Making Math Culturally Relevant Through Experiential Learning

Introduce yourself in the chat:
Name, where you're from

Put questions in the
Q&A tab below

Welcome!

We are Bree Pickford-Murray and Kevin Davis

@btwnthenumbers
@mr_davis_math

...Two strangers who met on the internet

Special Thanks to:

Chris Fancher, *@cfanch*

Telannia Norfar, *@thnorfar*

Carl Oliver, *@carloliwitter*

Zoe Rothenberger, *@ACUTEmathteach*

Sunil Singh, *@mathgarden*

1

Culturally Responsive

Culturally Responsive Pedagogy is...

Some of the characteristics of culturally responsive teaching are:

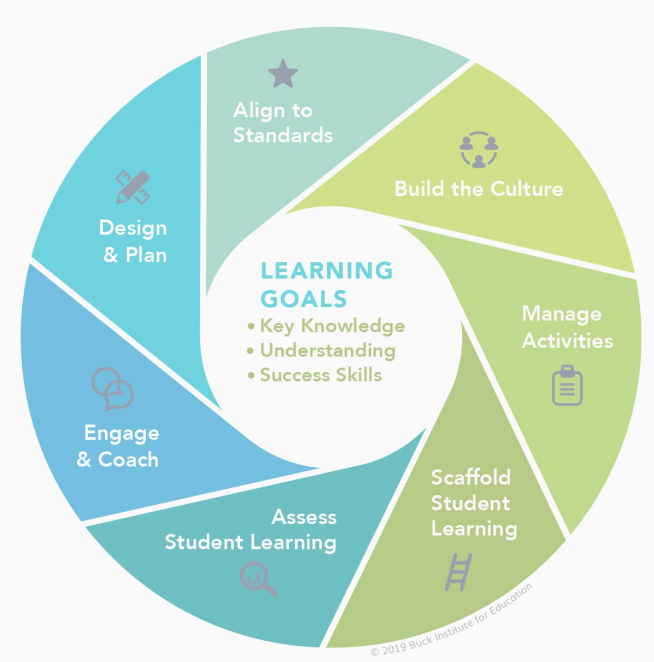
1. *Positive perspectives on parents and families*
2. *Communication of high expectations*
3. *Learning within the context of culture*
4. *Student-centered instruction*
5. *Culturally mediated instruction*
6. *Reshaping the curriculum*
7. *Teacher as facilitator*

Ladson-Billings, G. (1994) The Dreamkeepers. Via: brown.edu

3

PBL (Project Based Learning)

Project-based learning is...



A teaching method in which students learn by actively engaging in real-world and personally meaningful projects. (pblworks.org)

Hunger
How can we impact hunger in our community?

Poverty
How can we change the poverty situation in our city?

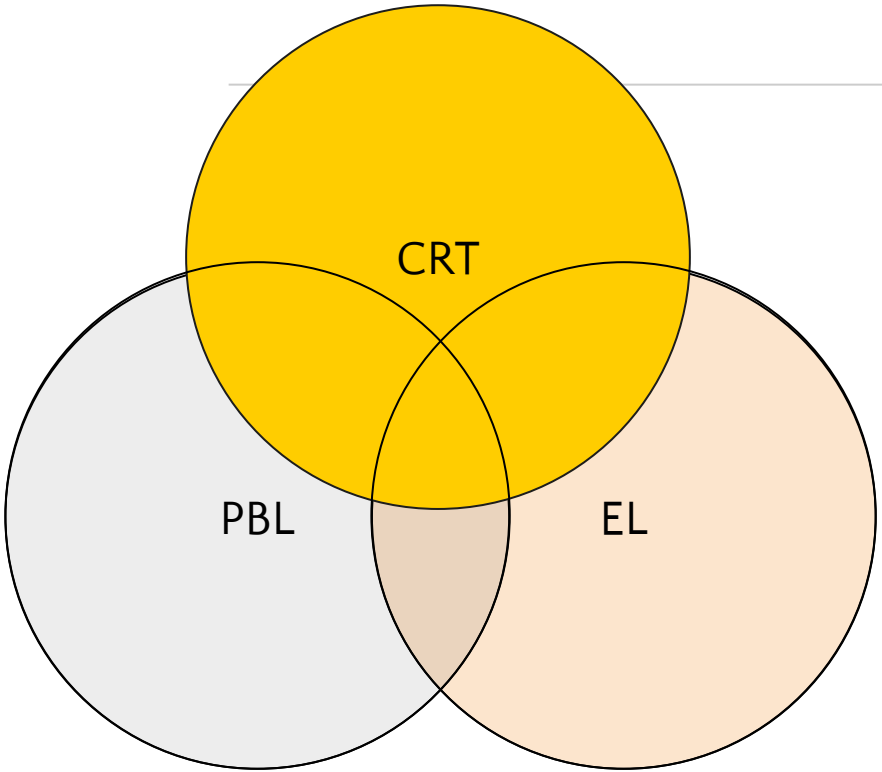
2

Experiential Learning

Experiential learning is...

- The application of theory and academic content to ***real-world experiences***, either within the classroom, within the community, or or within the workplace, ...Experiential learning requires the student to not only ***engage in the experience activity***, but also requires them to reflect upon their learning and how their skills learned through their academic studies can be applied beyond the classroom. (Carleton)
- Experiential learning is, quite simply, ***learning by doing***. (experientallearning.org)
- ...***building knowledge by doing***. Experiential learning can refer to simulations, role plays, project-based learning, or any other immersive educational experience. four stages: action, reflection, conceptualization, and application. (edutopia)

How can Project Based & Experiential Learning support a Culturally Responsive Teaching practice?

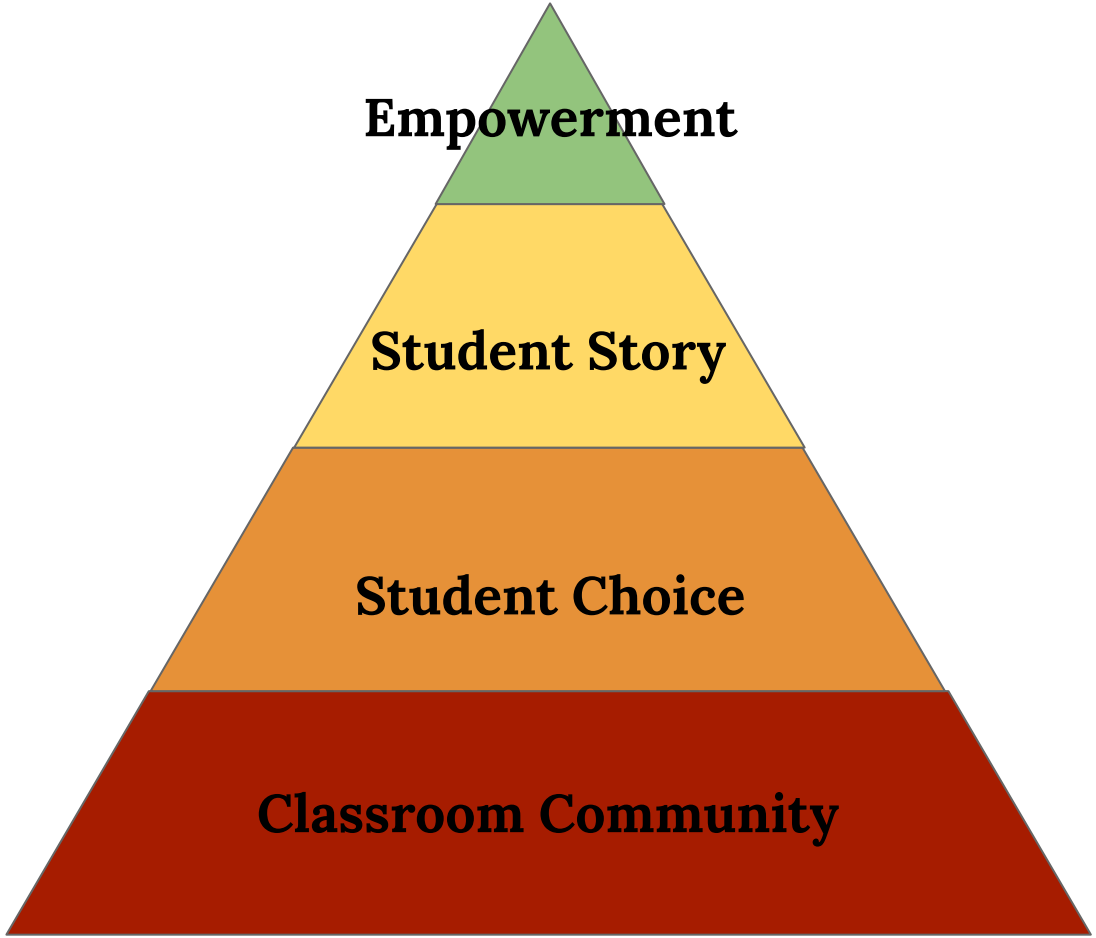


Phase Three:

Phase Two:

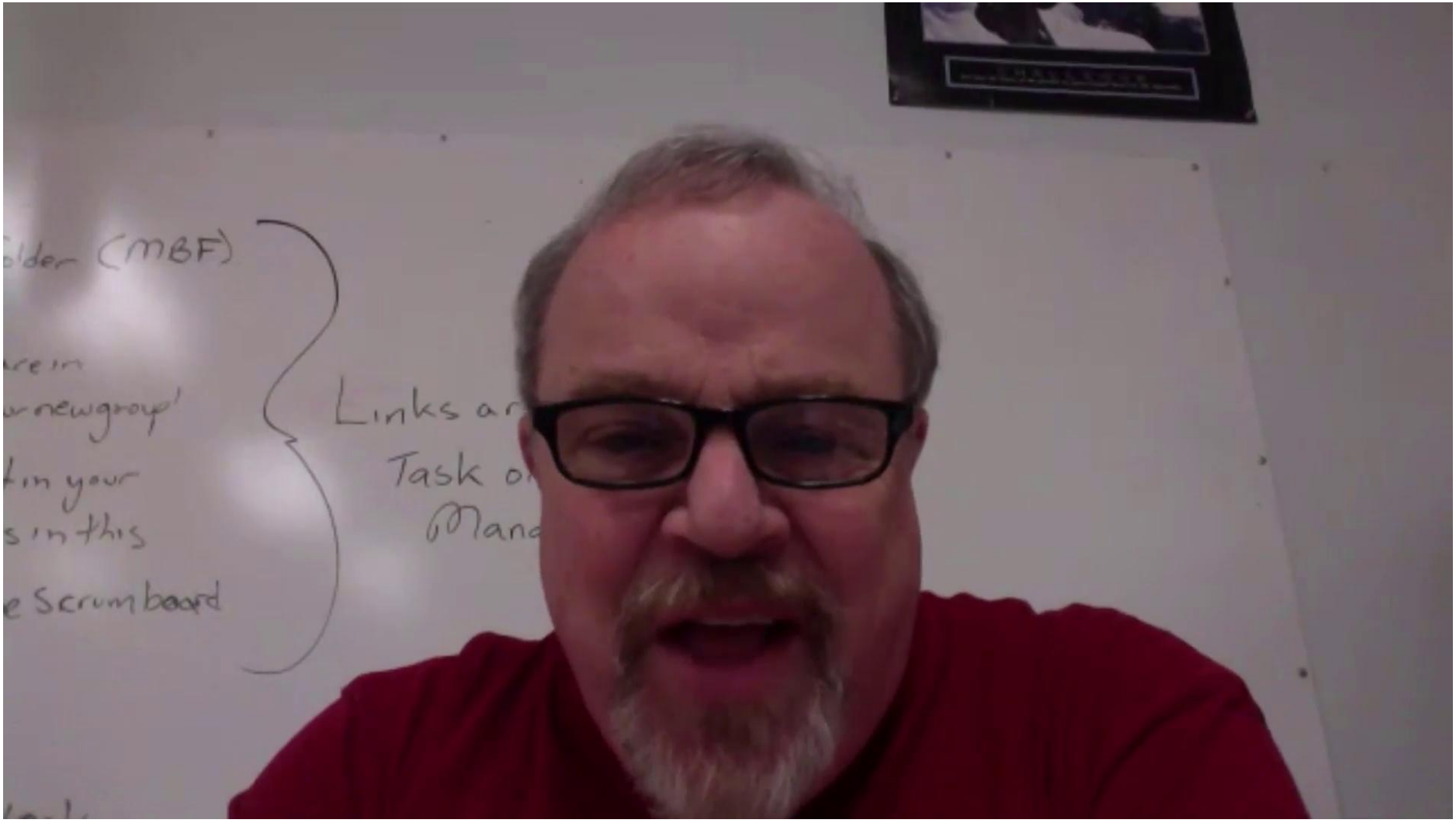
Phase One:

Phase Zero:



Phase Zero: Classroom Community

- How do you create a safe environment for students to take intellectual risks?
- How do you build, maintain, sustain & repair meaningful relationships with your students?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Phase Zero: Classroom Community

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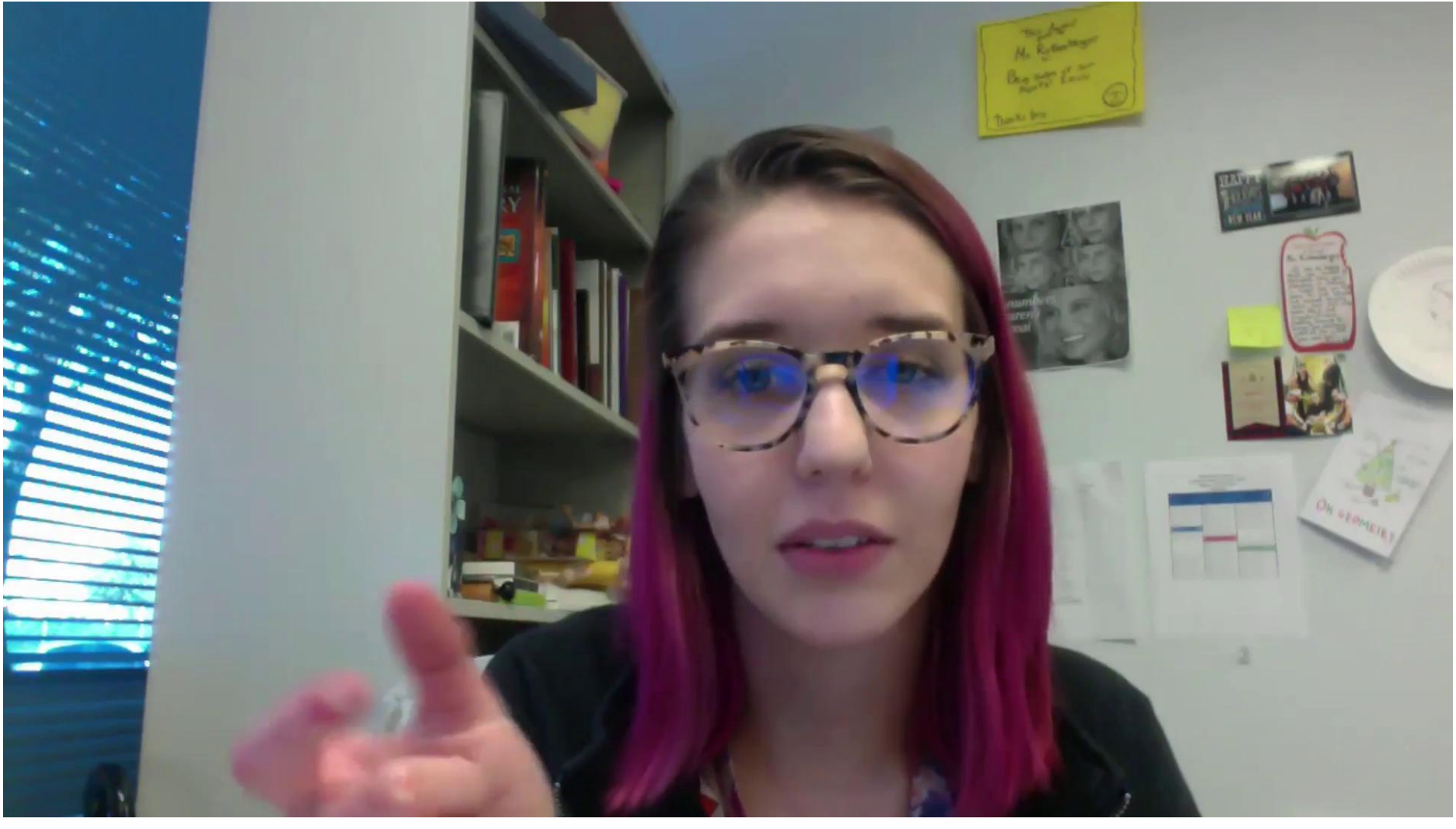
Phase One: Student Choice

- What choices do students make in your math classroom?
- What opportunities for choice can you invite?



Phase One: Student Choice

- What choices do students make in your math classroom?
- What opportunities for choice can you invite?

Phase Two: Student Story...

- What stories are told in your math classroom?
- ***Whose*** stories are shared in your classroom?

Image credit: Howie Hua

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Phase Two: ...and Ownership

- How are the mathematical ideas of students shared & uplifted within your classroom community?

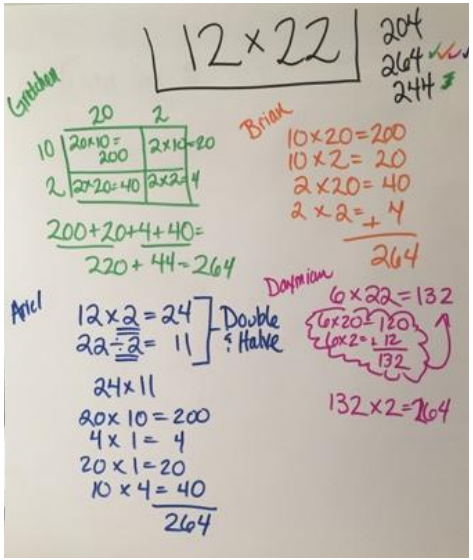

Image credit: http://kes-5thgrade.blogspot.com/2015/10/number-talks.html

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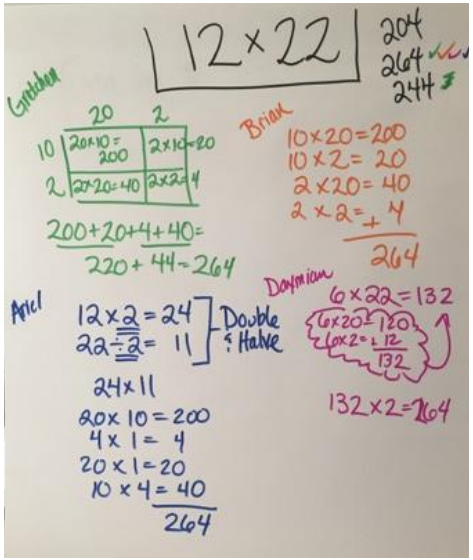

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Phase Three: Empowerment

- In what ways does math help ***illuminate***, ***edify*** and ***seek solutions*** for problems facing our society?

- In what ways does math ***replicate***, ***amplify*** and ***exacerbate*** these issues?

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Recommendations About PBL & EL

- Begin with a culture of inquiry and collaboration
- If you want to implement Project Based Learning, you've got to start somewhere, so just start!
  - Start with the math
  - Start with something you enjoy
  - Then, look at what your students are interested in
- Keep things open-ended: if it's not open, then "it's not a project; it's a recipe."
- Talk with your colleagues

Call to Action

What ***commitment*** will you make moving forward from here?

All teaching is culturally responsive teaching. The question is to whose culture you are responding.

-Zaretta Hammond

@Ready4rigor

Thanks!

Continue the conversation

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