defense in our advocacy for Black children in mathematics.

This conference provides BBA members and supporters with yet another opportunity to come together, share our research and expertise, and learn more about the most effective and promising ways of mathematics teaching and learning for Black children. The symposia and breakout sessions during the next two days provides our *village* of mathematics educators with a greater individual and collective understanding and appreciation of the multiplying successes that we might celebrate and the continuing challenges that we will face—thus far, and those to come.

The research presented during the conference has the specific aim to highlight and honor the great potential and brilliance of Black children in mathematics and to increase the growing numbers of advocates for the teaching and learning of mathematics for Black children. BBA wishes to thank the conference presenters whose scholarship and research provides a foundation for the important equity work to which we and others have committed ourselves. Without your dedication and concern for the teaching and learning of mathematics for Black children, this conference and the advocacy work of BBA would not survive nor thrive.

The Benjamin Banneker Association heralds this conference as another important event in our yearlong celebration of our 25th Anniversary. As we celebrate 25 years of advocacy, we are reminded of the work yet to be done. The inadequate number of high-quality environments of mathematics teaching and learning in U.S. schools for Black children continues to be a key factor contributing to their underperformance.

As a result of these conditions, Black children and other children of color are denied access to challenging mathematics, advanced mathematics courses, and STEM academic and professional opportunities. As those who advocate mathematics education reform continue to explore and create ways to improve the teaching and learning of mathematics, we will find ourselves critically examining new initiatives and programs to determine their possible impact on the teaching and learning of mathematics for Black (and *all*) children. We want to ensure that our advocacy will be focused and truly make a difference in the lives of Black children.

For instance, currently, BBA is promoting an initiative to analyze the potential impact of the Common Core Standards (CCS) on Black children. We will be an important voice in the discussion that determines how CCS can be effective with Black students so that we don't leave our children "even further behind." BBA asks those of you assembled here this weekend to join our efforts to critique this new curricular initiative through your research agendas and expertise.

At the October 16th unveiling of the statue of Dr. Martin Luther King Jr. in Washington, DC, Reverend Bernice King reminded those in attendance that regardless of the countless challenges and struggles we face today and tomorrow, we must not give up…we must not become weary…there is much work to be done.

In the spirit of Dr. King, 25 years ago, seven courageous visionary mathematics educators founded BBA to provide a forum for discussing the successes and challenges and needed advocacy work for the learning and teaching of mathematics with respect to African American children. This work, began by the founders of BBA—similar to Dr. King's work—is not yet complete. There is much work to be done.

FOUNDING MEMBERS

Benjamin Dudley
Edgar Edwards, Jr.
William Greer
Harriett Haynes
Marie Jernigan
Genevieve Knight
Dorothy Strong

The Benjamin Banneker Association is confident that this conference will stimulate further scholarly research that will advance the vision and work of BBA. As we raise the bar in terms of advocacy, membership, services, programs, publications, and collaborations with other organizations, we encourage all conference participants to become active BBA members. We ask each of you to learn more about the history of BBA and its advocacy work over the past 25 years. On this, our 25th Anniversary, we challenge you to join and get (and stay) involved with your BBA!

In closing, on behalf of the BBA Board and members, I wish to once again thank everyone who will make this conference a success. We say, "Job well done!" (in advance). Think deeply and reflectively on your experiences during these two days and ask yourself what more will *you* do and what more can *we* do together. Remember that Benjamin Banneker members are committed to removing the obstacles that keep Black children from achieving parity of opportunity to study and excel in mathematics. Become a part of this quest. If you are not currently a member—join BBA by the end of this conference!

–If not now, then when… And if not us, then who?

Sincerely and respectfully,

Cheryl Adeyemi

Cheryl Adeyemi, Ph.D.
President – Benjamin Banneker Association

BEYOND THE NUMBERS:

THE BRILLIANCE OF BLACK CHILDREN IN MATHEMATICS

FRIDAY November 11, 2011

11:00–12:15	**Registration**	Student Center
	Lunch	Urban Life
12:15–1:00	**Welcome:** ▪ Dean Randy Kamphaus ▪ Dr. David Stinson ▪ Dr. Pier Junor Clarke Georgia State University **Logistics:** Ms. Erika Bullock	Speakers Auditorium

Symposium I

Black Children and Mathematics Teacher Education

1:00–2:00	▪ Dr. Shonda Lemons-Smith Georgia State University ▪ Dr. Dorothy White The University of Georgia ▪ Dr. Christine Thomas Georgia State University	Speakers Auditorium
2:00–2:15	**Break**	

Symposium II

Black Children and Mathematics Success

2:15–3:15	▪ Dr. Robert Berry University of Virginia ▪ Dr. Brian Williams Georgia State University ▪ Dr. Christopher Jett Georgia State University	Speakers Auditorium
3:15–3:30	**Break**	

Breakout Sessions*

3:30–5:00	Presenters from Symposia I and II will facilitate five (5) breakout sessions (see Table 1)	Student Center Rooms
5:00–5:15	**Break**	

Program

Celebrating 25 Years of the Benjamin Banneker Association

5:15–6:15	▪ Ms. Linda Gojak NCTM President-Elect John Carroll University ▪ Dr. Cheryl Adeyemi BBA President Virginia State University	Speakers Auditorium
6:15–7:45	**Networking Reception**	Urban Life

Saturday November 12, 2011

8:00–9:00	**Breakfast** **Keynote Address:** ▪ Dr. Joyce King Georgia State University	Urban Life

Symposium III

Black Children's Identities and Communities

9:00–10:00	▪ Dr. James Earl Davis Temple University ▪ Dr. Danny Martin University of Illinois at Chicago ▪ Dr. Erica Walker Teachers College Columbia University	Speakers Auditorium
10:00–10:15	**Break**	

Symposium IV

Black Children and Critical Mathematics Literacy

10:15–11:15	▪ Dr. Jacqueline Leonard University of Colorado Denver ▪ Dr. Natasha Brewley Georgia Gwinnett College	Speakers Auditorium
11:15–11:30	**Break**	

Breakout Sessions*

11:30–1:00	Presenters from Symposia III and IV will facilitate six (5) Breakout Sessions (see Table 1)	Student Center Rooms
1:00–2:00	**Lunch** **Wrap up:** ▪ Dr. David Stinson ▪ Dr. Pier Junor Clarke Georgia State University **Closing Remarks:** ▪ Dr. Jacqueline Leonard BBA Past President University of Colorado Denver	Urban Life

*NOTE: Questions to explore during Breakout Sessions

1. How might the ideas presented in the symposia be readily implemented in schools and classrooms?
2. How might the ideas presented in the symposia be readily accessible to family and community members, leaders, groups, and organizations?
3. How might the ideas presented in the symposia be readily integrated into education policy at the local, state, and national levels?
4. How might the ideas presented in the symposia be readily used for local, state, and national advocacy and activism?
5. What is missing at conferences? What is missing in research? What are some suggestions for future conference themes and research agendas?

Table 1: Breakout Sessions

Day	S	Presenter	Title of Presentation (partial)	Room	Floor
Fri	I	S. Lemons-Smith	Tapping into the Intellectual Capital of Black Children (with B. Williams)	Capital	2nd
Fri	I	D. White	Preparing Preservice Teachers to Educate Black Students	Lanier	2nd
Fri	I	C. Thomas	Influence of an Online Learning Community on Teacher Retention	Lucerne	2nd
Fri	II	R. Berry	Identities of Black Boys Who Are Successful With School Mathematics	Sinclair	2nd
Fri	II	B. Williams	The Value of Early Access to Mathematics (with S. Lemons-Smith)	Capital	2nd
Fri	II	C. Jett	Critical Race Theory Perspective on “Race” in Mathematics Education	460	4th
Sat	III	J. Davis	Understanding Black Student Identity at the Intersections	Capital	2nd
Sat	III	D. Martin	The Making of Black Children in Mathematics Education	Lanier	2nd
Sat	III	E. Walker	Mathematics Engagement and Socialization Within and Across Generations	Lucerne	2nd
Sat	IV	J. Leonard	Enacting Social Justice and Culturally Relevant Pedagogy	Sinclair	2nd
Sat	IV	N. Brewley	Mathematics Literacy for Liberation and Liberation in Mathematics Literacy	460	4th

Speakers & Abstracts

KEYNOTE SPEAKER

Joyce E. King, Ph.D.

Benjamin E. Mays
Endowed Chair for Urban
Teaching, Learning, and
Leadership

Georgia State University
jking@gsu.edu

In her keynote presentation, Professor King addresses the importance of both academic and cultural excellence in education and the contributions of African and African American people's heritage of mathematics excellence can make to transformative education for Human freedom.

Dr. Joyce E. King is professor of social foundations of education and holds the Benjamin E. Mays Endowed Chair for Urban Teaching, Learning, and Leadership at Georgia State University. The former provost and professor of education at Spelman College and associate provost at Medgar Evers College, Dr. King is recognized here and abroad for her contributions to the field of education, including the concepts of "dysconscious racism," "diaspora literacy" and "heritage knowledge." Her publications include four books: *Preparing Teachers for Diversity*; *Teaching Diverse Populations*; *Black Mothers to Sons: Juxtaposing African American Literature with Social Practice*; and *Black Education: A Transformative Research and Action Agenda for the New Century*. Dr. King is a graduate of Stanford University where she received a Doctor of Philosophy degree in social foundations of education and a Bachelor of Arts degree (with Honors) in sociology. She also holds a certificate from the Harvard Graduate School Institute in Educational Management.

SYMPOSIUM SPEAKERS & ABSTRACTS

Robert Q. Berry III, Ph.D.

Associate Professor
University of Virginia
Charlottesville VA
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Identities of Black Boys Who Are Successful With School Mathematics: The Follow-up Study

Dr. Berry presents findings of a follow-up study to one conducted 4 years ago. The initial study investigated the constructions of mathematics and racial identities among 32 Black fifth- through seventh-grade boys who were successful in school mathematics. The boys attend school in a southern rural school district; data collection included focus group interviews, mathematics autobiographies, review of academic records, and observations. In the initial study, four factors were identified that positively contributed to the boys' mathematics identity: (a) the development of computational fluency by third grade, (b) extrinsic recognitions, (c) relational connections, and (d) engagement with the unique qualities of mathematics. In the initial study, racial identity in school was connected to perceptions of others' school engagement; this sense of "otherness" led to a redefinition of the boys' mathematics and racial identities. In the follow-up study, interviews were conducted to investigate shifts in the boys' identities and perceptions of self. Twenty-four of the initial 32 boys reviewed transcripts and viewed short video snippets from interviews and focus groups collected during the initial study; 18 of the 24 boys showed significant shifts in their mathematical and school identities.

D. Natasha Brewley, Ph.D.

Assistant Professor
Georgia Gwinnett College
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dbrewley@ggc.edu

Mathematics Literacy for Liberation and Liberation in Mathematics Literacy

Dr. Brewley discusses the persistent efforts of two African American Young People's Project mathematics literacy workers. The Young People's Project (YPP) Chicago is a youth empowerment and after-school mathematics initiative created by young people for urban youth with the goal of expanding how mathematics is experienced in urban communities. The mathematics literacy workers are known as college mathematics literacy workers (CMLWs). The discussion aims to provide an understanding of how membership in a community of practice, the YPP Chicago, influenced how CMLWs worked toward youth achieving mathematics literacy. The community of practice and modes of belonging are used to explain ways in which CMLWs participated in YPP Chicago and subsequently, how this participation influenced their identity and their efforts of achieving mathematics literacy for and with urban youths.

James Earl Davis, Ph.D.

Professor and Interim Dean
Temple University
Philadelphia PA
jdavis21@temple.edu

Understanding Black Student Identity at the Intersections: Lessons to Learn and Un-Learn

Dr. Davis describes how the analytic potential of intersectionality has been underdeveloped and, in turn, has limited methodological and theoretical approaches to studying Black students' experiences in school. The notion of separate identity categories (e.g., "race," gender, class) is being challenged by more nuanced treatment of Black students that incorporates meaning informed by the interdependence, confluence, and community context of various identity categories. For a variety of reasons, traditional strategies for examining Black student identity continue to limit the use of intersectionality. In general, these limitations are related to two fundamental tendencies in the education literature: (a) the reluctance of researchers to fully explore how the analytic strength of intersectionality can inform identity and what is known about Black students, particularly boys and young men's engagement in mathematics and other subjects; and (b) an overreliance on simplistic uses of race to capture the cultural complexities of Black students' educational experiences. Based on quantitative and qualitative data from education-based research studies and national databases, the critical importance of intersectionality is highlighted. Examples are provided of how the analytic tool of intersectionality can offer insight about Black students and their identity development and context.

Christopher C. Jett, Ph.D.

Clinical Assistant Professor
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Atlanta GA
cjett2@gsu.edu

Critical Race Theory Perspective on "Race" in Mathematics Education

Dr. Jett explains how "race," currently and historically, is used as a construct to place various ethnic groups in a hierarchical system in the United States. Since the enslavement of Africans, African Americans in the United States have experienced this hierarchical race system that places Europeans at the top and people of color at the bottom. Additionally, race has been used to dismiss and marginalize the intellectual activity of people of African descent as well as other people of color, especially in the context of mathematics. Here, critical race theory (CRT) is used to examine the experiences of four young African American male students who successfully completed undergraduate degree programs in mathematics. Employing CRT as a theoretical lens, the "voices" of these young men are presented to better understand their mathematical experiences as racialized beings and to combat the dominant discourse surrounding African American male students as mathematically inferior. Issues of race and/or racism are brought to the forefront when investigating the experiences of the young men as African Americans in a society and institutional spaces entrenched with racism.

Shonda Lemons-Smith, Ph.D.

Assistant Professor
Georgia State University
Atlanta GA
slemonssmith@gsu.edu

Tapping into the Intellectual Capital of Black Children in Mathematics: A Critical Look at Mathematics Teacher Preparation

Dr. Lemons-Smith discusses how each year teacher preparation programs certify teachers of mathematics and decree they are capable of providing high-quality mathematics instruction to all students, regardless of race, class, gender, language, culture, or other characteristics. These programs frequently rely on a standalone multicultural course as a mechanism for addressing issues of diversity, equity, culturally responsive pedagogy, and social justice. Too often, prospective teachers do not grasp the significance and application of these ideas in core content areas like mathematics. Mathematics teacher educators must ensure that teachers not only espouse positive perspectives about Black children but also possess the pedagogical skills to tap into the valuable capital they bring to the mathematics classroom. In other words, prospective teachers must be encouraged to engage in contextual anchoring—using students' backgrounds, families, communities, lived, and out-of-school experiences to "anchor the mathematics." Anchoring draws on children's informal knowledge and experiences, makes connections, and facilitates understanding of mathematical concepts throughout instruction.

Jacqueline Leonard, Ph.D.

Professor
Past President – Benjamin Banneker Association
University of Colorado Denver
Denver CO
Jacqueline.leonard@ucdenver.edu

Enacting Social Justice and Culturally Relevant Pedagogy in Mathematics Classrooms

Dr. Leonard claims that linking social justice issues and cultural relevance to mathematics instruction is far from the norm in U.S. classrooms. Moreover, when teachers attempt to make linkages, too often they do so superficially with prescribed and scripted mathematics lessons. Providing teachers with practical and meaningful examples of how to use social justice and culturally relevant pedagogy is important if they are to latch onto these pedagogical strategies and enact them in everyday mathematics classrooms. While social justice and culturally relevant pedagogy are different and serve different purposes, both are important when it comes to teaching mathematics for self-determination and empowerment. Presented here are some theoretical underpinnings and practical examples that might assist in moving teacher educators toward pedagogies of teaching for social justice and cultural relevance. These examples emerge from the findings of a two-part teacher-research study that explored explicitly the effects on preservice and in-service teachers when teacher educators make social justice and cultural relevant pedagogical strategies a primary focus in mathematics methods courses and professional development workshops.

Danny Bernard Martin, Ph.D.

Professor
University of Illinois at Chicago
Chicago IL
dbmartin@uic.edu

Proofs and Refutations: The Making of Black Children in Mathematics Education

Dr. Martin discusses how the identities of Black children as *Black children* and as *mathematics learners* are socially constructed through a process involving conjecture, evidence, verification, and proof. Based on the ways that it has typically been used in mainstream research and policy contexts, this process has led to a commonsense and largely uncontested understanding that Black children are maladaptive in their everyday behaviors and intellectually inferior to white and Asian children in mathematics. This process is also accompanied by a logic that demands one must prove that Black children are brilliant. As a result, the brilliance of Black children in mathematics is rarely the starting point in research and policy discussions but is often framed as a *counterexample*. This model of framing Black children's identities and competencies makes it very difficult for researchers, teachers, policymakers, and the public at large to accept and invest in the idea that Black children truly are brilliant.

Christine D. Thomas, Ph.D.

Associate Professor
Georgia State University
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cthomas11@gsu.edu

Influence of an Online Learning Community on Teacher Retention in Urban Schools

Dr. Thomas provides details of The Robert Noyce: Urban Mathematics Educator Program (UMEP) at Georgia State University, a program currently in its seventh year. The goal of UMEP is to increase the number of high-quality secondary mathematics teachers who seek jobs in urban school districts and are committed to remaining in urban school environments. Providing high-quality mathematics education for all students, however, goes beyond the recruitment of knowledgeable teachers. Retention focuses on new teachers, especially those in urban areas and sustaining high-quality mathematics teachers in hard-to-hire settings. Efforts to deepen our understanding of the complex and multifaceted picture of why teachers leave and why they stay, and how efforts to retain teachers impact their work in the classroom and their decisions to stay or leave are developed through the sharing of research designs, data collection, and ongoing results. Over the duration of the project, various components of the project have been studied with respect to the influence on retention. The mentoring and support for the project's teachers are executed in a variety of formats including an online Professional Learning Community (PLC); aspects of the online PLC with respect to the influence on teacher retention are shared.

Erica N. Walker, Ed. D.

Associate Professor
Teachers College Columbia University
New York NY
ewalker@tc.columbia.edu

African Americans' Mathematics Engagement and Socialization Within and Across Generations

Dr. Walker, drawing from a longitudinal, multi-sited study of Black high achievers in mathematics, describes how academic communities facilitate mathematics engagement and socialization for both high school students and mathematicians. The study offers an intergenerational look at academic communities and how they contribute to mathematics success in multiple sites—within schools, outside of schools, and within "in-between" spaces. These communities and the engagement and socialization experiences that mathematicians and high school students describe as integral to their mathematics success operate within important racial/ethnic, social, and cultural contexts, and for mathematicians, historical contexts as well. For both sets of participants, findings are presented that demonstrate the power of academic communities across multiple settings to facilitate identity development and mathematical excellence. Given the preponderance of research that reifies the status of African Americans in mathematics education as "low achievers," this work offers new perspectives on how communities broadly defined can and do support mathematical excellence. It sheds light on the often unrecognized and undervalued communities that students bring with them to school which support their academic and mathematical work. Finally, to foster better teaching and learning for all children, this work encourages a rethinking of how and where mathematics education occurs.

Dorothy Y. White, Ph.D.

Associate Professor
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Athens GA
dywhite@uga.edu

Preparing Preservice Teachers to Educate Black Students: The Role of Multicultural Mathematics Dispositions

Dr. White argues that to educate all students in general and Black students in particular, preservice teachers need to develop culturally receptive and critical dispositions in mathematics. These dispositions are termed *multicultural mathematics dispositions* (MCMD). MCMD are based on three dispositional factors: (a) openness to the role of culture in the teaching and learning of mathematics; (b) self-awareness/self-reflectiveness of one's own culture, its relation to other cultures, and the mathematics classroom cultures experienced; and (c) commitment to using culturally responsive pedagogy to teach mathematics. Here, the construct of MCMD is introduced and described with particular attention to the role of MCMD in the preparation of teachers of Black students. Findings from a study to discover preservice teachers MCMD during a mathematics methods course are then presented to illustrate how these dispositions are evidenced in preservice teachers. To conclude, a discussion of the importance of MCMD in the preparation of teachers and implications for teacher education programs and research is provided.

Brian A. Williams, Ph.D.

Assistant Professor
Georgia State University
Atlanta GA
bawilli@gsu.edu

Cultivating Success: The Value of Early Access to Mathematics in the Lives of African American Children

Dr. Williams discusses how many scholars identify the "gap" that exists on standardized assessments between African American students and their White and Asian peers as the "achievement gap," while others have chosen to point to gaps in the services provided by the educational systems that limit the opportunities for African American children to perform at their highest potential. The historical and persistent lack of opportunities has prompted some researchers to critically examine those factors that contribute to the success of African American students in mathematics in spite of the lack of opportunities. Here, a study designed to explore the early childhood experiences of successful African American mathematicians is outlined. Specifically, the study answers the following questions as they pertained to mathematical successful African American students: What factors were perceived to have contributed to the students' early interest in mathematics? What factors, related to early childhood schooling experience, were perceived to have contributed to the students' success in mathematics? Findings of the study have direct implications for the educational community's understanding and utilization of culturally relevant pedagogy, early access to mathematics, positive personal interventions, and successful experiences in mathematics.

OTHER PLATFORM SPEAKERS

Presidents

Cheryl Adeyemi, Ph.D.

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Linda Gojak

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CONFERENCE VOLUNTEERS

GSU Mathematics Education:
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- Iman Chahine, Ph.D.

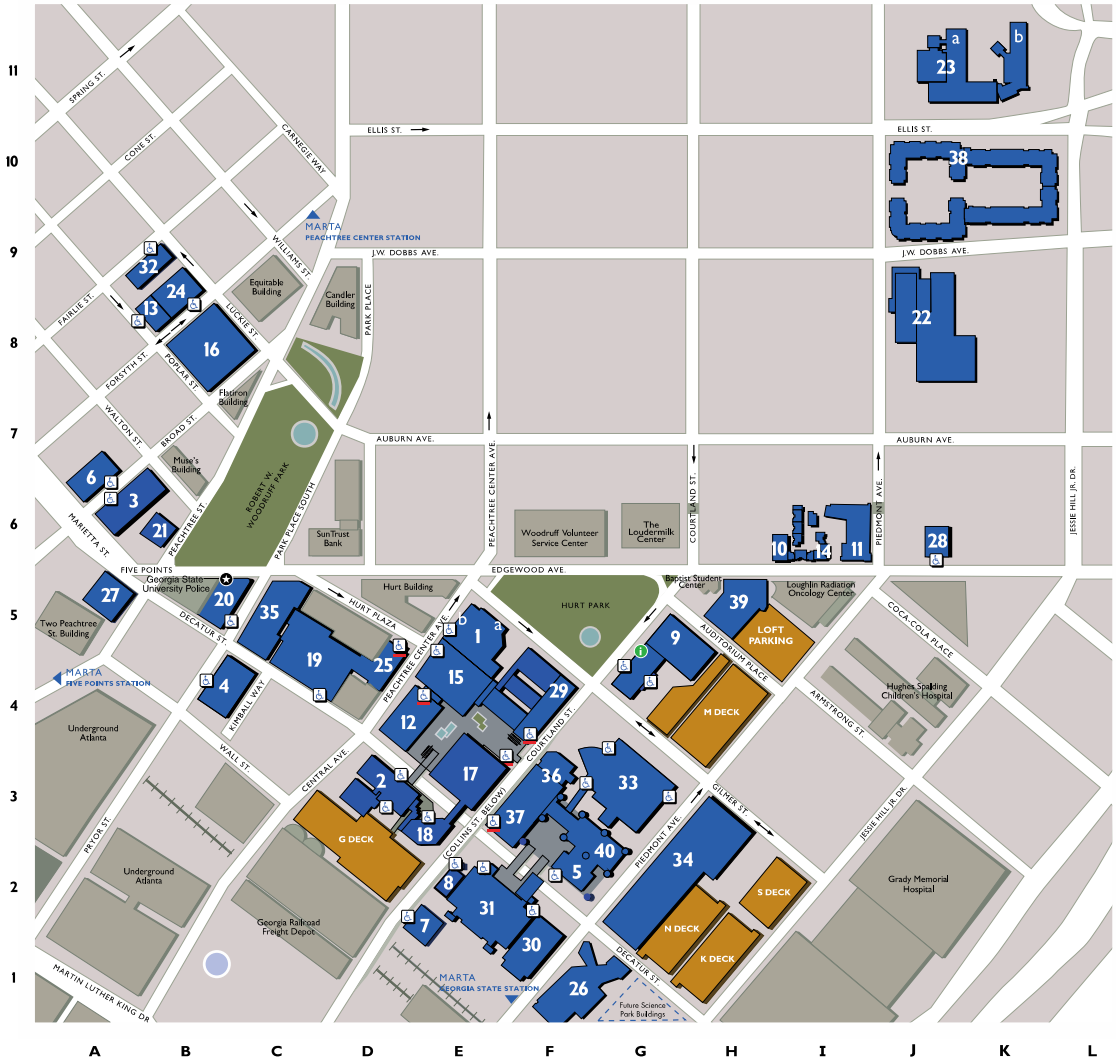
Doctoral Students

- Stephanie Byrd
- Jacqueline Hennings
- Alanna Johnson
- Kori Maxwell
- Patrice Parker

Master's Students

- Lauren Frazier

Campus Map



1 ARTS & HUMANITIES (ARTS) **E5**
2a Florence Kopleff Recital Hall
2b Ernest G. Welch Gallery
2 CLASSROOM SOUTH (CLSO) **D3**

J. MACK ROBINSON
3 COLLEGE OF BUSINESS (RCB) **A6**
4 COLLEGE OF EDUCATION (COE) **B4**
5 COLLEGE OF LAW (LAW) **F2**

BENNETT A. BROWN
6 COMMERCE BUILDING (BBCOM) **A7**
7 COURTLAND BUILDING (COURTB) **E2**
8 COURTLAND NORTH (COURTN) **E2**
9 DAHLBERG HALL (DBERG) **G5**
10 148 EDGEWOOD (148EDG) **I6**
11 FRESHMAN HALL (FRHALL) **I6**
12 GENERAL CLASSROOM (GCB) **D4**
13 HASS-HOWELL BUILDING (HASS) **B8**
14 INTEREST HOUSING (INTHOU) **I6**
15 KELL HALL (KELL) **E4**

HELEN M. ADERHOLD
16 LEARNING CENTER (ADHOLD) **B8**
17 LIBRARY NORTH (LIBNO) **E3**
18 LIBRARY SOUTH (LIBSO) **E3**
19 NATURAL SCIENCE CENTER (NSC) **C5**
20 ONE PARK PLACE (1PP) **B5**
21 34 PEACHTREE ST. BUILDING (34PTRE) **B6**
22 75 PIEDMONT (75PIED) **J9**
23 PIEDMONT NORTH **K11**
41a Piedmont North Bldg A (PIEDNA)
41b Piedmont North Bldg B (PIEDNB)
24 RIALTO CENTER FOR THE ARTS (RIALTO) **B9**
25 SCIENCE ANNEX (SCIANX) **D4**

PARKER H. PETIT
26 SCIENCE CENTER (PETIT) **F1**

ANDREW YOUNG
27 SCHOOL OF POLICY STUDIES (AYSPS) **A5**
28 SCULPTURE STUDIO (SCULP) **J6**
29 SPARKS HALL (SPARKS) **F4**
30 SPORTS ANNEX (SPTANX) **F1**
31 SPORTS ARENA (ARENA) **E2**
32 STANDARD BUILDING (STAND) **B9**
33 STUDENT CENTER (STUCTR) **G3**
34 STUDENT RECREATION CENTER (REC) **G2**
35 TEN PARK PLACE (10PP) **C5**
36 UNIVERSITY BOOKSTORE (BOOK) **F3**
37 UNIVERSITY CENTER (UCTR) **F3**
38 UNIVERSITY COMMONS (COMMON) **K10**
39 UNIVERSITY LOFTS (LOFTS) **H5**
40 URBAN LIFE BUILDING (URBAN) **G2**

Special Issue:

Journal of Urban Mathematics Education

Proceedings of the 2010 Philadelphia and 2011 Atlanta Benjamin Banneker Association Conferences - Beyond the Numbers

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