



Image Description: Black and white image of the cast of the show Pose over a pink background that says "Pose" in neon pink lights.

Image Source: [hondalands](https://hondalands.com)

Visions Week 3: Developing Border Consciousness

Welcome back! We will begin shortly. Until then, sit back and enjoy the music.



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Image Description: Drawing of two hands, one white and one black making a heart sign. Each of their wrists also contains an rainbow colored bracelet.

Image Source: [Moonlake Fabrics Etsy](#)

So We Will

- Work collaboratively
- Be provocative yet caring
- Feel “comfortably uncomfortable”
- Extend grace to ourselves and others - we won't expect perfection
- Embrace cognitive dissonance
- Center calm and healing
- Follow the 40 second rule (make space for new voices)

Source: Brian Arao & Kristi Clemens's "[From Safe Spaces to Brave Spaces](#)" (2013)



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Breakout Rooms

- 1) How does Mathematics function as a border?
- 2) How might identifying & queering borders in mathematics help to rehumanize mathematics for LGBTQ+, BIPOC, disabled, & other students from oppressed groups?
- 3) How, if at all, do you see Dr. Gutiérrez's strategies of creative insubordination as being related to Dr. Yeh & Dr. Rubel's discussion of developing border consciousness?



Image Description (from source): *Marsha P. Johnson (left) and Sylvia Rivera march in New York City in 1973*

Image Source: [Reuters Graphics](#)

Sources:

Yeh & Rubel's "[Queering Mathematics: Disrupting Binary Oppositions in Mathematics Pre-service Teacher Education](#)" (2020)

Gutiérrez's "[Strategies for Creative Insubordination in Mathematics Teaching](#)" (2016)



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Breakout Room 1



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Use the first few mins to designate:

- 1) a note-taker*
- 2) a reporter*

Discussion Qs:

- 1) How does Mathematics function as a border?*
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- 3) How, if at all, do you see Dr. Gutiérrez's strategies of creative insubordination as being related to Dr. Yeh & Dr. Rubel's discussion of developing border consciousness?*

Type your notes here

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Type your notes here

Share Out!

Discussion Qs:

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- 3) How, if at all, do you see Dr. Gutiérrez's strategies of creative insubordination as being related to Dr. Yeh & Dr. Rubel's discussion of developing border consciousness?



Image Description (from the source): *Original painting, one of a kind. Tribute to Frida Kahlo. A lovely memory of Frida Kahlo in a moment of happiness wearing her very unique and colorful flowers crown and surrounded by blue butterflies as a symbol of freedom and dreams*

Image Source: [SAATCHI ART](#)



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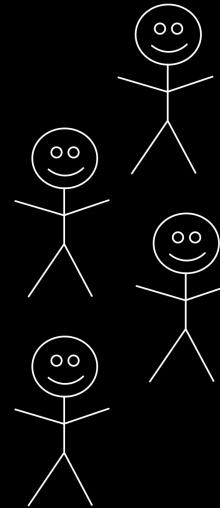
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Gender as a Border

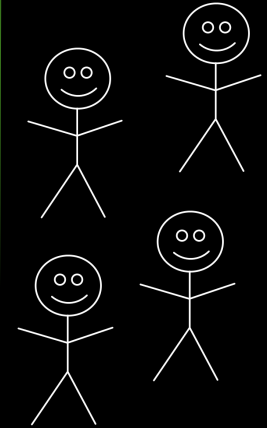
“Borders are constructions of social division... that create spaces on either side ... This property is fundamental to the border. At any singular location, one understands the border as creating “us” and “them,” that is, the space where one stands, and the other spaces where “everyone else” resides.”

- Moore & Johnson

Masculine/Men



Feminine/Women



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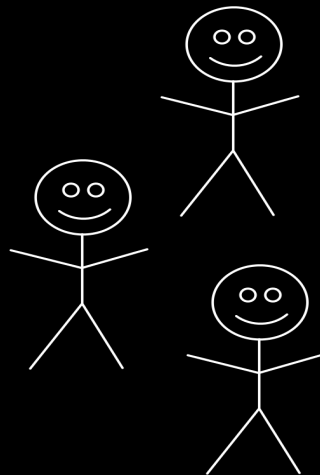


Queer Students as Border Crossers and Residents of the “Borderlands”

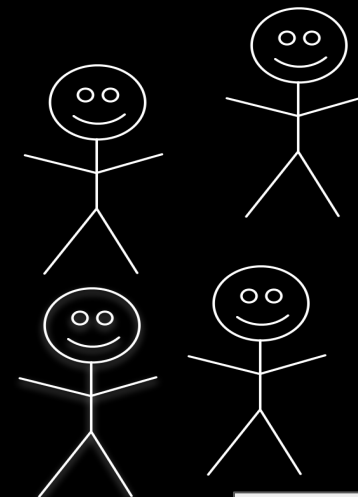
The power of [the border] is derived from the properties inherent to the object of the border itself; it is a third side of the division, a “fuzzy zone-like phenomenon of inclusive disjunction” (Nail, 2016, p. 3) which exists as its own object for the purpose of creating the division between the two spaces. “If the border were entirely reducible to the two [spaces], nothing would divide them” (Nail, 2016, p. 3).

- Moore & Johnson
[quoting Nail]

Masculine/Men



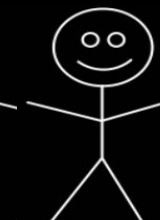
Feminine/Women



Oh
heyyyy



Much
better!



Using Yeh & Rubel's Border Consciousness Questions

Developing Border Consciousness (Yeh & Rubel)

1. What knowledge (aside from the mathematics) and worldview is assumed by this word problem? What are the problem's assumptions or values?
2. Does this problem reflect your own experiences?
3. Whose experiences are reflected or not included?
4. How could we queer these problems so to reflect a wider number of windows and mirrors for our students?
5. What categories of resistance might you face to these new word problems and how will you respond or get support?

Yeh & Rubel's Qs for developing border consciousness are a means for tapping into queer, BIPOC, & other funds of knowledge that are often overlooked in our mathematics classrooms and curriculum.

Sources:

Yeh & Rubel's "[Queering Mathematics: Disrupting Binary Oppositions in Mathematics Pre-service Teacher Education](#)" (2020)



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Image Description: *Painting of Civil Rights activist Bayard Rustin over a rainbow colored background made of geometric shapes*

Image Source: [Q Spirit](#)

Breakout Rooms

- 1) Explore the 6 identified lessons of the EngageNY Module linked to your slide (split them up, e.g. 2 per group member)
- 2) As you explore, use Yeh & Rubels Qs for developing border consciousness & try to “queer” some of the problems to reflect a wider range of windows/mirrors.
- 3) Discuss your findings and thoughts with the others in your breakout room.



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Breakout Room 1 : Use [This](#) Module (1-5, 7)



Use the first few mins to designate:

- 1) a note-taker
- 2) a reporter
- 3) who will review which lessons

Yeh & Rubel's Qs:

- 1) What knowledge (aside from the mathematics) & worldview is assumed by this word problem? What are the problem's assumptions or values?
- 2) Does this problem reflect your own experiences?
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Lesson 1 - Ratio of boys and girls (change the context to ice cream flavors; number of people who have pets and don't)

Use they/them pronouns.

Boys and video games → get to play more if they do school (boys don't like school but they like video games)

Use siblings instead of sisters and brothers

Proportion problems with reading - faster = smarter

Cooking as gendered → Joseph w/mom; Mary and Suzette

Dad leaving land to his sons → How come it's a guy

Breakout Room 2 : Use [This](#) Module (2, 4, 6, 7, 9, 22)



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The problems did not necessarily provide any context.

When there is no context, then the only experience being reflected is that of the student who enjoys drill and skill activities.

We would change the problem to include more model options so that a wider range of students would have a chance to be correct.

Be sure to have coordinate points that make sense in a real world context.

Could have one of the students who uses they/them, or even always use they/them no matter what the name.

Share Out!



Image Description: *Picture of three members of the cast of HBO's Generation (Nathan, Chester, and Riley), sitting on at an outdoor picnic table. Chester is in the middle with his arms around Riley and Nathan.*

Image Source: [E Online](#)



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Image Description: *Image of India's first transgender dance troupe performing at a 2017 Mumbai Pride event.*

Image Source: [SBS](#)

Creative Insubordination

- Press for Explanation
- Counter with Evidence
- Use the Master's Tools
- Seek Allies
- Turn a Rational Issue into a Moral One
- Fly Under the Radar

Sources:
Gutiérrez's "[Strategies for Creative Insubordination in Mathematics Teaching](#)" (2016)



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Debrief

What are we thinking/feeling in relation to what we discussed today?



Image Description: Image of intersex activist/advocate, Pigeon Pagonis holding a sign that says "Stop harming intersex children"

Image Source: pid.ge



Image Description: Movie poster for the Amazon Documentary "My Name is Pauli Murray". The poster is a picture of Pauli Murray over a rainbow colored American Flag backdrop.

Image Source: [IMDb](#)

Preparing for Next Session (Nov 16th)

- Read:
 - Kai Rands's "[Mathematical Inqu\[e\]ry: Beyond 'Add-Queers-and-Stir' Elementary Mathematics Education](#)", (2009)
- Try using Yeh & Rubel's Qs on some of your own word problems you encounter in the next 2 weeks (we will start next time by sharing about it!)
- Share your [feedback!](#)