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
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...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
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

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?
Experiential Learning

Experiential learning is...
The application of theory and academic content to real-world experiences, either within the classroom, within the community, 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. (experientiallearning.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 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?
Links are in your new group task from the Scrum board.
Phase Zero: Classroom Community

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- How do you build, maintain, sustain & repair meaningful relationships with your students?
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
Phase Two: Student Story...

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