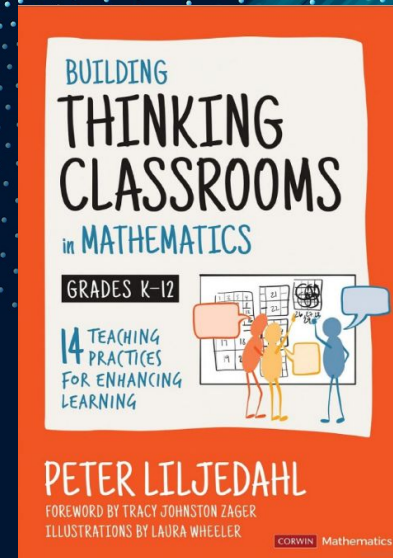
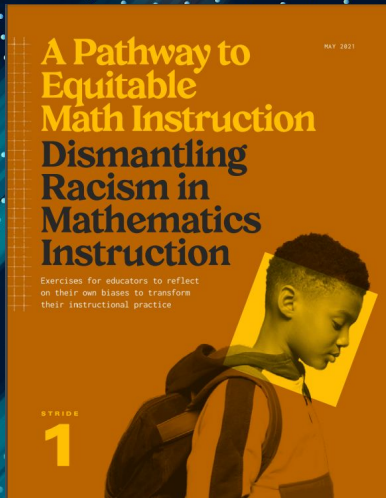


# Dismantling Racism in Math Education

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## Expectations and Norms


**Be present.** We ask that everyone be intentional in their interactions today.

**Assume good intentions.** Assume that everyone is here to collaborate and learn.

**Give respect.** All ideas, opinions, and thoughts that are shared here will be received without judgement and kept confidential.

**Be comfortable with discomfort.** We are discussing ideas and topics today that are very personal and may conflict with your moral code. Expect and respect the discomfort.

## Agenda

1. Guiding Principles
  2. The “why” of what we do.
  3. Scaffolding: Systems of support
  4. Traditional “gatekeepers” to content that limit opportunity.
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# Alignment

**Racial Equity Policy: 1.a)** Identify, develop, utilize and prioritize District-wide implementation of **instructional practices** that have been shown to improve learning outcomes for Students of Color.

**Racial Equity Policy Expectation #1.2** The school has identified and is implementing **instructional practices that have shown to improve outcomes** for Students of Color, to close the achievement gap.

**ARE Tool: Equitable Pedagogy:** Teachers develop a **tool box of instructional examples**, methods, and practices that are culturally familiar to underrepresented students.

**Culture and Climate:** The school adopted a shared attitude, beliefs, and commitment to increase **culturally responsive strategies** and decrease or eliminate racist instructional practices.

**Deeper Learning:** Schools incorporate practices that encourage activity **engagement in student learning**.

**Systems 3:** During **PLC**, teachers discuss opportunities to improve **instructional practices** that promote achievement for all students.

**System 6:** As a part of the instructional walkthrough, teachers are provided with **feedback around instructional strategies** that have the highest yield to student achievement.

# What do you see in math classrooms?

**Goal:** Build a list of activities and actions (teacher/students) you witness in math instruction. What are students doing / what is the teacher doing? (Keep it Real!)

**Grouped:** Randomized Grouping

**Think Ink Pair Share**



# Elitism and Racism

**Elitism:** the belief that some things are only for a few people who have special qualities or abilities (star)

(<https://dictionary.cambridge.org/us/dictionary/english/elitism>)

**Racism:** policies, behaviors, rules, etc. that result in a continued unfair advantage to some people and unfair or harmful treatment of others based on race (circle)

<https://dictionary.cambridge.org/us/dictionary/english/racism?q=Racism>

# Math Instruction - History Lesson

## 1. Elitism

### a. Math was for the Elite

- i. Some societies promoted the notion of “I’m not a math person. (Eurocentric thinking)
- ii. Some societies would be shocked to hear a person say that. (Asian, etc.)

### b. Training and assessment

- i. We was used Teaching to weed out the untalented.
- ii. Other Countries used teaching to train mathematicians.

### c. “I’m not a math person” - propaganda elitism

### d. This is shifting today (Everyone can do math!). The instructional strategies used have not shifted.

**“I’m not a  
math  
person.”**

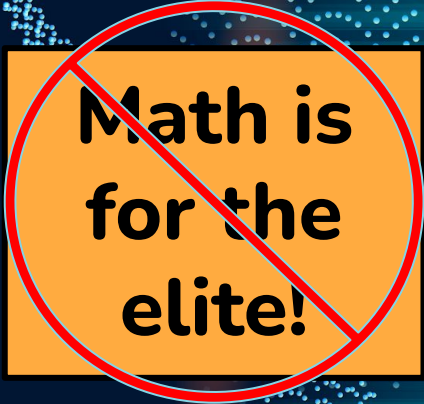
# Guiding Principles

## 1. Students

- a. Students take ownership of their own learning.
- b. Students are resources for each other
- c. Math is for everyone

## 2. Teachers

- a. Identify racist pedagogy
- b. Dismantle systems and instructional practice of inequity
- c. Provide opportunity for students to experience productive struggle



**Math is  
for the  
elite!**



1. **GL: Grade Level**
  - a. Inequitable practice: Progression based on grade level
  - b. Equitable practice: Progression based on CSA**
2. **Engaging**
  - a. Inequitable practice: Engaging = entertaining
  - b. Equitable practice: Engaging academically = productive struggle = FAIL**
3. **Affirming**
  - a. Inequitable practice: Affirming = limited to members of a community
  - b. Equitable practice: Affirming = Scholar**
4. **Meaningful**
  - a. Inequitable practice: Limited to using student's name in the problems.
  - b. Equitable practice: Incorporating students' interests, life experiences, and passions in learning**

## White Supremacy Characteristics

*Perfectionism*  
*Sense of Urgency*  
*Quantity over Quality*  
*Either/or Thinking*  
*Power Hoarding*  
*Only One Right Way*  
*Individualism*

# Dismantling Racism in Math Instruction

Inequitable Practice	Equitable Practice	GLEAM
Greater focus on getting the “right” answer!	Conceptual understanding and reasoning	<i>Grade Level</i>
Independent Practice	Teamwork or collaboration	<i>Engaging Affirming</i>
Fixed Grouping	Flexible Grouping	<i>Affirming</i>
Mistakes are addressed as failure	Mistakes = opportunities to learn	<i>Affirming</i>
Hands up	No Opt Out - Random Selection Equity Sticks	<i>Affirming</i>
Rigor is expressed only as difficulty	Conceptual Understanding, Application, and Computation/Procedural Skill	<i>Affirming</i>
“I do, we do, you do”	“You do (FAIL), We do, I do”	<i>Affirming</i>

# Hands up!

## (Perfectionism, Power Hoarding, Sense of Urgency)

Hands up! Inequitable Actions	Random Selection -Equity Sticks Equitable Actions
Identity - Only students who see themselves as mathematician tend to answer.	Identity - Every sees themselves as capable
Invitation - No invitation for begin to answer the question. (Some won't even start working.)	Invitation - Everyone is expected to work on answering the problem.
Right answer seeking	Thinking seeking
Check for Understanding - Fake	Check for Understanding - authentic gauge of student's understanding.
Calling on students: Stopping only after the right answer is given.	Stated "Who has a different way" or "Who can add on"
<b>Message: "I believe in some students"</b>	<b>Message: "I believe in all students"</b>

# The Cycle of Belief

A teacher believes in the students.

Trust: Visible  
Intentional Trust  
Building Actions

Trust

Trust

Trust

**Students believe that the teacher believes in him.**

Trust

Trust

Trust

Teacher: "I believe in you." "I know you can do this."



A student believes in him or herself.



# Greater focus on getting the “right” answer! (Perfectionism, Only One Right Way)

Greater focus on getting the “right” answer! <b>Inequitable Actions</b>	Conceptual understanding and reasoning over answers <b>Equitable Actions</b>
Grading - right answers get most of the value	Grading - rubric with models, explanation and answer statements valued over right answer
Tell me why? - Signs to student that they were wrong.	Should include “ Always explain your thinking.”
Calling on students you know has the right answer.	Randomly calling on students to share their strategies.
Face signals -for wrong answers teacher give a look of disappointment	Face signals: for wrong answers teachers get excited to help correct misconceptions
<b>Message: Grading is important</b>	<b>Message: Student thinking is important</b>

# Independent practice

<b>Independent practice</b> <b>Inequitable Actions</b>	<b>Teamwork or collaboration</b> <b>Equitable Actions</b>
Independent practice as an assessment	Grading: how do you grade teamwork
Learning: learning stops during independent practice.	Learning continues during group work
Independent practice makes mistakes permanent	Collaboration corrects misconception
Students do all the problems	Students can do a problem independently but then work together to revise thinking
<b>Message: “Practice is an assessment” - Value grading</b>	<b>Message: “Practice is for learning” - Value learning</b>

# Dismantling Inequity in math instruction

Inequitable Practice	Equitable Practice	GLEAM
Greater focus on getting the “right” answer!	Conceptual understanding and reasoning over answers	<i>Grade Level</i>
Independent practice	Teamwork or collaboration	<i>Engaging Affirming</i>
<b>Fixed Grouping</b>	<b>Flexible Grouping</b>	<b><i>Affirming</i></b>
<b>Mistakes are addressed as failure</b>	<b>Mistakes = opportunities to learn</b>	<b><i>Affirming</i></b>
Hands up	No Opt Out - Random Selection Equity Sticks	<i>Affirming</i>
<b>Rigor is expressed only difficulty</b>	<b>Conceptual Understanding, Application, and Computation/Procedural Skill</b>	<b><i>Affirming</i></b>
<b>“I do, we do, you do”</b>	<b>“You do (FAIL), We do, I do”</b>	<b><i>Affirming</i></b>

# Gatekeepers

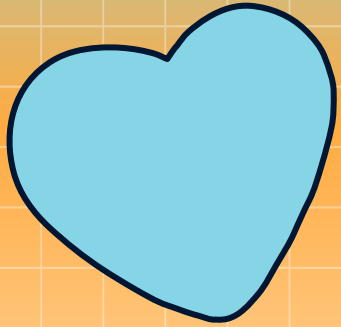
Gatekeeper		Counter-examples
Math Facts	A lack of computation understanding is a false constrain	Understanding Area / Volume can be without knowing your math facts.
Fluency - Speed	Using fluency speed as requirement to understanding concepts (Timed quizzes)	Understanding strategies is more important (Fluency standards taught without conceptual understanding)
Language	Vocabulary tends to come before understanding  Ability to read on grade level as indicator or solving word problems.	With majority of word problems written below grade level, students don't have access to experience with solving them.

# Scaffolding

<b>Areas of Concern</b>		<b>Scaffolding:</b>
<b>Cognitive Load</b>	Students have limited amount of mental energy for school. A focus should be around content rather than operations.	Routines Procedures Protocols
<b>Content Progression</b>	Essential standards have progressions that best support understanding	MAP continuum <u>Coherence Map</u>
<b>Learning Progression</b>	When students struggle with grade level content, teachers need to shift through the learning progression first.	Concrete, Semi-concret (pictorial), Abstract. (CSA)
<b>Word Problems</b>	Word problems need language dive for understanding what's going on as well as understanding the structure	Three Reads CSA Word Problem Structures



# Thanks!



What questions can I help you solve?