

LEADERSHIP IN MATHEMATICS EDUCATION

Considerations *for* Transformational Conversations

Transformational conversations can prove to be challenging. Cultural norms, implicit bias, unproductive beliefs and/ or discomfort can distract or derail the conversation. This series is designed to serve as a starting point for leaders who endeavor to strengthen institutional culture by engaging stakeholders in transformational conversations. Each **conversation** of the series is written to provide leaders with some background knowledge, tools, and resources as they prepare to engage with a specific sensitive topic.

HAVING A CONVERSATION ABOUT BIAS WITH INSTRUCTIONAL LEADERS OF MATHEMATICS

Topic: The impact of bias on students' mathematics identity and agency and, therefore, student achievement

Audience: Central Office Mathematics leaders, Building Administrators, Mathematics Specialists, Mathematics Teachers, Mathematics Instructional Coaches and all others who influence mathematics instruction

PURPOSE OF THE CONVERSATION

There are many factors to consider when developing a classroom culture and environment designed to nurture students' mathematics identity and agency. At the heart of this work is the task of building positive, productive, and supportive teacher-to-student and student-to-student relationships, which is often dependent on two critical factors, "Who is teaching?" and "Who are the learners?" (Johnson and Williams, 2015). Thus, having conversations that support teachers as they identify, monitor, and begin to address their implicit biases allows them to not only look in the mirror at themselves but to also learn about their students.

WHY HAVE THIS CONVERSATION

Leadership of self is one of the first responsibilities of a bold mathematics leader (NCSM, 2020). The personal and professional experiences that make up your identity play a role in how you show up. As leaders, our actions—the outward representation of our beliefs, attitudes, and mindsets—show up in how we treat, speak to, listen to, respond to, and interact with others including students, colleagues, families/caregivers, and education/community stakeholders. In this conversation, we want to emphasize that the work of both self-awareness and self-reflection, for the purpose of conscious instructional practice, is essential in serving students whose cultural reference points for learning differ from dominant norms and expectations.

It is through reflective engagement that mathematics leaders gain insight into how our actions, and inaction, impact all who are involved with the teaching and learning of mathematics through:

- 1) advocating for high-quality, equitable mathematics teaching and learning;
- 2) designing of structures to support access and equity; and
- 3) co-powering and nurturing a culture where all learners are valued.

This insight begins by uncovering our own implicit biases and then assessing how these biases both create and limit opportunities for learning. We need to assess who is advantaged and who is disadvantaged by our bias as well as consider how we will mindfully monitor them and interrupt limiting practice.

CULTURAL NORMS THAT MAKE THIS A CHALLENGING BUT ULTIMATELY TRANSFORMATIONAL CONVERSATION

All teachers and leaders have biases. What matters is that we have both awareness and process for mitigating negative impact or harm. To address our bias, we need to engage in the essential actions of intentional reflection and practice.

These cultural norms are written to illustrate challenges leaders may face when engaging in this conversation:

- Teachers are infrequently encouraged to understand their classroom behaviors/actions as a function of their broader series of lived experiences.
- The practice of making assumptions based on stereotypes is something people often do when they are not engaged in deliberate practice to interrupt bias.
- Teachers, like other professionals, are often not engaged during preparation or professional learning to understand bias as a phenomenon with which they have accountability for mitigating.

UNPRODUCTIVE BELIEFS YOU SHOULD BE PREPARED TO HEAR AND SUGGESTIONS FOR HOW TO RESPOND TO THEM

Unproductive Beliefs:

• My biases are personal, and I cannot take responsibility for how they show up in the classroom.

• I don't have biases that I bring into the mathematics classroom. I treat all kids the same.

GROUNDING ACTIVITY ONE: TO ELEVATE AWARENESS OF BIAS

Purpose – The purpose of this activity is to lead teachers through a process of identifying and reflecting on their personal biases that might show up in the classroom.

Audience – This activity is designed for use with mathematics teachers, teacher leaders, and building leaders.

Activator – In preparation for this discussion, ask participants to watch *How Racial Bias Works*, Jennifer Eberhardt. (<u>https://www.youtube.com/watch?v=rVNb53lkBuc</u>) The purpose of the activator is to provide insights and context on implicit bias.

Activity Resources – Use the <u>PowerPoint</u>, (<u>https://tinyurl.com/biasandmathinstruction</u>) and begin with Part 1: *Who Am I?*, to facilitate reflection and understanding of terms related to bias and implicit bias. <u>Unpacking Bias</u> <u>Vocabulary Sort</u> – Use this activity to build participant knowledge of vocabulary. (<u>https://docs.google.com/</u> <u>document/d/1fMQPpWYvf7Tc2aukxXx_MmI33JmkhSAw/edit</u>)

Suggested Norms

- Stay engaged.
- Experience discomfort.
- Speak your truth.
- Expect and accept non-closure.
- Share the airtime. (step up/step back)

Adapted from Glenn E. Singleton & Curtis Linton, Courageous Conversations about Race: A Field Guide for Achieving Equity in Schools. 2006. pp.58–65. Thousand Oaks, CA: Corwin.

Procedures

- 1. Mathematics Identity and Agency (slide 2) Show the definitions of *mathematical identity* and *mathematical agency*. These definitions will serve a common language to be referenced throughout this professional learning and during discussions.
- 2. What role does a teacher's bias play in shaping students' mathematics identity and agency? (slide 3) Pose the question, "What role does bias play in shaping students' mathematics identity and agency?" Use a think-pair-share (or similar) discussion protocol to allow for individual reflection and discussion.

3. Unpacking Bias

Use slide 4 to introduce the <u>Unpacking Bias Vocabulary Matching activity</u>. Provide each pair or group a set of cards and have participants match the concept (bold) with the *description (italics)*. Tell them to think about a personal or professional example of each concept to share during the group debriefing.

 Use slide 5 as you unpack the underlying concepts of bias. Note, animations match the order listed and reveal the concept and description. State the concept, ask for the matching description, click to show and then have participants share their example. Encourage them to use the example for Preferences/Aversions as the other concepts are unpacked.

Concept	Description
Preferences	Our likes
Aversions	Our dislikes
Prejudices	Attitudes we have about social groups
Stereotypes	Beliefs we have about social groups
Association	Linking people to characteristics of social groups
Categorization	Grouping like things together
Bias	

• Share the following with participants, "You may have noticed that a description was not provided for one concept—Bias. As we continue, think about how the six concepts relate to bias."

4. What We See, Think, and Do... (slide 6)

Ask participants to reflect on the essential question, *What role does bias play in shaping students' mathematics identity and agency?* as you present these four statements:

- Bias conditions how we look at the world and the people within it.
- We have a bias when, rather than being neutral, we have a preference for (or aversion to) a person
 or group of people. Thus, we use the term "implicit bias" to describe when we have attitudes
 towards people or associate stereotypes with them without our conscious knowledge. (Colorado,
 Department of Education)
- Bias, even when we are not conscious of it, has consequences that we need to understand and mitigate. The stereotypic associations we carry in our heads can affect what we perceive, how we think, and the actions we take. (p. 48)
- The plague and power of bias are too consequential to let them go unacknowledged and unchecked. They can affect us in surprising ways. (p. 30)

<u>Eberhardt, Jennifer L. (2019)</u>. Biased: Uncovering the Hidden Prejudice That Shapes What We See, Think, and Do

 Tell them to select one statement that resonates with them and an action they may consider taking. Look for participants to connect the understanding concepts of bias to their interactions with or responses to students and possible actions/changes they plan to make. Have a few participants share out.

GROUNDING ACTIVITY TWO: TRANSFORMATIVE ACTION TO MONITOR AND ADDRESS IMPLICIT BIAS

Purpose – The purpose of this activity is to lead teachers through a process to connect and consider how their biases impact the development of students' mathematics identity and agency.

Audience – This activity is designed for use with mathematics teachers, teacher leaders, and building leaders.

Activity Resources – Use the <u>PowerPoint</u>, (<u>https://tinyurl.com/biasandmathinstruction</u>) and begin with Part 2: *Dealing with My Biases* (**slide 7**), to facilitate reflection and understanding of bias and implicit bias.

Procedures

1. Mathematics Identity and Agency

Share with participants this definition of Mathematical Identity and Agency **(slide 8)**, which is similar to the first one, and remind them of the importance of connecting our conversations to our students.

2. Essential Questions (slide 9)

Present the following questions to participants:

- How can we uncover our own biases?
- What implicit biases must we address?

Tell participants to continue to connect the conversations about bias to supporting the development of students' mathematics identity and agency.

3. Show the video, "Peanut Butter and _____" <u>https://sitesed.cde.state.co.us/mod/book/view.php?id=8030&chapterid=8126</u> as an activator that connects to activity 1.

4. From Association to... (Slide 10)

Provide the list below and instruct teachers to write down the first thing that comes to mind.

- a. A student who does not raise their hand to respond to questions.
- b. A student who completes homework on a regular basis.
- c. A student who does not quickly respond to number fact type of questions.
- d. A student who does not seek/accept help when they appear to be struggling in class.
- e. A student who has been performing poorly on assignments and assessments and then passes a major assessment.
- f. A student who has been performing well on assignments and assessments and then fails a major assessment.
- g. A student who is an outstanding athlete on several school teams.
- h. A student that never completes homework.

5. Your Ideal Student (Slide 11)

Give participants a few minutes to draw or think about their ideal student, then show the questions on the slide and ask them to silently reflect.

6. Student Voices (slide 12)

- Ask, How do the voices of students show the importance of our conversations around bias and the need for us to address implicit bias?
- Have a brief discussion, prompting participants to consider the "ideal student" slide 11, the "voice of the student" slide 12, and their students.

7. Reflection (slide 13)

Show participants the reflection questions and encourage them to write a response.

8. Commitment (slide 14)

Have participants share thoughts about the student voices, their reflections, or an action they plan to take to monitor their own biases and address implicit biases.

IN SUMMARY

Students, especially those from historically marginalized communities, benefit from instruction provided by teachers who have critical consciousness and awareness of themselves, a sense of blind spots they hold, and a focus on developing their skill as teachers of mathematics in a way that supersedes their content expertise. This brief is designed to offer essential think-abouts for practitioners.

In summary, this brief seeks to elevate and examine how bias can impact issues of equity and access related to mathematics achievement and identity. It is essential that practitioners have processes for self reflection, interrogation of instructional practice, and a mechanism for engagement in conversations that may be both challenging and uncomfortable.

ADDITIONAL RESOURCES TO PREPARE FOR THIS CONVERSATION

Eberhardt, Jennifer L. (2019). Biased. Viking, New York, New York.

Johnson, Kendra and Williams, Lisa, (2015). *When Treating All the Kids the Same is the Real Problem*. Corwin Publishing, Thousand Oaks, CA.

NCSM (2020). NCSM essential actions: Framework for leadership in mathematics. Englewood, CO: NCSM.

Tatum, Beverly D. (2017). *Why are All The Black Kids Sitting Together in the Cafeteria?* Basic Books, Hachette Book Group, New York, New York.

CONTRIBUTORS

Author: John Staley Ph.D., Coordinator, Baltimore County Public Schools and Lisa Williams, Ed.D. Chief Equity Officer, Fairfax County Public Schools



John has been involved in mathematics education for over 30 years as a secondary mathematics teacher, district leader, adjunct professor, and consultant. In his current role, Coordinator of Special Projects in Baltimore County Public Schools, his primary work involves supporting schools in the continuous improvement process. He earned his Bachelor of Science in Mathematics from the University of Maryland, College Park; Masters in Secondary Education from Temple University; Ph. D. from George Mason University in Mathematics Education Leadership.

During his career he has presented at state, national, and international conferences; served on many committees and tasks forces; facilitated workshops and professional development sessions on a variety of topics; and received the Presidential Award for Excellence in Teaching Mathematics and Science. A past president for NCSM: Leadership in Mathematics Education and past chair of

the U.S. National Commission on Mathematics Instruction, he continues to serve on several advisory boards. He has written several articles and was part of the writing teams for Catalyzing Change in High School Mathematics: Initiating Critical Conversations (NCTM, 2018), Framework for Leadership in Mathematics Education (NCSM, 2020), and High School Mathematics Lessons to Explore, Understand, and Respond to Social Injustice (Corwin Publishing and NCTM, 2020).

John's current passion and work focuses on projects that involve Changing the Narrative about who is seen as being doers and learners of mathematics: developing student readiness for Algebra in grades K–8; transforming high school mathematics and the transition years; and building mathematics education leaders at all levels.

Dr. Lisa Williams



Dr. Lisa Wiliams is Chief Equity Officer for the Fairfax County Public Schools. In this role, she directs all professional development, family engagement, Title I support, and other community and community supports for the Fairfax schools. Dr. Williams has held the position of teacher, mentor, university professor, and Title I director and executive director over her career in education. She has bachelors' degrees in biology and psychology, a master's in psychology, and a doctorate in Urban Educational Leadership with an emphasis in social policy. She has presented at the local, state, and national level on topic related to improving outcomes for marginalized student populations.

Her dissertation study examined Responsive to Intervention (RtI) and the performance of students attending Title I schools. Dr. Williams lead district-wide



equity initiatives in the Department of Equity and Cultural Proficiency for over 10 years in the Baltimore County School System. Additionally, Dr. Williams is a consultant with the National Alliance for Partnerships in Equity (NAPE). In her former role, she was responsible for all educational equity and access initiatives implemented in the Baltimore County School System. She has expertise in the areas of educational equity, culturally responsive practice, and school transformation.

Her first book, *When Treating all the Kids the Same is the Real Problem: Educational Leadership and the 21st Century Dilemma of Difference* (co-authored with Dr. Kendra Johnson, Esq.) was released in October 2014. Dr. Williams is the Board President for the organization, Restorative Response Baltimore. She has both and independent consulting company, EMCS and is a partner in an Equity collective EEP, both organizations focus on capacity building to dismantle systems of oppression that operate in social services organizations. Her second book (with EEP) *Humanity over Comfort: How you confront systemic racism head on* will be released in October 2021.