

Equity-Based Mathematics Teaching Practices Embedded in Different Components of a Mathematics Classroom.

WELCOME!



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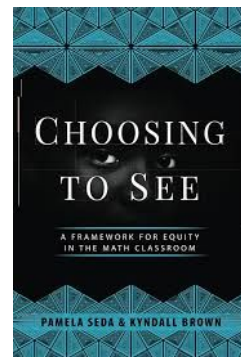
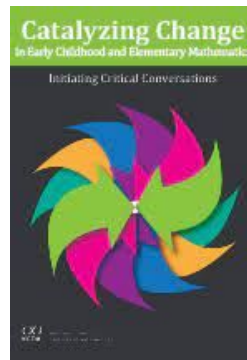
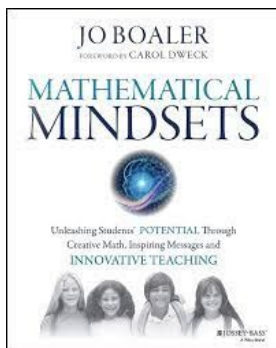
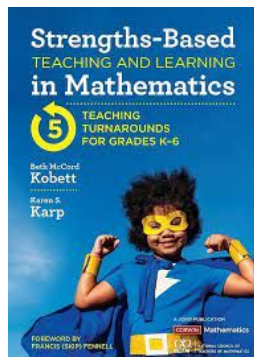


Outcomes

- Gain a common understanding of three categories of equity-based mathematics teaching practices: reflecting, noticing, and engaging in community.
- Experience how equity-based mathematics teaching practices are embedded into the different parts of the mathematics block.

Equity-Based Mathematics Teaching Practices

- Reflection
- Noticing
- Engaging in Community



REFLECTION



Equity-based teaching requires a substantial amount of reflection, which involves not just reflecting on your pedagogy and your classroom norms, but also considering how you identify yourself and how others identify you (NCTM, 2014).

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REFLECTION

What kind of dispositions do I hold towards teaching, students, mathematics, and the profession?

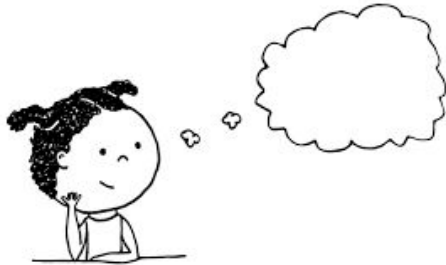
Do I view all students as holding mathematical knowledge and their abilities to mathematize their world?

I am able to engage my students in developing meaningful and positive identities through mathematics?

Does my actions and what I say align with my beliefs and how I feel about my students?



NOTICING



Student
Thinking



Student
Strengths

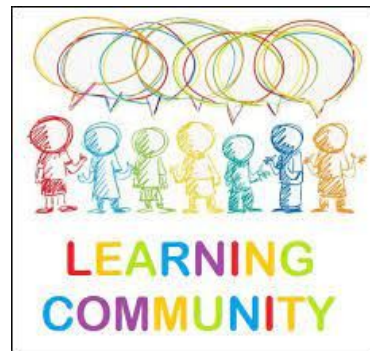


Student
Identity



ENGAGING

- Forging a mathematics community in the classroom
- Building your teaching community





Student Learning Outcome

I am learning how to recognize when to use addition or subtraction to solve practical problems.

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Sense Making Routine (True or False)

$$8 + 5 = 5 + 8$$

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Sense Making Routine (True or False)

$$7 - 3 = 3 - 7$$

Kai has a coin collection. There are _____ pennies in her collection.
Kai's mom gave Kai some more pennies. Now Kai has _____ pennies!
How many pennies did Kai's mom give Kai?



Kai has a coin collection. There are _____ pennies in her collection.
Kai's mom gave Kai some more pennies. Now Kai has _____ pennies!
How many pennies did Kai's mom give Kai?

What is happening
in this problem?

What do you
wonder about?

What do you
notice?

What questions do
you have?

What do you know?

What do I need to
find?

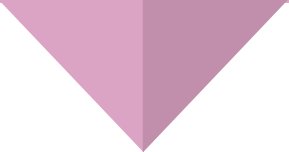


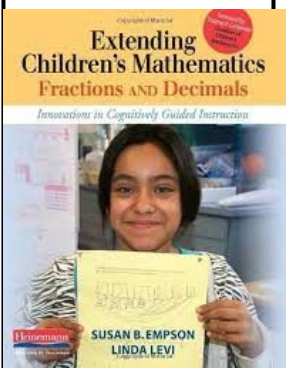
RNE within Sense Making Routine and Focus Lesson

Noticing: What teaching moves attended to student's mathematical thinking?

Community: What norms were communicated in this experience?

Turn and Talk



<u>Fraction Counters</u>	<u>Treasure Hunt</u>	<u>Open Middle</u>	<u>Fraction Games</u>	<u>Fair Share Problems</u>	Teacher
					



Reflection

On a post-it, write

- 1 thing you learned today
- or
- 1 question that you have related to today's math content.



RNE within Station Activities and Reflection

Noticing: How was student voice invited into the classroom?

Community: In what ways were students positioned as engaged contributors?

Turn and Talk

Bring it All together

Reflection: *What kinds of dispositions do I hold towards teaching, students, mathematics, and the profession? Do I advocate for my students and for other teachers on a regular basis?*

Noticing: *How do I listen to my students, particularly students who might have little voice in school? How might I integrate mathematical counter-narratives into and across my curriculum?*

Engaging: *What kinds of norms operate in my classroom? Do I create opportunities for students to contribute regularly, particularly students with different home languages and/or mathematical backgrounds?*

Thank you!



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TREASURE HUNT

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OPEN MIDDLE

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FAIR SHARE

FAIR SHARE



FRACTION GAMES

FRACTION GAMES



COUNTERS
FRACTION

FRACTION
COUNTERS