

7 Practices To Make Your Math Class More Equitable

Webinar Tips



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Meet Your Presenter



Dr. Kyndall Brown
Executive Director
California Math Project

What You Will Learn

- 7 principles that help disrupt inequitable math teaching practices
- How to recognize stereotypes of diverse mathematics learners
- How to use the ICUCARE equity framework to reduce the effects of negative stereotypes of diverse mathematics learners
- Instructional strategies that help assess, activate, and/or build on students' prior knowledge

ICUCARE Framework

Include others as experts

Create classroom environments that extend beyond the teacher as the sole authority to develop competence and confidence in others as experts, including the students themselves.

Be **C**ritically Conscious

Take the time to understand how negative stereotypes impact your students and actively work to erase the effects of those negative stereotypes on the educational outcomes of diverse learners.

Understand your students well

Learn about your students, their families and their communities for the purpose of improving instruction. (Not making assumptions)

Use **C**ulturally relevant curricula

Use instructional materials in ways that help students see themselves as doers of mathematics and help them to overcome the stereotypes and messages regarding who is mathematically smart.

Assess, Activate and build on prior knowledge

Value the prior knowledge that students bring to the classroom, both personal and cultural, and use that knowledge as a resource for creating new knowledge.

Release control

Empower your students to take ownership of their own learning by focusing on sensemaking and allow them to make choices about things that are important to them in the classroom.

Expect more

Hold high expectations for all students and avoid deficit views of diverse learners.

Include others as experts

Create classroom environments that extend beyond the teacher as the sole authority to develop competence and confidence in others as experts, including the students themselves.



Be Critically conscious

Take the time to understand how negative stereotypes impact your students and actively work to erase the effects of those negative stereotypes on the educational outcomes of marginalized students.



Black Professionals Matching Activity

Match each occupation with the corresponding number of Black professionals in the US.

26,780

Black Dentists

6,254

**Black Professional
Athletes**

1,848

Black Lawyers

67,601

Black Doctors

Black Professional Athletes, Dentists, Doctors, and Lawyers

- There are 1,848 black professional athletes in the U.S.
- There are 6,254 black dentists in the US.
- There are 26,780 black doctors in the US.
- There are 67,601 black lawyers in the US.

Stereotypes

- Stereotypes are like smog in the air. They are everywhere!
- We all breathe them in, not because we want to, but because it's the only “air” available.
- Even though we didn't create the smog, we must all be responsible for cleaning it up!

Beverly Daniel Tatum, Why are All the Black Kids Sitting Together in the Cafeteria?: and Other Conversations about Race

What is the impact of negative stereotypes?



<https://www.youtube.com/watch?v=iOLdxZC3Yp8&t=7s>

What is the impact of negative stereotypes?

Negative stereotypes get internalized

Limited career options



How can we overcome stereotype threat?

- Improve cross-group interactions
- Provide wise feedback
- Create a classroom that fosters a growth mindset



How can we overcome limited career options available to marginalized students?

- Representation matters!
- Diverse role models in a variety of careers, especially STEM
- Diverse teachers and other leaders
- Diverse curriculum materials



We cannot overcome the impacts of negative stereotypes by being “colorblind.”



Understand your students well

Learn about your students,
their families and their
communities for the purpose of
improving instruction.

(Not making assumptions)



Use Culturally Relevant Curricula

Use instructional materials in ways that help students see themselves as doers of mathematics and help them overcome the negative stereotypes and messages regarding who is mathematically smart.



Assess, activate, and build on prior knowledge

Value the prior knowledge that students bring to the classroom, both personal and cultural, and leverage that knowledge as a resource for creating new knowledge.



Assess, activate, and build on prior knowledge

Low Floor-High Ceiling Tasks

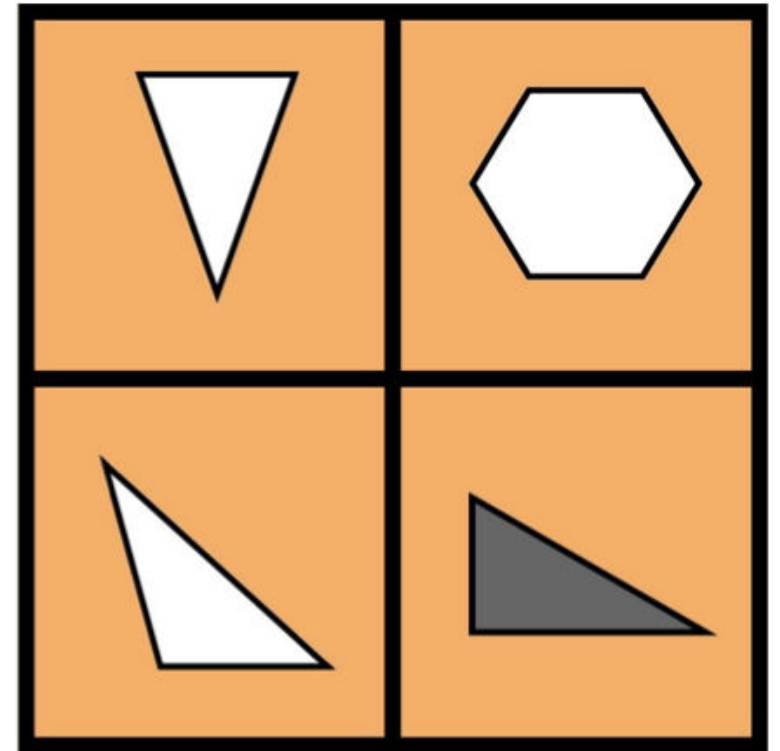
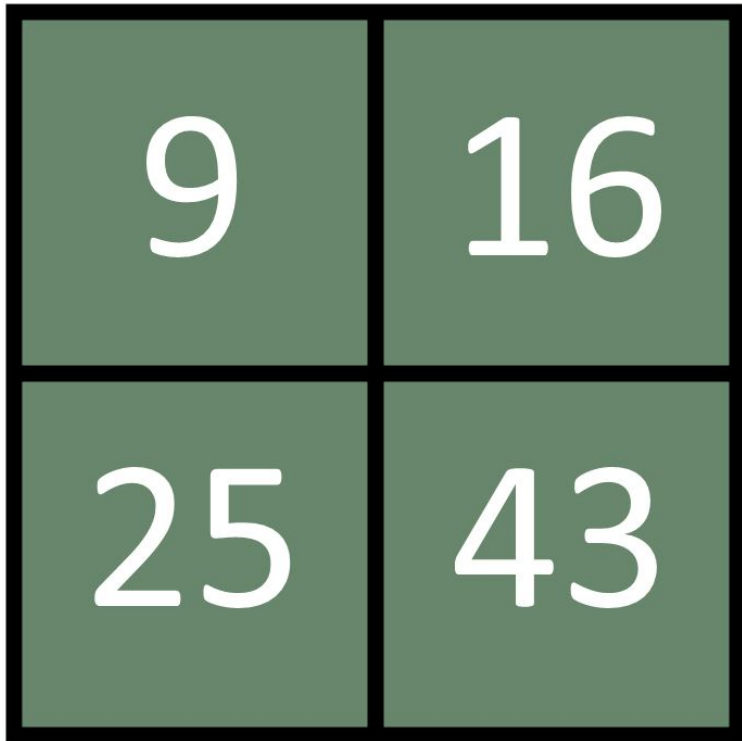
- Cognitively Demanding
- Multiple entry points
- Multiple solution strategies



Assess, activate, and build on prior knowledge

Low Floor-High Ceiling Tasks

Which One Doesn't Belong?

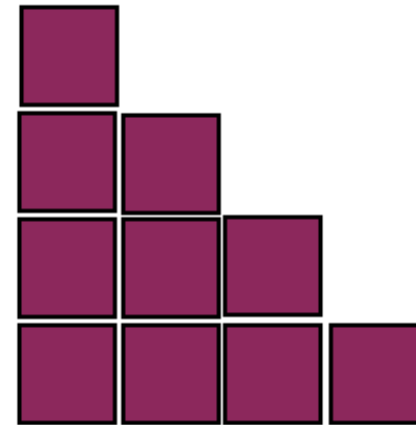
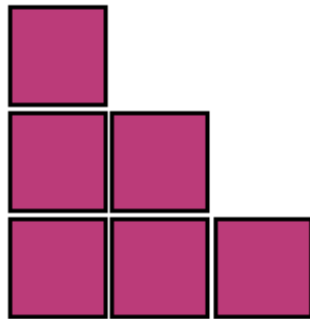
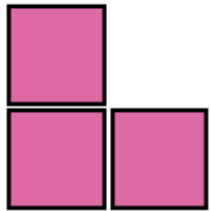


Assess, activate, and build on prior knowledge

Low Floor-High Ceiling Tasks

Growth Pattern Tasks

How many tiles are in the next shape?



Formative Assessment

White Boards



Error Analysis-Where's the Error?

Error Analysis - Example
Where's the Mistake?

Question: $72.6 \times 28.3 =$

Find the Error:

$$\begin{array}{r} 72.6 \\ \times 28.3 \\ \hline 2178 \\ 58080 \\ + 145200 \\ \hline 20544.8 \end{array}$$

Model the Correct Solution:

$$\begin{array}{r} 72.6 \\ \times 28.3 \\ \hline 2178 \\ 58080 \\ + 145200 \\ \hline 2054.58 \end{array}$$

Empathy Interviews

- Focus on student strengths
- Inquire about outside of school activities



Release Control

Empower your students to take ownership of their learning by focusing on sensemaking and allow them to make choices about things that are important to them in the classroom.



Expect More

Hold high expectations for all students, and avoid deficit views of diverse learners.



Call to Action

- What are some specific actions steps you can take this week to implement something you learned from today's session?
- What person you will ask to hold you accountable for completing these action steps?



The banner features a green arrow pointing left, containing the text 'Online Math Academy'. The background of the banner is a collage of mathematical symbols, numbers, and geometric shapes in shades of blue and purple.

Online Math Academy

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What questions
do you have?

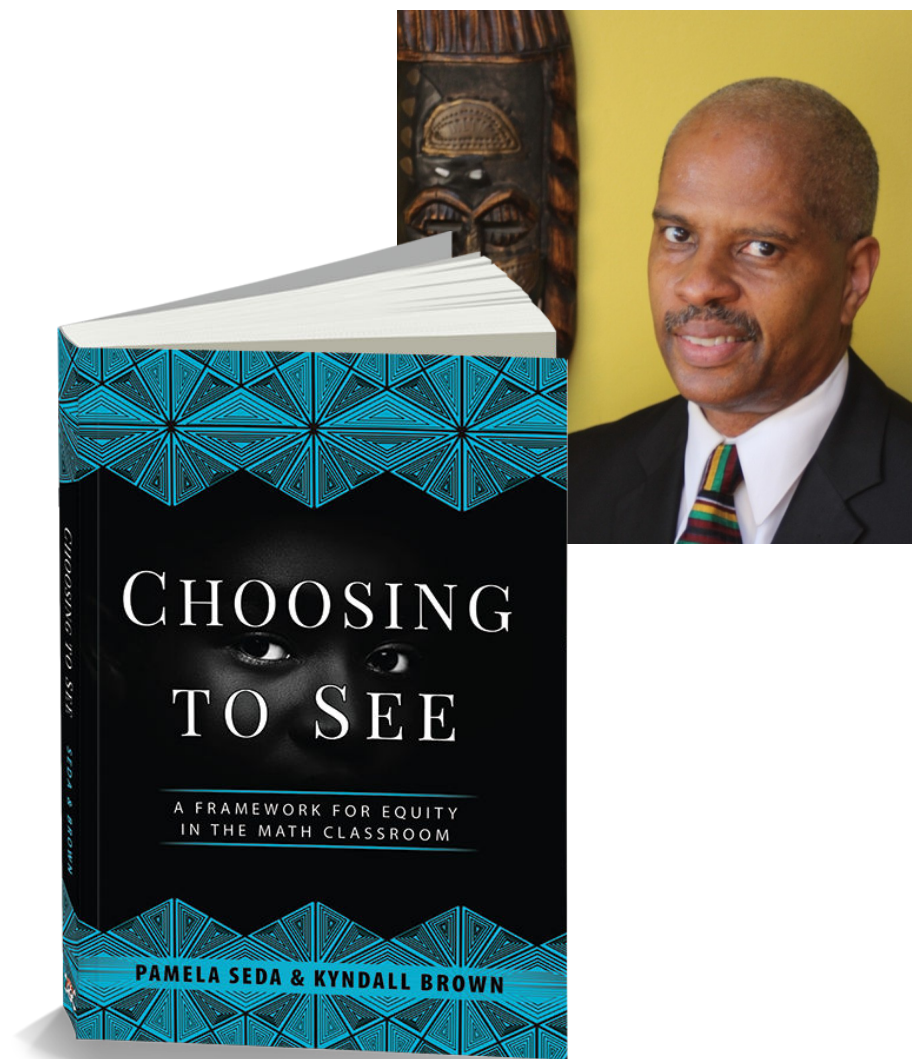


Thank You!

Get in touch:

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www.cmpso.org



Questions?



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