

Who am I? Unpacking Bias

Grounding Activity One: *Awareness & Acknowledgement*

Mathematical Identity and Agency

Mathematical Identity – the dispositions and deeply held beliefs that students develop about their ability to participate and perform effectively in mathematical contexts and to use mathematics in powerful ways across the contexts of their lives.

(Impact of Identity, p. 14)

Mathematical Agency – the expression of one's identity. (Murrell, 2007)

- Engage in productive struggle.
- Take risks to make their mathematical thinking visible.
- Understand that learning results when they successfully leverage an approach that works for them.

(Catalyzing Change, p. 28)

Essential Question

What role does **bias** play in shaping students' mathematics **identity** and **agency**?

Unpacking Bias

Categorization

Stereotypes

Association

Bias

Prejudices

Preferences

Aversions

Unpacking Bias

Categorization -

grouping like things together

Association -

linking people to characteristics of social groups



Bias

Stereotypes -

beliefs we have about social groups

Prejudices -

attitudes we have about social groups

*Preferences
- our likes*

*Aversions -
our dislikes*

What We See, Think, and Do...

What role does bias play in shaping students' mathematics identity and agency?

1. *Bias conditions how we look at the world and the people within it.*
2. *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)*
3. *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)*
4. *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)*

[Eberhardt, Jennifer L. \(2019\). Biased: Uncovering the Hidden Prejudice That Shapes What We See, Think, and Do](#)

Dealing with My Biases

Grounding Activity Two: *Action & Accountability*

Mathematics Identity and Agency

“Mathematics identity is defined as how these learners see themselves mathematically and how they are seen by others (teachers, parents, and peers) as doers of mathematics. It also refers to a perception of self as a participant in mathematics.

Agency is one’s identity in action and the presentation of one’s identity through participating in mathematics in personally and socially meaningful ways. Teachers support students’ identities and sense of agency in values that they communicate through their words and actions.”

Robert Berry (2018)

Essential Questions

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

From Association to ...

Write down the first thing that comes to mind for each statement.

- 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.

Draw a picture of your ideal student

What is their gender?

What is their race?

How do they behave?

How does their family show up?

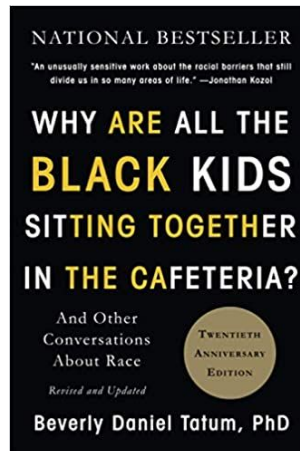
What are their beliefs about their math identity and math agency?

Student Voices

What implicit biases must we address?

The concept of **Identity** is a complex one, shaped by individual characteristics, family dynamics, historical factors, and social and political contexts.

1. Who am I? The answer depends in large part on who the world around me says I am.
2. Who do my parents say I am?
3. Who do my peers say I am?
4. What message is reflected back to me in the faces and voices of my teachers, my neighbors, store clerks?
5. What do I learn from the media about myself?
6. How am I represented in the cultural images around me?
7. Or am I missing from the picture altogether? (p. 99)



Reflection

1. What have I learned about myself?
2. How might my inclinations be creating unintentional challenges for my students?
3. What practice can I observe that creates daily awareness and engagement to disrupt negative impact?
4. How can I engage with students with both vulnerability and transparency so that I might receive feedback that closes the distance between intent and impact?

Commitment

How will I hold yourself accountable to make a difference?

...equity in mathematics *education* will not be *achieved until* it is no longer possible “to predict mathematics achievement and participation based solely on student characteristics such as race, class, ethnicity, sex, beliefs, and proficiency in the dominant language.

(Gutiérrez 2002b, p. 153)