

DO ALL LIVES MATTER IN MATHEMATICS EDUCATION?

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LET'S CONSIDER...





MY OBSERVATIONS







MATH TEAM



“

You can find my child for the basketball team but when it comes to the math club, he is suddenly hard to locate.

-Dr. Joi Spencer



OTHER DATA



ABOUT SPRING VALLEY HIGH SCHOOL

- Enrollment: 1974
- Rated “Excellent” on state report card
- Classified by NCES as “suburban”
- 72% “Minority”
 - American Indian/Alaskan, 0.2%
 - Asian/Pacific Islander, 6.5%
 - Black, 50.8%
 - Latino, 6.8%
 - White, 34.1%
 - Two or more races, 1.7%
- 28.5% Free and Reduced Lunch
- 2 mathematics and science magnet programs (school-within-a-school)

Mathematics Proficiency

Below Basic, 11%

Basic, 23%

Proficient, 28%

Advanced, 38%

**THIS IS AN EQUITY ISSUE
FOR MATHEMATICS
EDUCATORS**



THEORETICAL DEVELOPMENTS IN MATH EDUCATION

Moment by Moment



MOMENTS OF MATHEMATICS EDUCATION RESEARCH

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- Process-Product Moment (1970s–)
 - Predicting social phenomena
- Interpretivist-Constructivist Moment (1980s–)
 - Understanding social phenomena
- Social-turn Moment (mid 1980s–)
 - Contextualizing social phenomena
- Sociopolitical-turn Moment (2000s–)
 - Politicizing social phenomena

- *Why* this concept?
- *Who* benefits from students learning this concept?
- What is *missing* from the mathematics classroom because I am required to cover this concept?
- How are the students' *identities* implicated in this focus?

Gutiérrez, R. (2013). *The sociopolitical turn in mathematics education. Journal for Research in Mathematics Education*, 44(1), 37–68.

THE NETWORK OF MATHEMATICS EDUCATION PRACTICES

Professional Development

Industrial Labor Market

Teacher Labor Market

Mathematics

Textbook Production

Learning

Mathematics Education Research

Policy making

Teacher Education

Teaching

THE RESEARCHER'S DUTY IN THE SOCIOPOLITICAL TURN

- Foreground the political
- Engage the tensions
- Uncover the taken-for-granted rules and ways of operating
- Call out privilege and oppression
- Use the understanding of mathematics education to transform it

Gutiérrez, R. (2013). The sociopolitical turn in mathematics education. Journal for Research in Mathematics Education, 44(1), 37–68.

MY USE OF CRITICAL POSTMODERN THEORY

- Developing a conceptual framework for urban mathematics education (Bullock & Larnell, 2015a; 2015b; in progress)
 - What is urban mathematics education?
 - What constitutes a socio-spatial understanding of urban mathematics education?
- Historicizing the NCTM *Standards* movement (Bullock, 2013; under review)
 - How has *Standards*-based mathematics education become *the* way for school mathematics in the United States?
 - Foucault's archaeology and genealogy



THIS THING CALLED “EQUITY”



EQUITY AS A SLOGAN SYSTEM

Properties of a Slogan System (Apple, 1992, pp. 413-414)	Evidence in Equity Discourse
Penumbra of vagueness	<ul style="list-style-type: none">● Fitting nearly anything related to the social under the equity umbrella● What is equity, really?
Specific enough to offer something to practitioners here and now	<ul style="list-style-type: none">● We have developed curricula for mathematics classrooms and for teacher education that focus on equity● Our research often seeks solutions-on-demand
Charm	<ul style="list-style-type: none">● Who would argue the educational equity is not important?

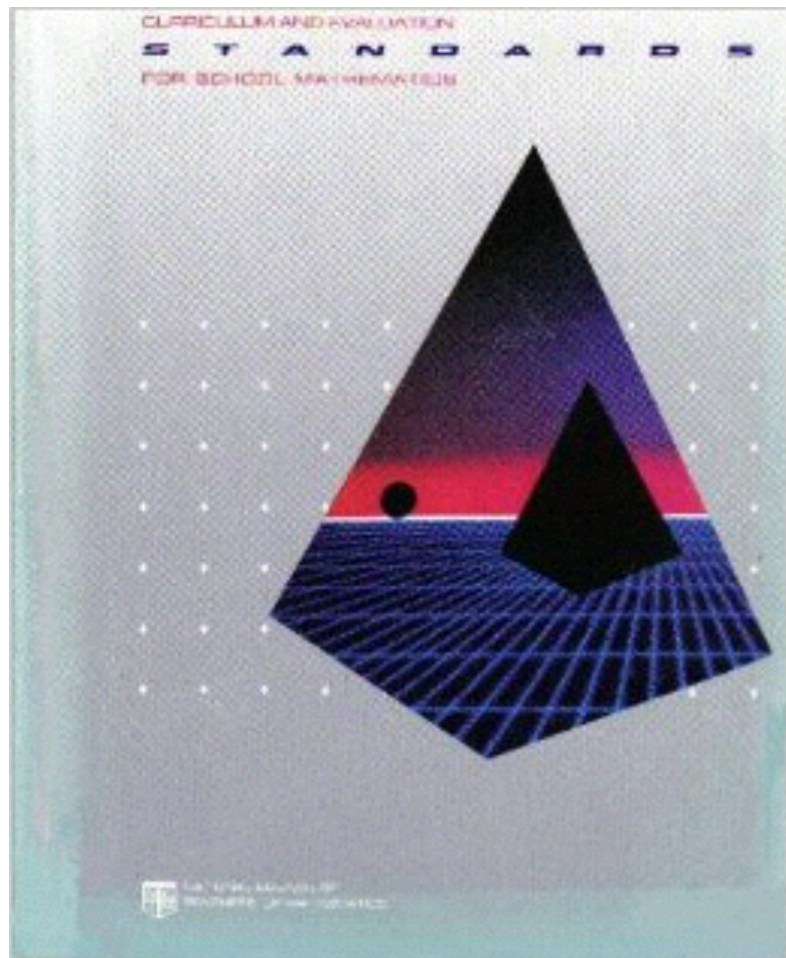


**ARE WE REALLY COMMITTED TO
EQUITY?**

“

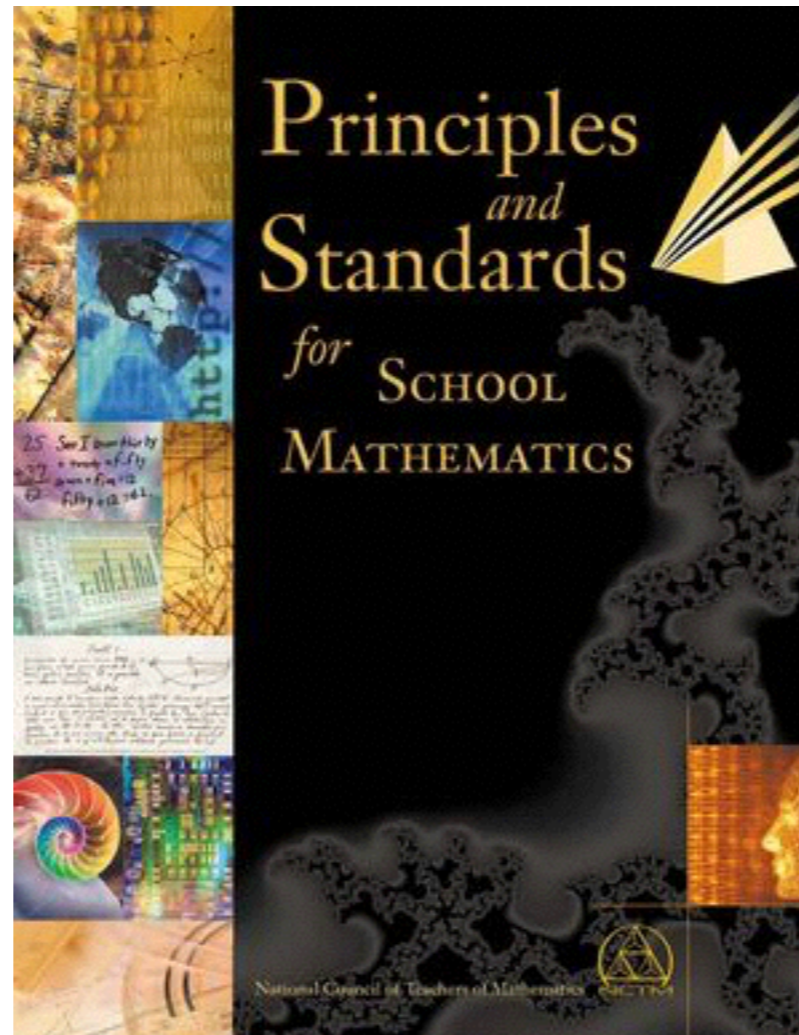
This is a 26-year-old message,
couched in a 400-year-old quest for
equity in the United States.

-Danny Martin



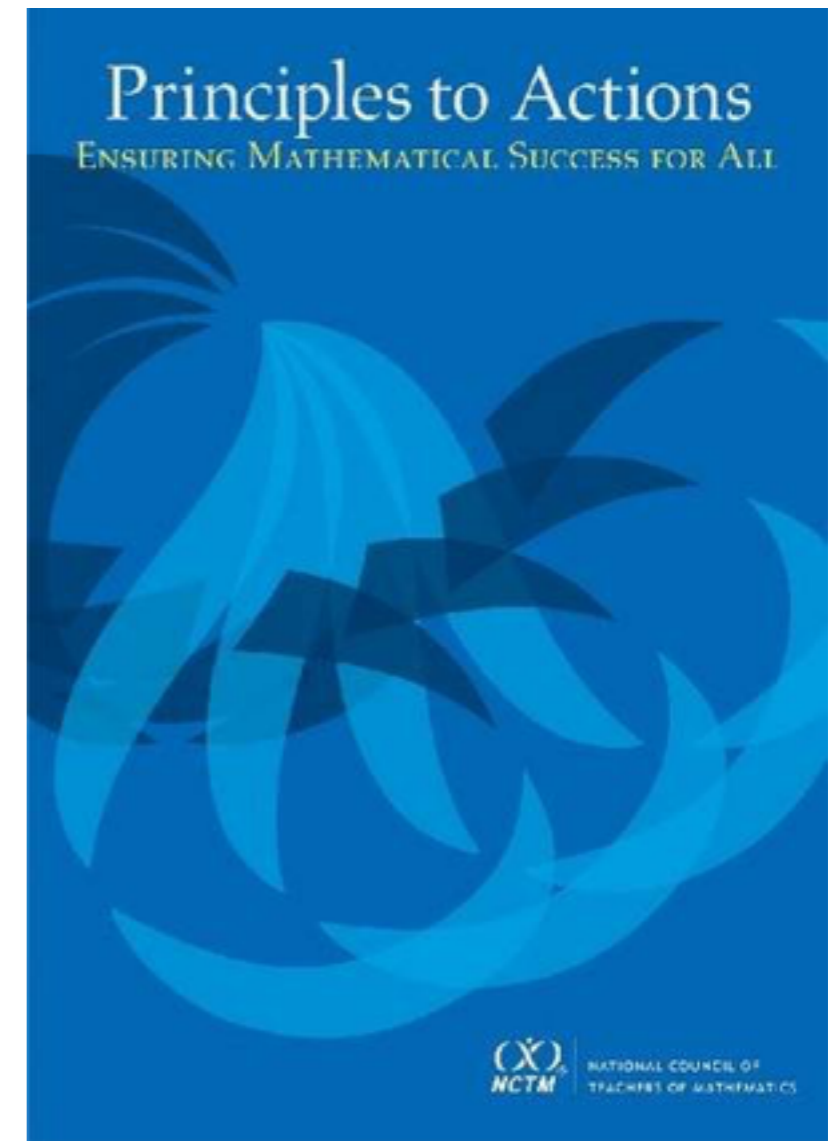
1989

Mathematics for all



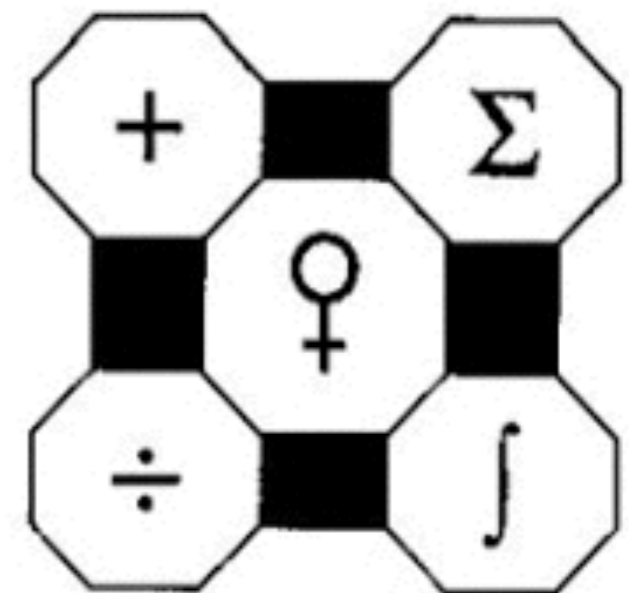
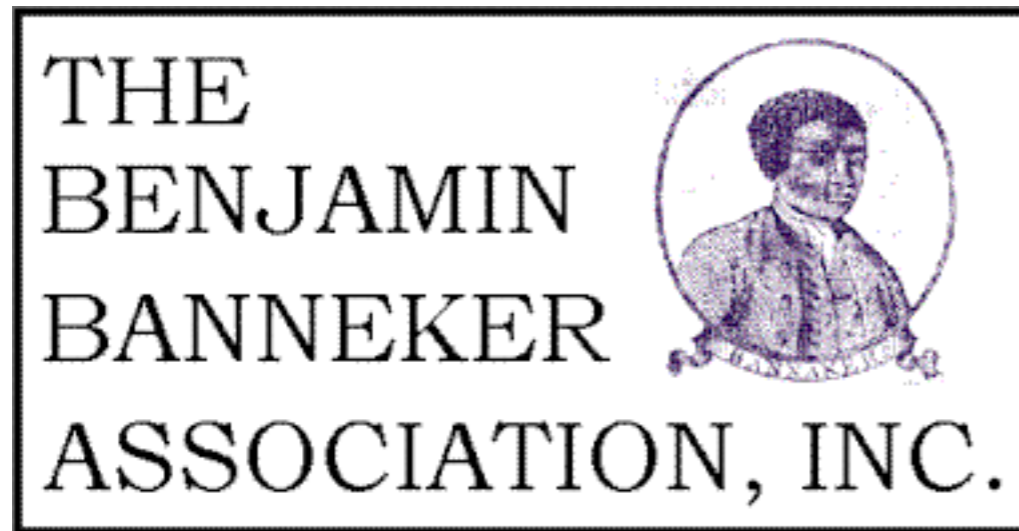
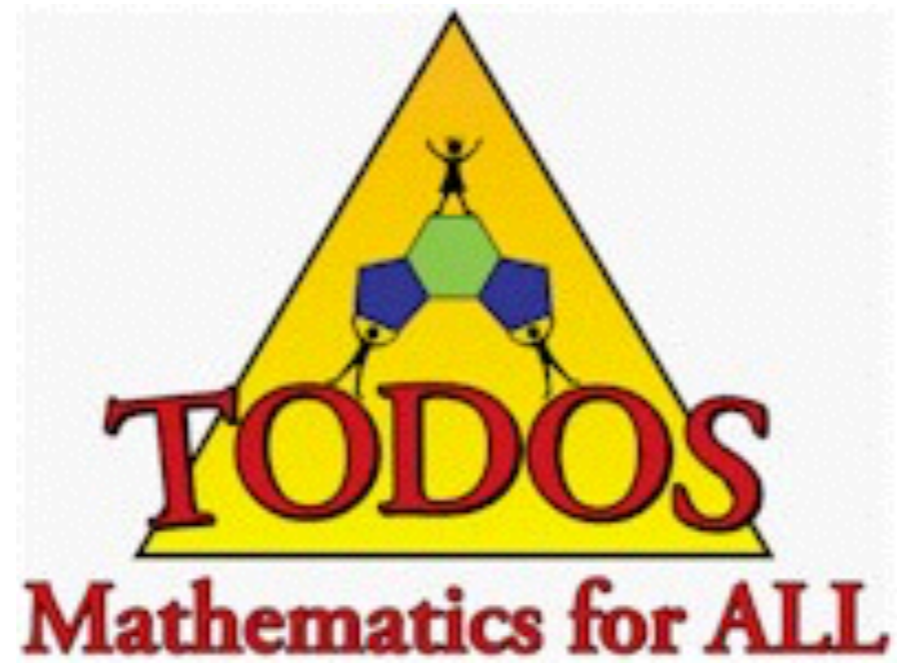
2000

The Equity Principle



2014

Equity and Access





TRACING EQUITY DISCOURSE IN MATHEMATICS EDUCATION

My Current Project

RESEARCH QUESTIONS

- What is equity in mathematics education?
- How have equity discourses in mathematics education been constructed over the last 35 years?
- How have mathematics educators proposed addressing equity?
- How have these framings affected our ability to achieve equity in mathematics?

REAL QUESTIONS

- Why do we still have classrooms that look like the one at Spring Valley High School and mathematics education systems that are constructed in that way?
- How is it possible for a field to discuss a problem for 35 years in large and small ways and yet make negligible progress toward its resolution?

TRACING EQUITY DISCOURSE THROUGH JRME SPECIAL ISSUES

<p>1984 Minorities in Mathematics</p>	<p>Westina Matthews, editor</p>	<p>“A new phase of concern and positive action” related to “the special problems faced by members of minority groups in learning mathematics” (Kilpatrick & Reyes, 1984, p. 82).</p>
<p>1997</p>	<p>William Tate and Beatriz D’Ambrosio, editors</p>	<p>Response to “political retrenchment... focused on eliminating race-based academic policies” constituted by “rhetoric about the cognitive abilities—including mathematical ability—of culturally, linguistically, and racially diverse students” (Tate & D’Ambrosio, 1997, p. 650).</p>
<p>2013</p>	<p>Rochelle Guitérrez, editor</p>	<p>Focus more specifically on “how identity and power play out in mathematics teaching and learning in schools and in broader policies and practices of mathematics education” (D’Ambrosio et al., 2013, p. 1).</p>

BUT I HAVE ISSUES

WAVES OF EQUITY SCHOLARSHIP

- First wave: (Process-Product & Interpretive-Constructivist)
- Second wave: (Social Turn)
- Third wave: (Sociopolitical Turn)



ALL LIVES MATTER VS. BLACK LIVES MATTER



EQUITY DISCOURSE

=

ALL LIVES MATTER

White – Black score gap in mathematics at grade 4 smaller compared to 2013

In 2015, the average mathematics score for White fourth-grade students was 24 points higher than the average score for their Black peers. This 24-point score gap was smaller compared to the 26-point gap in 2013, the previous assessment year, and was also smaller than the 32-point gap in 1990, the first assessment year.

SEE THE SCORE OF ONE STUDENT GROUP...

White

MINUS...

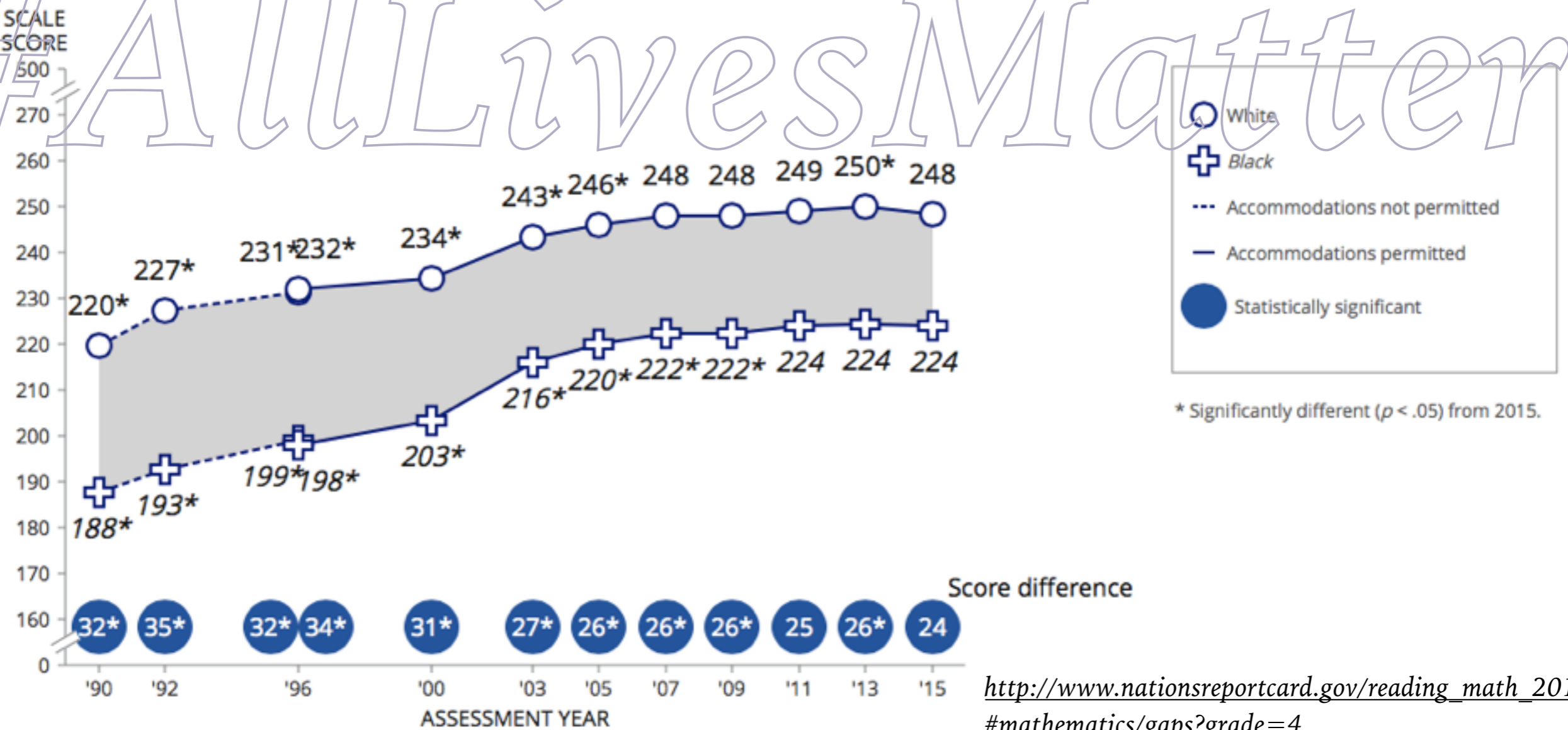
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ANOTHER STUDENT GROUP

Black

Trend in fourth-grade NAEP mathematics average scores and score gaps, by race/ethnicity

#AllLivesMatter



3RD WAVE EQUITY AS A BLACK LIVES MATTER MOMENT

- Why do we do what we do the way that we do it and who benefits?
- Why do we focus on equity rather than inequity?
- How do we need to de/reconstruct this discourse in order to actually work against inequity?

WHAT DOES MOVEMENT WORK IN MATH ED LOOK LIKE?

- Shift focus from equity to inequity which is equivalent to a shift from All Lives Matter to Black Lives Matter
- Name inequities and the ways that those inequities function within math education
- Address inequities throughout the network of mathematics education practices that Valero describes
- Draw upon literatures, theories, and methodologies that are yet untapped in math ed
- Engage in creative insubordination and teach our pre-service and K-12 students to do the same
- Respond to an ethic that is bigger than math education but reverberates through our experiences as math educators

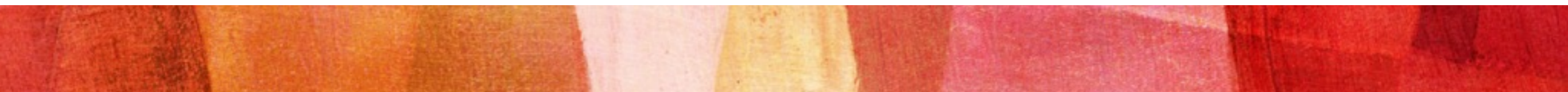
When we deploy “All Lives Matter” as to correct an intervention specifically created to address anti-blackness, we lose the ways in which the state apparatus has built a program of genocide and repression mostly on the backs of Black people—beginning with the theft of millions of people for free labor—and then adapted it to control, murder, and profit off of other communities of color and immigrant communities. We perpetuate a level of White supremacist domination by reproducing a tired trope that we are all the same, rather than acknowledging that non-Black oppressed people in this country are both impacted by racism and domination, and simultaneously, BENEFIT from anti-black racism.

-Alicia Garza

<http://www.thefeministwire.com/2014/10/blacklivesmatter-2/>



A LOVE LETTER TO BLACK LIVES



FOR OUR CONSIDERATION

- What does it mean for us to create our research and practice as a love letter to Black lives?
- How can we use the spotlight on Spring Valley High School as a springboard to right the wrongs that have occurred on our watch?

#BLACKLIVESMATTER