Many taken-for-granted practices in classrooms reflect and reproduce patterns of marginalization and oppression.

What are some of these common practices?
## Add, Subtract and Multiply (A)

Find each sum, difference or product.

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What does carpet time look like?

- Raised hand
- Eyes looking
- Faced forward
- Ears listening
- Crisscross, applesauce
- Hands in lap
- In your own space

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who is smart advanced students repetition
quick neat drill speed
rules discipline quiet memorization
good at math behind
rules of thumb
leveled individualized work
competition struggling learners
memorization
rules of thumb
competition
drill
quiet
speed
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struggling learners
behind
memorization
level
But our efforts to make change are still high-risk for reproducing patterns of racism and marginalization.

Let’s look.
What number does the orange arrow point to?
Explain how you figured it out.
VIDEO: ANIYAH AND TONI

This video and additional supporting materials are available online [here](#).
WHAT ARE LIKELY COMMON RESPONSES TO ANIYAH?

- “Nice job, Aniyah. Can someone help Aniyah out and show what the whole is on the number line?”

- “Thumbs up if you agree with Aniyah; thumbs down if you disagree.”
WHAT ARE LIKELY COMMON RESPONSES TO ANIYAH?

- “Nice job, Aniyah. Can someone help Aniyah out and show what the whole is on the number line?”
- “Thumbs up if you agree with Aniyah; thumbs down if you disagree.”

WHAT IS THE IMPACT?

- Aniyah is positioned as not smart.
- Aniyah’s mathematical points are sidelined.
- The mathematical work of the class is not supported.
- The class sees a Black girl positioned as a “struggling” learner.
WHAT ARE LIKELY COMMON RESPONSES TO TONI?

- “Toni, when you’re ready to participate appropriately by not playing with your hair and laughing, and have a question to ask, I will come back to you.”
- “You need to be a better listener, Toni. Aniyah already explained why she picked one-seventh. Who else has a real question for Aniyah?”
- “We show others respect in this classroom, Toni.”
WHAT ARE LIKELY COMMON RESPONSES TO TONI?

- “Toni, when you’re ready to participate appropriately by not playing with your hair and laughing, and have a question to ask, I will come back to you.”
- “You need to be a better listener, Toni. Aniyah already explained why she picked one-seventh. Who else has a real question for Aniyah?”
- “We show others respect in this classroom, Toni.”

WHAT IS THE IMPACT?

- Toni is positioned as not paying attention and off-task.
- Toni’s mathematical contributions are excluded.
- The mathematical work of the class is slowed.
- The class sees a Black girl positioned as a “troublemaker” and not contributing.
Why does this happen?
Teacher: Who would like to try to explain what you think the answer is? And show us your reasoning by coming up to the board?

Dante: Okay, Angie?

Angie: Okay? That's okay because we're learning something new.

Teacher: Okay, Angie?

Angie: Playing with hair.

Other children: Laying on arms.

Teacher: When someone's presenting at the board, what should you be doing?

Students in chairs: Looking at them.

Teacher: Looking at that person.

Angie: Umm, huh?

Teacher: You want me to write it?

Teacher: You're trying to mark what you think the number is and explain how you figured it out.

Teacher: Listen closely and see what you think about her reasoning and her answer. (Angie writes 11 by the orange one.)

Angie: But she did one-seventh because there's...

Dante: Two to Ten Card- (continues to talk) Because there's seven equal parts, one, two, three, four, five, six, and seven. (Goes her figures to count the parts of the number line.)

Teacher: Before you agree or disagree, I want you to ask questions if there's something you don't understand about what she did.

Dante: But how do you figure that out?

Teacher: Okay, Tom, what's your question for her?

Tom: Fourth grade counting across rows.

Teacher: Go ahead, it's your turn.

Angie: Why did you pick one-seventh?

Teacher: Why did you pick one-seventh?

Dante: Yeah, what's your question for her?

Angie: You did not.
TEACHING IS DENSE WITH “DISCRETIONARY SPACES”
DISCRETIONARY SPACES IN JUST THESE FEW SECONDS

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Talk</th>
<th>Discretionary space</th>
</tr>
</thead>
</table>
| Teacher | Who would like to try to explain what you think the answer is? And show us your reasoning by coming up to the board? And you know, it might not be right. That’s okay because we’re learning something new. I’d like someone to come up and sort of be the teacher and explain how you are thinking about it. Would you like to try that this morning? | 1. Deciding when to open whole-group discussion  
2. Deciding what to do to launch discussion  
3. Framing the expectation for presenting  
4. Framing what it “coming to the board” entails |
| Toni   | Playing with hair | 5. Selecting a student to present |
| Other student | Laying on arms | 6. Deciding whether to comment  
7. Deciding whether to comment |
| Teacher | When someone’s presenting at the board, what should you be doing? | 8. Setting norms for what to do when a student is presenting |
| Students in chorus | Looking at them. | 9. Responding to students |
| Teacher | Looking at that person. | 10. Taking up an individual student question |
| Arnyah | You want me to write it? | 11. Clarifying task |
| Teacher | You’re trying to make what you think this number is and explain how you figured it out. | 12. Setting task for the other students |
| Arnyah | I put one-seventh because there’s- | 13. Responding to student |
| Toni | Did she say one-seventh? | 14. Setting task for responding to student explanation |
| Arnyah | Yeah, (continues to count) Because there’s seven equal parts, like one, two, three, four, five, six, and then seven. (Uses her fingers to count the parts on the number line.) | 15. Responding to student |
| Teacher | Before you agree or disagree, I want you to ask questions if there’s something you don’t understand about what she did. No agreeing and disagreeing. Just- All you can do right now is ask Arnyah questions. Who has a question for her? | 16. Responding to student speaking across room |
| Teacher | Okay, Toni, what’s your question for her? | 17. Responding to student speaking across room |
| Omare | You did too! | 18. Responding to student speaking across room |
| Toni | Willy did (laughs at another student who says something to her from across the room) | 19. Responding to student speaking across room |
| Teacher | Go ahead. It’s your turn. | 20. Responding to student speaking across room |
| Toni | Why did you pick one-seventh? | 21. Responding to student speaking across room |
| Omare | You did not! | 22. Responding to student |

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DISCRETIONARY SPACES IN JUST THESE FEW SECONDS
### DISCRETIONARY SPACES IN JUST THESE FEW SECONDS

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Talk</th>
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<tbody>
<tr>
<td>Teacher</td>
<td>Okay, Anyah?</td>
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<tr>
<td>Toni</td>
<td>Playing with hair</td>
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<tr>
<td>Other student</td>
<td>Laying on arms</td>
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<tr>
<td>Teacher</td>
<td>When someone's presenting at the board, what should you be doing?</td>
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<tr>
<td>Students</td>
<td>Looking at them.</td>
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<tr>
<td>Teacher</td>
<td>Uh huh?</td>
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<tr>
<td>Anyah</td>
<td>You want me to write it?</td>
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<tr>
<td>Teacher</td>
<td>You're trying to ask what you think this number is and explain how you figured it out.</td>
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<tr>
<td>Anyah</td>
<td>Listen closely and see what you think about her reasoning and her answer. (Anyah writes 1 in by the orange line).</td>
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<tr>
<td>Anyah</td>
<td>I put one-seventh because there-</td>
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<tr>
<td>Toni</td>
<td>Did she say one-seventh?</td>
</tr>
<tr>
<td>Anyah</td>
<td>(bumps to Toni) Yeah, (continues to close) Because there's seven equal parts, like one, two, three, four, five, six, and then seven. (Uses her fingers to count the parts on the number line).</td>
</tr>
<tr>
<td>Teacher</td>
<td>Before you agree or disagree, I want you to ask questions if there's something you don't understand about what she did. No agreeing and disagreeing. Just- All you can do right now is ask Anyah questions. Who has a question for her?</td>
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<td>Teacher</td>
<td>Okay, Toni, what's your question for her?</td>
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<tr>
<td>Other student</td>
<td>You did it!</td>
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<tr>
<td>Toni</td>
<td>Willy did! (laughs at another student who asks something to her from across the room)</td>
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<td>Go ahead, it's your turn.</td>
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<tr>
<td>Toni</td>
<td>Why did you pick one-seventh?</td>
</tr>
<tr>
<td>Other student</td>
<td>You did not!</td>
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<tr>
<td>Teacher</td>
<td>Let's listen to her answer now. That was a very good question.</td>
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1. Discouraging when key words are misheard or misunderstood. |
2. Discouraging when key words are misheard or misunderstood. |
3. Framing the expectation for presenting. |
4. Framing what it “coming to the board” entails. |
5. Selecting a student to present. |
6. Deciding whether to comment. |
7. Deciding whether to comment. |
8. Setting norms for what to do when a student is presenting. |
9. Responding to students. |
10. Taking up an individual student question. |
11. Clarifying task. |
12. Setting task for the other students. |
13. Responding to student. |
14. Setting task for responding to student's elaboration. |
15. Responding to student speaking across room. |
16. Responding to student speaking across room. |
17. Responding to student laughing. |
18. Responding to student speaking across room. |
19. Responding to student laughing. |
20. Responding to student.
VIDEO: RE-VIEW AND RE-LISTEN TO THESE DISCRETIONARY SPACES

These videos and additional supporting materials are available online [here](#).
LOOKING AT THE MICRO THROUGH THE MACRO: BLACK GIRLS’ RATES OF SUSPENSION

Epstein, Blake, & González (2017)
DISPROPORTIONALITY IN ASSIGNMENT TO “ABILITY STATUS”

- Black students: 16.7% of student population; 9.8% of those selected to gifted programs
- Latinx students: 22.3% of student population; 15.4% of those selected to gifted programs
- 6.2% of all students are assigned to gifted programs; 10% of Asian students, 7.5% of White; 3.6% of Latinx; 3% of Black
- Black students are 2x as likely to be classified as having learning or emotional problems (special ed)
- Exclusion from class reduces opportunity to learn.
- Exclusion from rigorous content; long-term effects of labeling.
- Lack of access to accelerated and enrichment programs.

1. Teacher’s race affects gifted program selections, Joan Brasher, Research News @ Vanderbilt, January 18, 2016
WHAT REGULARLY FILLS THE DISCRETIONARY SPACES IN TEACHING?

1. Teachers’ experiences in a society filled with racism and oppression.
2. Normalized practices in schools that institutionalize dominant values and habits.

Lortie (1975), Banks, Grant and Koskela, Moll Anyon (1981), Heath, Martin, Tuck Ball (2018)
WHAT REGULARLY FILLS THE DISCRETIONARY SPACES IN TEACHING?

1. Teachers’ experiences in a society filled with racism and oppression.

2. Normalized practices in schools that institutionalize dominant values and habits.

Professional education does not effectively intervene on these.

Lortie (1975), Banks, Grant and Koskela, Moll Anyon (1981), Heath, Martin, Tuck Ball (2018)

Professional education and teaching experience often teach these.
WHAT WOULD IT TAKE TO DISRUPT THE PATTERNS THROUGH WHICH BLACK GIRLS ARE MARGINALIZED?

WHAT WOULD IT TAKE TO DISRUPT THE PATTERNS THROUGH WHICH BLACK GIRLS ARE MARGINALIZED?

- Seeing Aniyah’s explanation and Toni’s question as key to the class’s work

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- Seeing Aniyah’s explanation and Toni’s question as key to the class’s work
- Taking as axiomatic the brilliance of Black children, and thus Toni and Aniyah
- . . . And having something different to do

VIDEO: ANIYAH AND TONI

Toni: Why did you pick one-seventh?
Student: You did not.

This video and additional supporting materials are available online here.
USING DISCRETION TO DELIBERATELY DISRUPT THE PATTERNS THROUGH WHICH BLACK GIRLS ARE MARGINALIZED

COUNTERING THE PATTERN
- Acknowledge publicly the importance of Toni’s question.

WHAT IS THE IMPACT?
- Toni is trusted, seen, and recognized for her contribution to the mathematical work:
  - The mathematical precision of her question
  - Asking Aniyah a question instead of disagreeing.
ANIYAH
• Identified the “whole” as 0 to 1 on the number line

TONI
• Modeled at the board a complete explanation of how to understand and identify a fraction on the line

THE OTHER CHILDREN
• Developed a depth of understanding of fractions as numbers on the line and how to explain them
• Saw Black girls’ brilliance
WHAT DOES IT MEAN TO SAY—

. . . that our efforts to make change are still high-risk for reproducing patterns of racism and marginalization?
Many taken-for-granted teaching practices insidiously reproduce patterns of racism, sexism, and ableism.

- Some of these we have deliberately learned as part of “math reform” or professional development.
- Some we have inherited or absorbed from our deep immersion in schools as children and as educators.
- We often have not had opportunities to stand back and consider their effects.
HOW DO OUR PRACTICES REPRODUCE OR HAVE THE POTENTIAL TO DISRUPT THESE PATTERNS?
Who might be at risk in this clip?
What patterns is this related to?
And there's four parts equaling one whole, so- And there's kind of like one, two, and these two parts are together, so it's kind of like two-fourths.
KATHERINE AND DANTE

WHAT MIGHT HAPPEN NEXT?

- Teacher: “Thumbs up if you agree with Katherine; thumbs down if you disagree.”

- Another student: “I disagree with Katherine. You aren’t supposed to count the 0.”

- “You need to listen if you ask someone a question, Dante.”

WHY?

- Teaching practices that are taken-for-granted as good, but that reinforce status hierarchies

- Norms of classroom discourse; Katherine’s positioning in class, patterns of how ELL students are perceived

- Focus on behavior over ideas, Dante’s positioning in class, patterns of perception related to Black boys
SO WHAT DOES IT TAKE TO DISRUPT PATTERNS OF RACISM RELATED TO DISCIPLINE?

**AWARENESS OF PATTERNS**
- Knowing these data and patterns of over-punishment of Black and Brown children
- Understanding that they are the result of cultural, historical, and societal patterns
- Understanding how these patterns shape White children’s leaning about race

**DISRUPTING PATTERNS**
- Consciously NOT following or reproducing the patterns
- **Examples:**
  - Interrogating how you think about “control”
  - Not calling a student out for minor behavior that is not distracting anyone but bothers you
  - Engaging students deliberately in high-status specific roles (e.g., share solutions, call on other students)
  - Publicly acknowledging mathematical (or other) competence
WHAT ABOUT DISRUPTING PATTERNS OF OPPRESSION RELATED TO “ABILITY”?

AWARENESS OF PATTERNS

- Becoming critically conscious of common and normalized patterns of “positioning” and “trait” ability language
- Understanding that this is connected to race, class, and gender
- Knowing these patterns on assignment to special education and gifted/talented programs
- Understanding that they are the result of cultural and societal patterns

DISRUPTING PATTERNS

- Consciously NOT following or reproducing the patterns by not using this language and instead being concrete:
  - Examples:
    - Describing what a child is doing or their work on a specific task (e.g., “understands that naming a fraction involves the concept of equal parts,” not who or what they are (e.g., “struggling” or “below grade level”)
    - Deliberately attending to what students can do and do know, not just what they can’t do or don’t know
    - Choosing and using tasks that open up content (e.g., low bar/high ceiling; multiple solution paths or answers)
AND DISRUPTING PATTERNS OF RACISM AND OPPRESSION RELATED TO MATHEMATICS?

AWARENESS OF PATTERNS

- Mathematics as seen as intellectually demanding and “smart”
- What often counts as “being good at math” (e.g., speed) and consequences for who is seen as “smart”
- Images of who mathematicians are
- Boys, White and Asian, and stereotypes

DISRUPTING PATTERNS

Consciously NOT reproducing the patterns by:

- Constructing mathematical work that disrupts societal ideas about what math is
- Deliberately intervening on who is positioned as “smart”
- Foregrounding examples of children doing mathematically valued things
- Creating norms of discourse that are respectful and inclusive while also supporting disagreement and argument
“Teaching is a revolutionary act.”

Dr. Marcelle Haddix
TEACHING HAS INCREDIBLE POWER FOR GOOD—OR HARM . . .

. . . through the infinitely many discretionary spaces in our practice.
LEARNING TO SEE AND USE THE DISCRETIONARY SPACES IN OUR PRACTICE

- Become aware of the density of taken-for-granted and normalized practices that reflect Whiteness and oppression
- Notice and understand how much of our practice is based on these, and that these are habits
- Work on breaking habits that are rooted in racism and oppression
- Develop new repertoires of practice and new habits and learn to scrutinize these critically
THE POWER OF TEACHING AS AN OPPORTUNITY FOR JUSTICE, AND AN IMPERATIVE

1. Even classrooms that are rich in rigorous mathematics and discourse are high-risk for reproducing patterns of racism and marginalization.

2. Teaching has a lot of power to avert and disrupt these.

3. But without conscious effort, we are all likely to reproduce these patterns.
“We are going to have to take upon ourselves a disciplined and continuing effort, with no real hope that, in our lifetime, we are going to be able to take a vacation from the struggle for justice.”

Rev. James Reeb

Reaching for the possibilities and the power is our collective work.
THANK YOU!
dball@umich.edu
Slides will be available on my website
https://deborahloewenberngball.com/
(“Google” Deborah Ball)
Image on slide 3:
Photo from “Cause for Alarm: Addressing North Carolina Early Childhood Suspension and Expulsion Rates,” by Ebonyse Mead, MA, MS, CFLE and Kara Lehnhardt, MBA

Image on slide 3:
Photo from “5 Ways to Save Face After Making Mistakes at Work,” by Robert Half

Image on slide 3:
“The Adding, Subtracting and Multiplying with Facts From 0 to 9 (A) Math Worksheet Page 1”
Retrieved from https://www.math-drills.com/multiop/mixed_operations_asm_vertical_100_0009_0009_001.php
CREDITS

Data on slides 26:

Image on slide 48:
Photo of Marcelle Haddix.
Retrieved from http://soe.syr.edu/about/member.aspx?fac=4

Image on slide 52:
Photo of James Reeb.