Increasing the Rigor of Instruction

March 28, 2024

CALIFORNIA DEPARTMENT OF EDUCATION

Tony Thurmond, State Superintendent of Public Instruction

Welcome and Get to Know You

In the chat, share (2 min)

- Name, position, & organization
- '**Win**' at your school from Quarter 2
- **Ways** you celebrate students for their effort on SBAC

Sign-In Sheet: https://forms.gle/cXupwigpYfi5kwnp7

Agenda

Introductions and Welcome

Strategy 1: Increase student discourse in the classroom through use of Habits of Discussion

Strategy 2: Increase students' cognitive lift in math using CASE and Concrete, Representational, and Abstract teaching (CRA).

Strategy 3: Align vision for your role with students with daily routines and systems.

Thank you and Survey

Our Mission

Navigator Schools equip students to become learners and leaders in high school, college, and beyond.

We develop top tier teams of educators who continuously improve and innovate schools that deliver phenomenal outcomes for all students regardless of their circumstances.

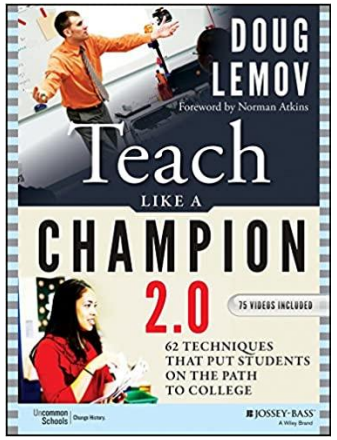
Navigator Schools

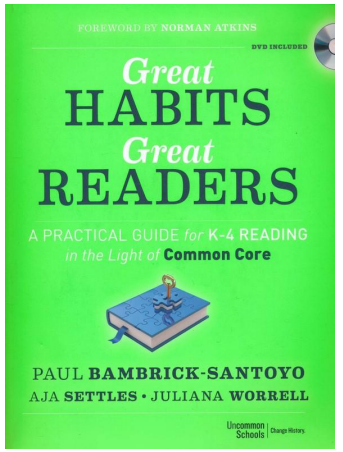
Our Influencers

Navigator Schools' **instructional strategies** are influenced by and adapted from the following resources and organizations.

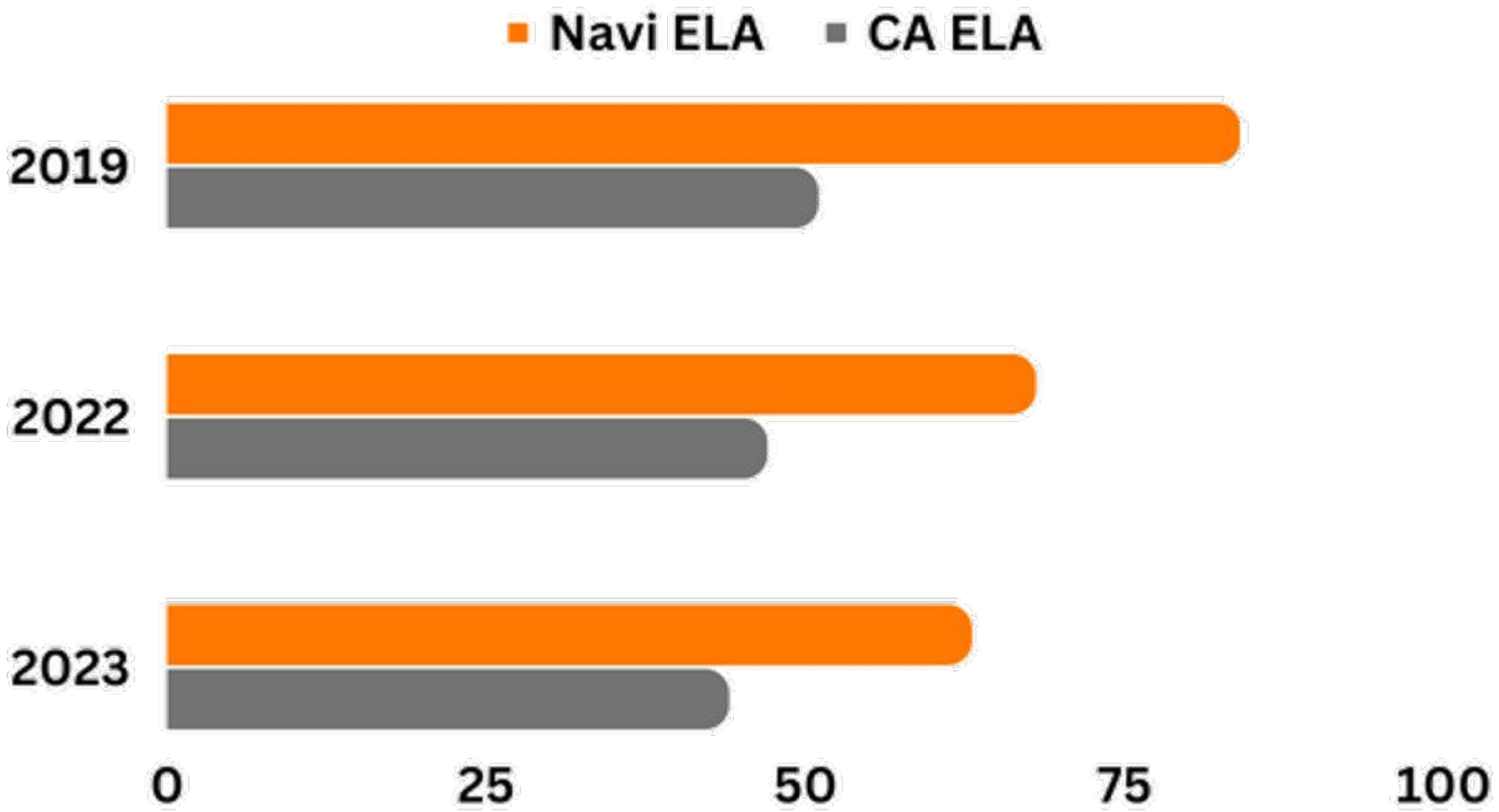
RELAY/GSE
GRADUATE SCHOOL of EDUCATION

Uncommon Schools

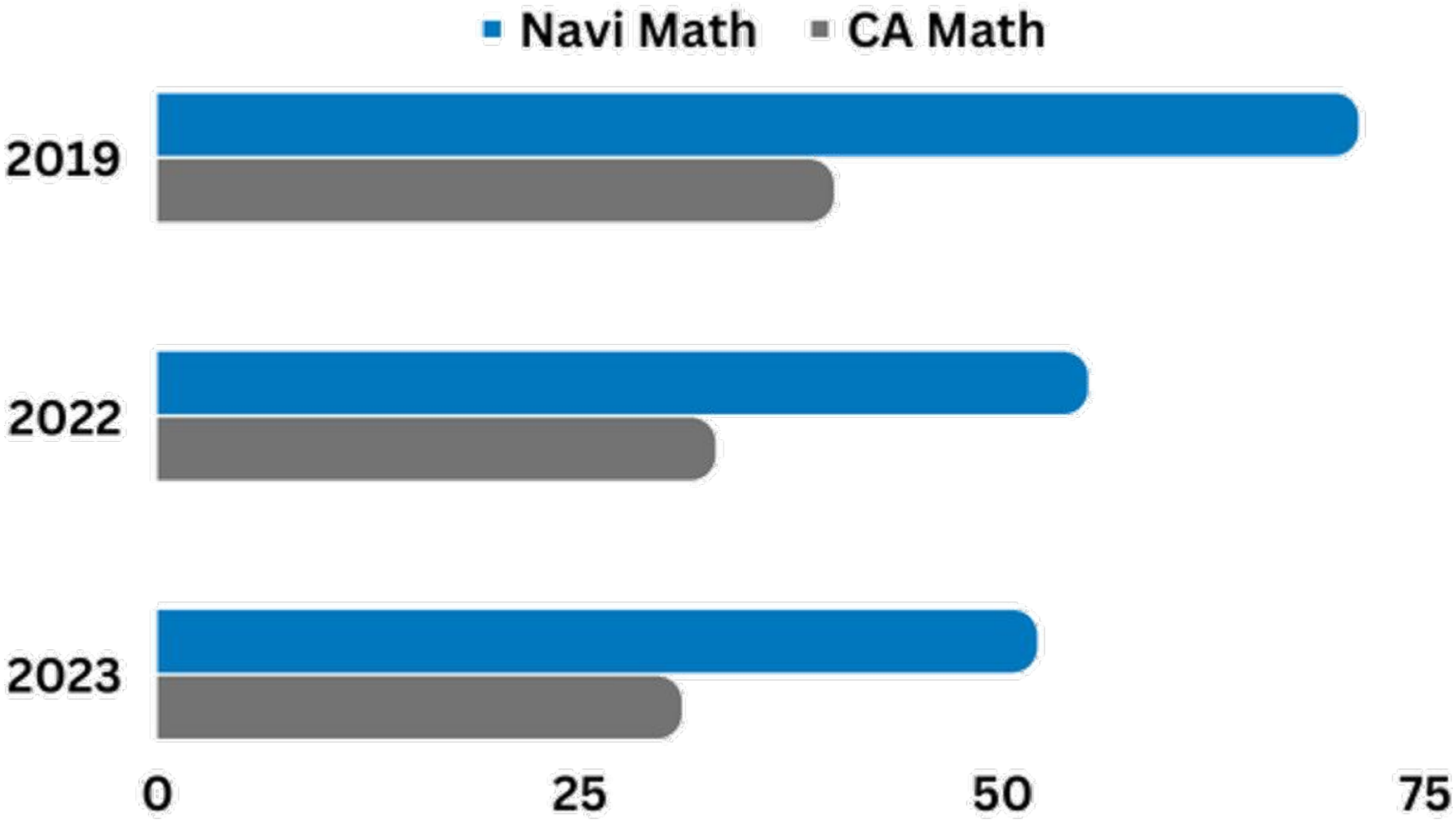




Navigator Results | ELA



Navigator Results | Math



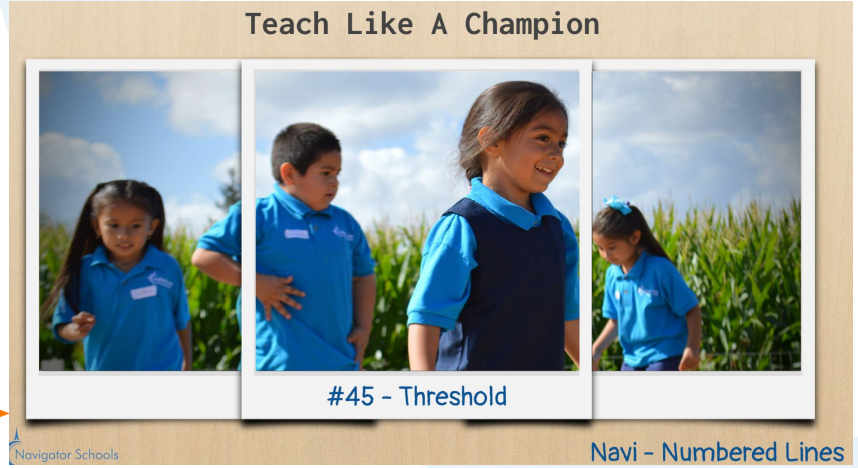
Consistent execution of simple strategies is the secret to our success.


CULTURE
CORE 3
RIGOR
DATA
COACHING

Core 3		
1: BUILDING A STRONG CLASSROOM CULTURE	2: PLANNING & IMPLEMENTING RIGOROUS INSTRUCTION	3: COLLECTING & USING DATA
ROUTINES & PROCEDURES	**TEACHERS: INTELLECTUAL PREP (IP)**	**COLLECTING DATA**
Threshold (TLAC)	Unpacking of Common Core Standards	Short-Cycle Formative Assessments
Tight Transitions	Writing Lesson Objectives	Tracking Not Watching (TLAC)
Engineer Efficiency / Procedures (TLAC)	Creating Assessment Exemplars	TNW: Naming the Lap
Entry Routine/ Do Now (TLAC)	Designing CFU Checkpoints	TNW: Coding System
Materials Management	Predicting Misconceptions	TNW: Teacher Data Tracker
Do It Again / 100% (TLAC)	**STUDENTS: HEAVY LIFTING**	Student Data Trackers
Work the Clock (TLAC)	Habits of Discussion (TLAC)	Daily Check for Understanding
Seat Signals	Targeted Questioning	Spiral Review
What to Do Directions (TLAC)	Every Minute Matters	Exit Ticket / Socrative
MUTUAL RESPECT	Wait Time (TLAC)	Show Me (Boards Up)
Classroom Rules	No Opt Out (TLAC)	**ANALYZING DATA**
SLANT (TLAC)	Guide From the Side (NAVI)	Post Assessment Analysis & Action Plan
Strong Voice (TLAC)	Batch Process (TLAC)	Look at data daily/weekly
Manage Callouts	Format Matters (TLAC)	Analyze misconceptions
Precise Praise (TLAC)	Show Call (TLAC)	Plan for action
Least Invasive Intervention (TLAC)	Everybody Writes (TLAC)	**RESPONDING TO DATA**
Positive Framing (TLAC)	At Bats (TLAC)	Targeted Intervention Groups
Culture of Error (TLAC)	Break It Down	During School Intervention
Art of the Consequence (TLAC)	**DEMONSTRATE & DEFEND**	After School Intervention
ENGAGEMENT	Showing Work in ELA: RACE	
Radar/ Be Seen Looking (TLAC)	Showing Work in Math: CASE	
Circulate (TLAC)	Thinking Maps	
Mirror Words (WBT)	Prove & Disprove	
Turn & Talk (TLAC) (pair/share)	Guided Discourse	
Cold Call (TLAC)	Close Reading	

Resource | One-Pagers

Navigator Schools Core 3 Threshold	
Why	Great teachers invest heavily into their classroom *procedures* - they provide students with explicit guidance on how to execute tasks such as working independently, transitioning, and asking questions. By fine tuning and reinforcing classroom procedures until they are "just right," over time, those procedures become automatic, or routine. *Investing in routines and procedures sets the stage for teachers to be able to dive into rigorous, meaningful instruction.*
Action Step	What: Instructional staff will greet scholars in the physical threshold of their rooms upon each entry into class in order to build culture, establish expectations and be able to monitor what is happening inside and outside of the classroom.
Break It Down	How: ❑ Have scholars line up outside of the room ❑ Reinforce your Do Now expectations ❑ Greet each scholar by name ❑ Take the time for Precise Praise or a connection comment ❑ Threshold is warm, quick, each student is greeted, expectations are clear and learning begins within two minutes
Learning Resources	Navi Threshold k-5 video Navi Threshold 6-8 video **Threshold Workshop**



Best Practices Workshop Series

Every Student, Every Lesson Series:

- **Session 1:** Build Culture, Influence Engagement
- **Session 2:** Differentiate Instruction
- **Session 3:** Increase the Rigor

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Habits of Discussion

How do you think these players learned to be such great volleyball players?

How could that translate to coaching students to become good conversationalists?

Video Link:
https://youtu.be/PyuYpvtrZWY

Students prepare for discussions by practicing conversational skills with coaching from their teacher.

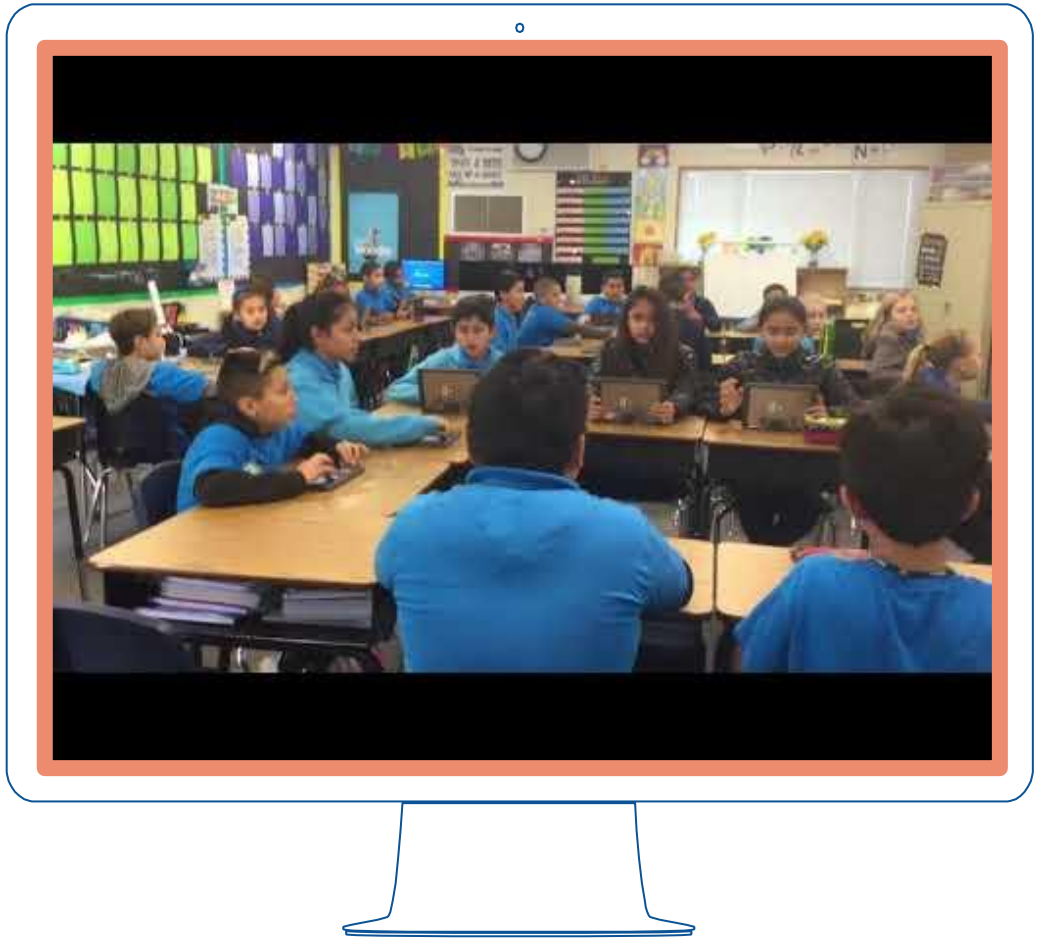
Habits of Discussion | Basic Strategies

1. SLANT
2. Hand Signals
3. RACE [ELA]
4. CASE [Math]

1. SLANT

Exactly what do the students do when teachers ask for SLANT?

What is the advantage of having such a tool that is used campus-wide?



Video Link:
https://youtu.be/nFDtpWLpbXY?feature=shared

SLANT Defined

Sit up

Listen

Ask and Answer questions

Nod when you agree

Track the speaker

Discussion

How does SLANT build classroom/campus culture?

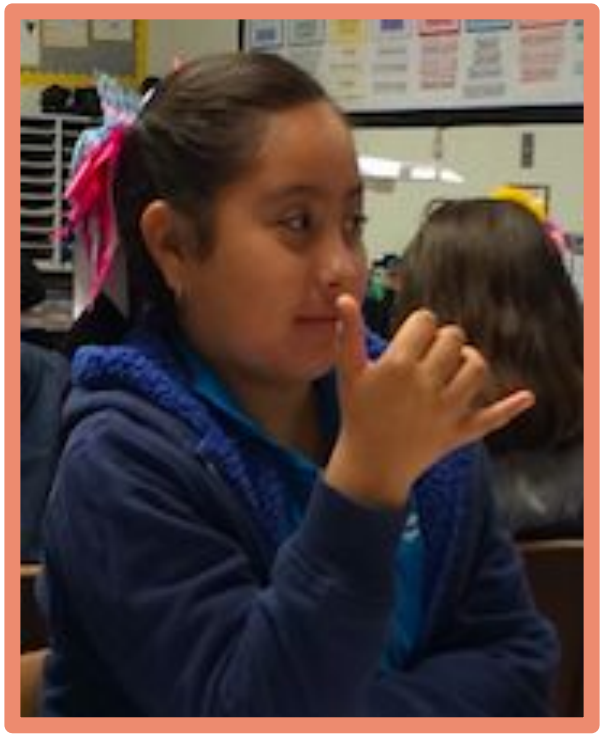
How does SLANT prepare students for academic success?

2. Hand Signals

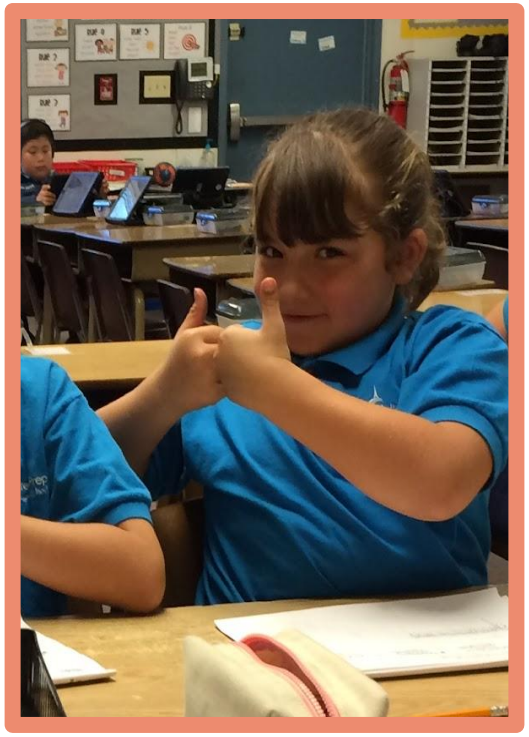
How are students participating with hand signals?

How does pair/share contribute to group discussion?

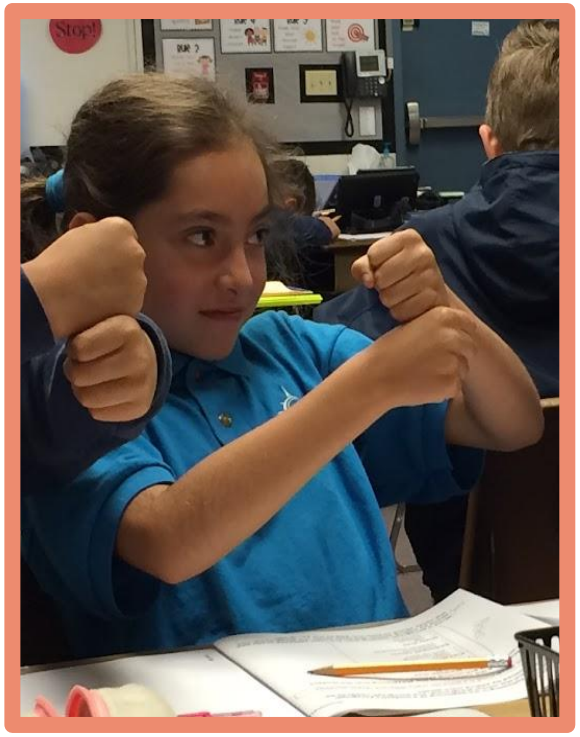
Hand Signals | Name It



Agree

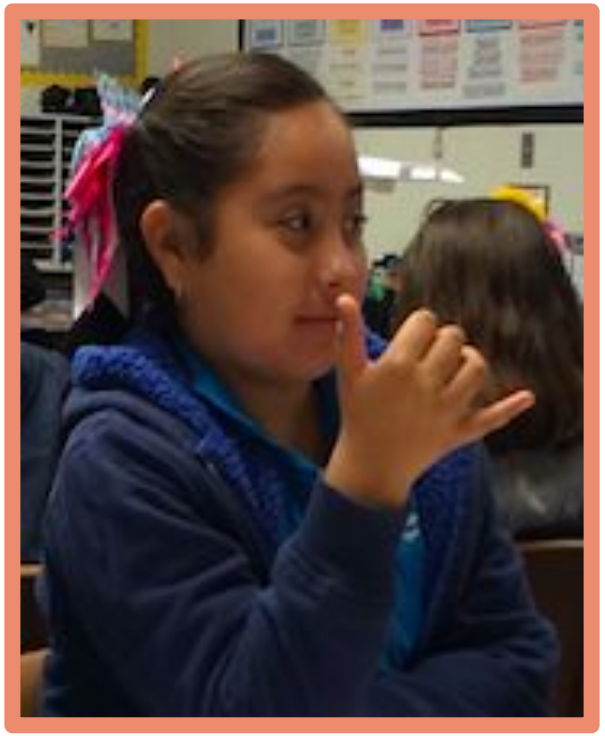


Disagree



I want to build

Agree Sentence Stems



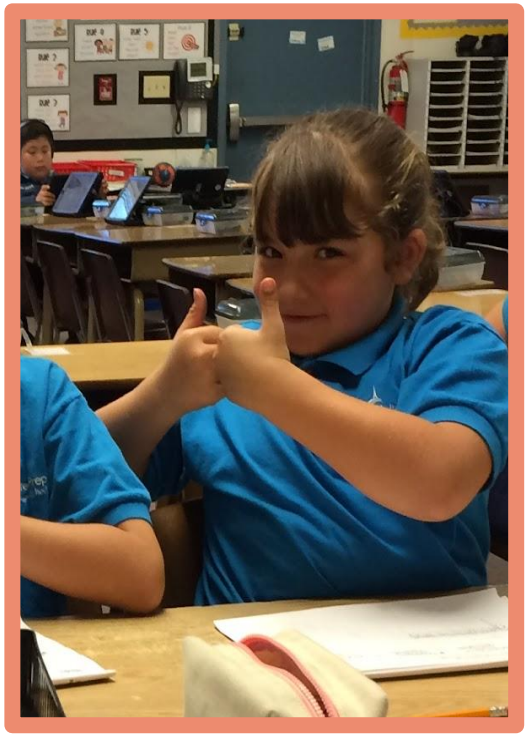
Agree

I agree with _____ because...

_____ and I are in agreement because...

I concur with _____ due to the fact that...

Disagree Sentence Stems



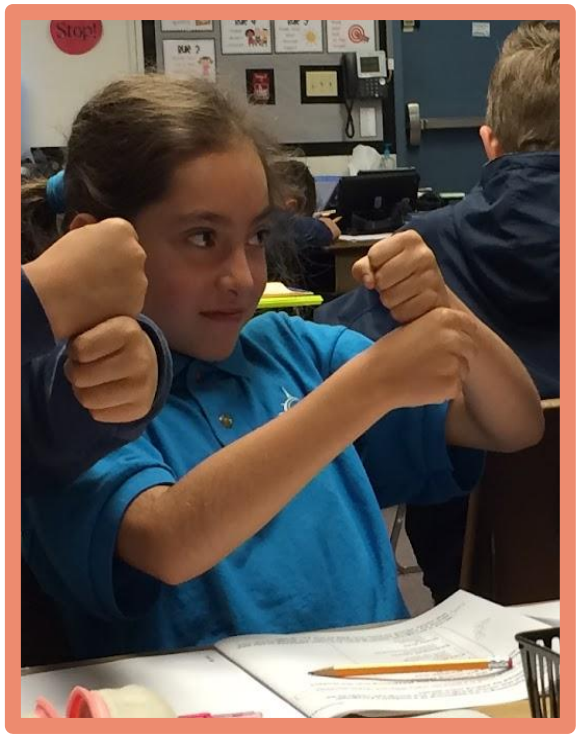
Disagree

I disagree with ____ because...

I am in disagreement with ____ because...

I would like to challenge ____’s idea by stating that...

Build-On Sentence Stems



I want to build

I want to build on what _____ said by saying...

I would like to add that...

In addition to _____'s point, I would like to add...

Discussion

What effect do hand signals have on student engagement?

What effect do hand signals have on behavior?

Reflection

1 minute to write
1 minute to share

1. What is the impact of SLANT and hand signals?

2. What are your next steps for teaching the strategies?

Agenda

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Strategy 3: Align vision for your role with students with daily routines and systems.

Thank you and Survey

C.R.A.

Concrete, Representational, Abstract

Do Now

- Be Prepared to take notes
- **Begin working** as soon as you see the next slide

Do Now

Question: Simone sees two red birds (r) for every blue bird (b) If Simone sees a total of 12 red birds which equation can show how many blue birds she sees?

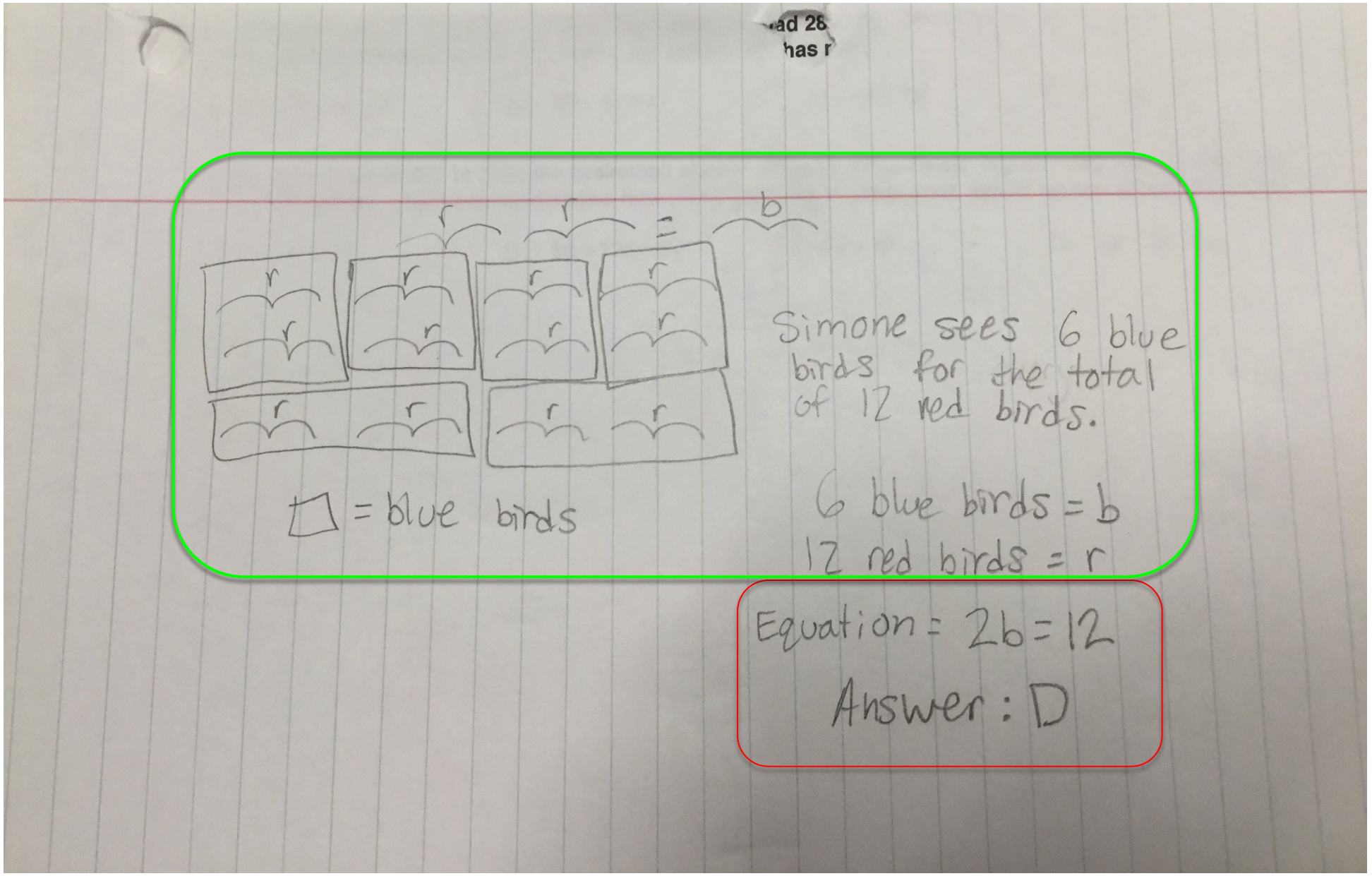
A. $b/2 = r$

B. $b = 24$

C. $r*b = 12$

D. $2b = 12$

Do Now


ad 28
has r
r r = b
r r r r
r r r r
r r r r
= blue birds
Simone sees 6 blue birds for the total of 12 red birds.
6 blue birds = b
12 red birds = r
Equation: 2b = 12
Answer: D

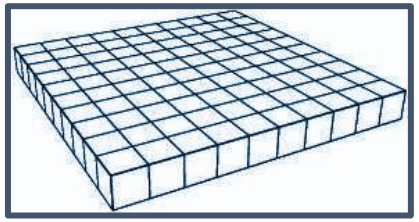
Thought Questions

Share in the chat (1 min)

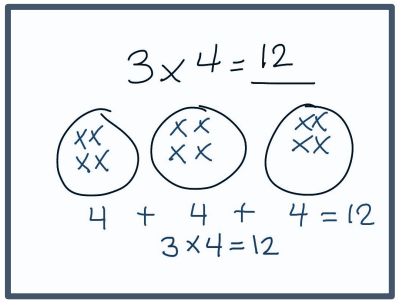
- What process did you go through to decode this problem?
- What worked well?
- Were there any misconceptions? Why?

Vocabulary

Concrete: Hands on models and manipulatives



Representational: pictorial representations of mathematics problems



Abstract: mathematics problems with numbers and symbols

$$\begin{array}{r} 42 \\ \times\ 2 \\ \hline 84 \end{array}$$

TED Talk

As you watch this video be prepared to define concrete, representational and abstract using examples.

Video Link:

https://www.youtube.com/watch?v=3icoSeGqQtY

Core Idea

The CRA approach in math education is important because it promotes a deep and meaningful understanding of mathematical concepts, supports diverse learners, and provides a solid foundation for more advanced mathematical thinking and problem-solving.

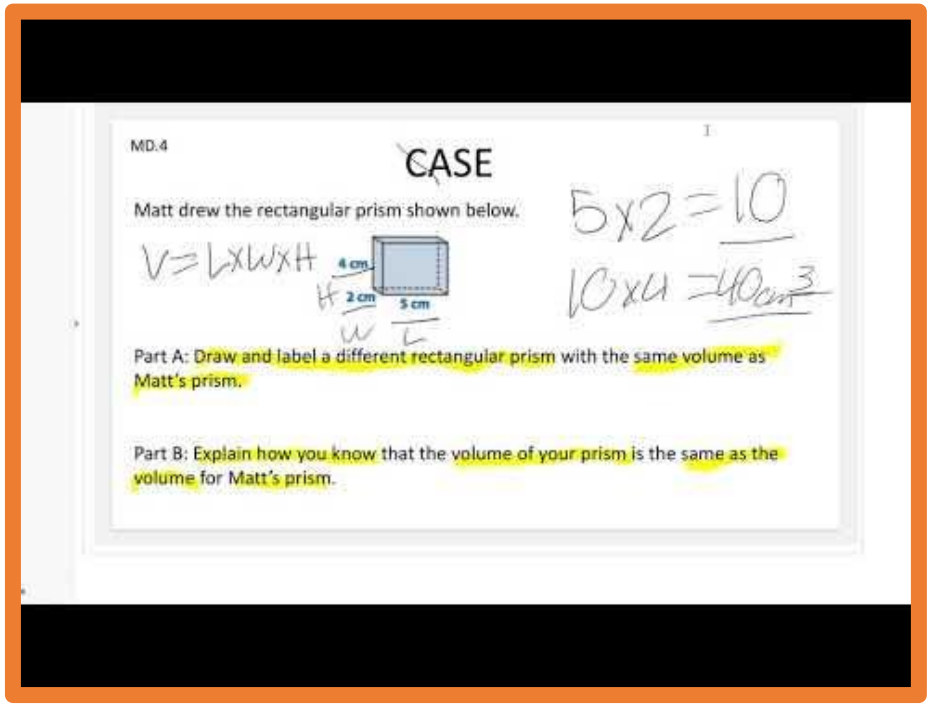
CASE Student Model

Watch at this student models CASE

- As you watch, take notes about what each letter of **CASE** stands for -and- why each is important.

Video Link:

https://www.youtube.com/watch?v=Ef3czqyr4H8



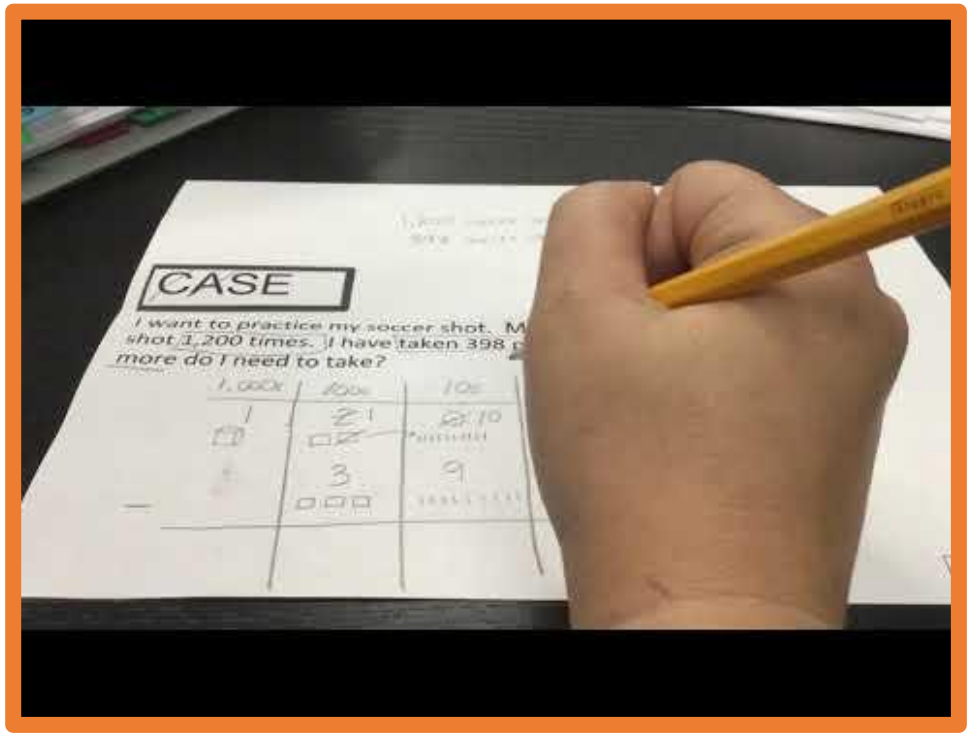
CASE Teacher Prep

Watch as this teacher creates a CASE Exemplar

- Think about why this process of creating **CASE exemplars** for each standard would be helpful to you.

Video Link:

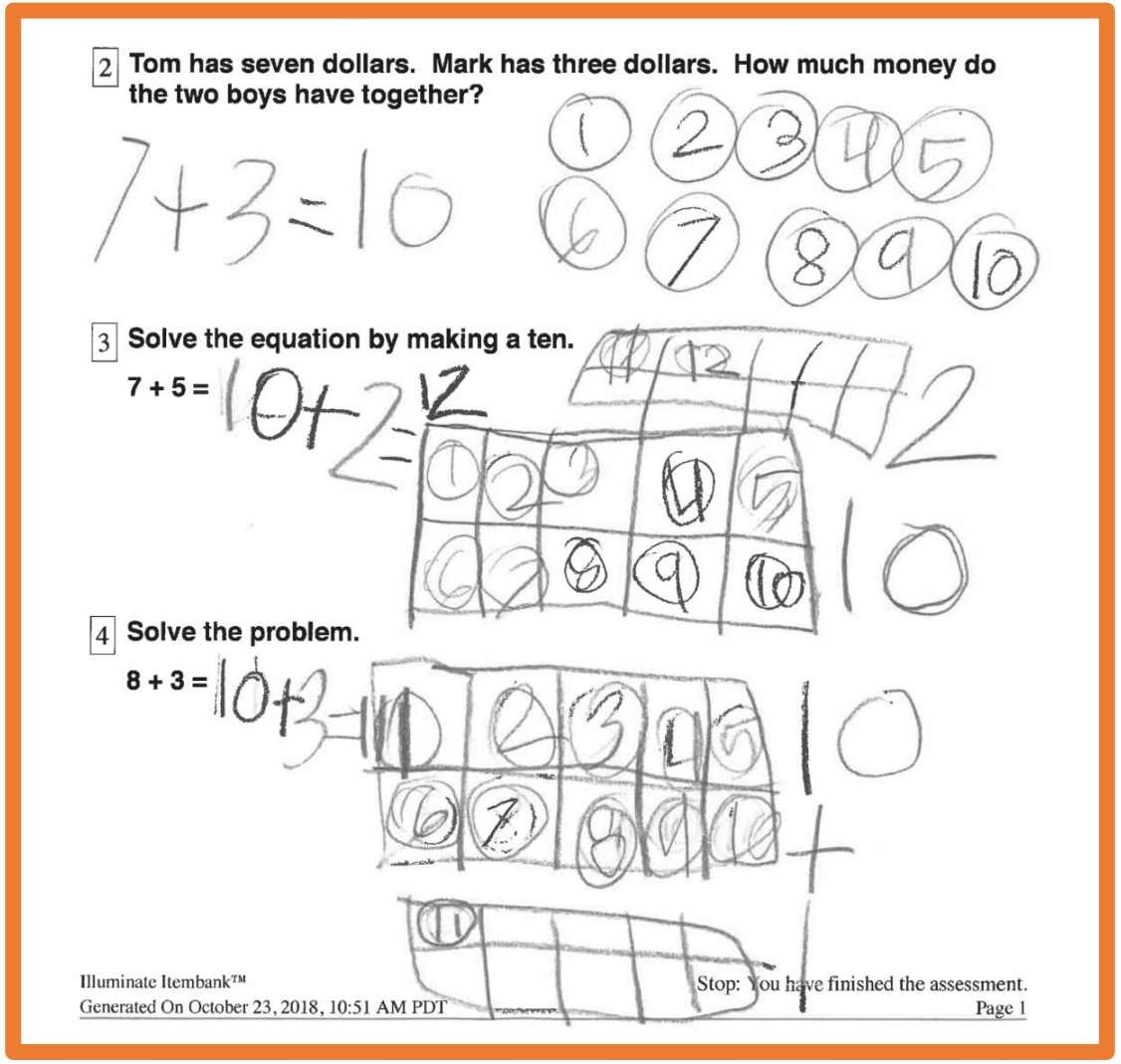
https://www.youtube.com/watch?v=5DWgw-_yTL4



CASE | See It

K-2 Student Work Sample

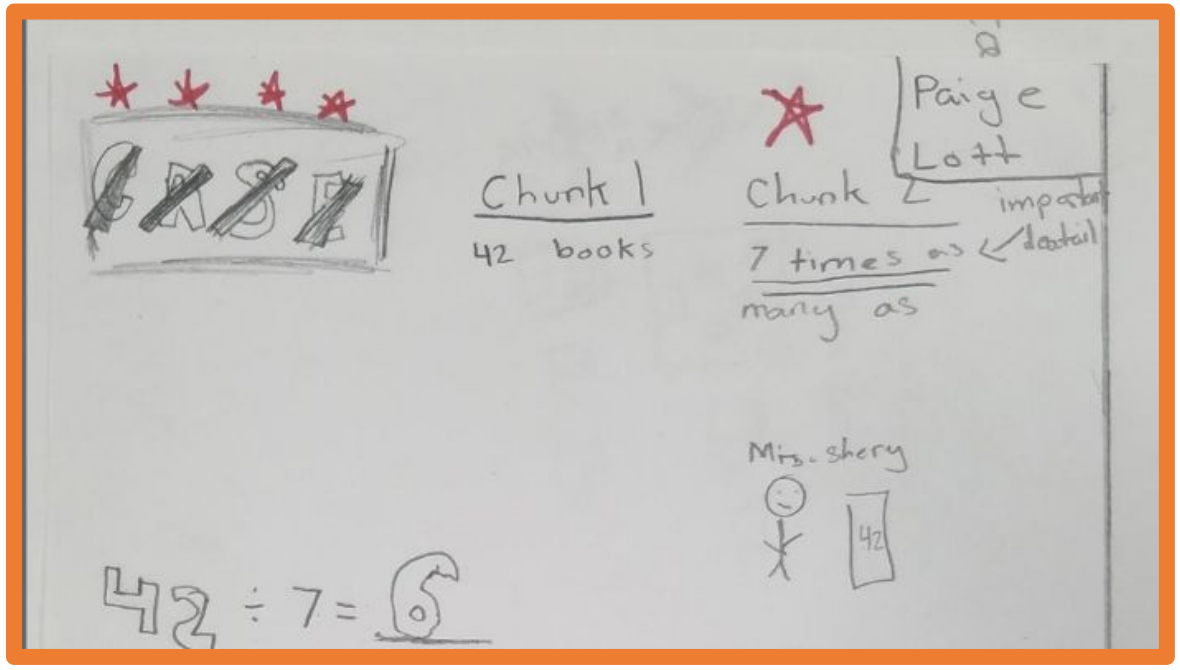
- Where do you see students modeling their thinking in the example?

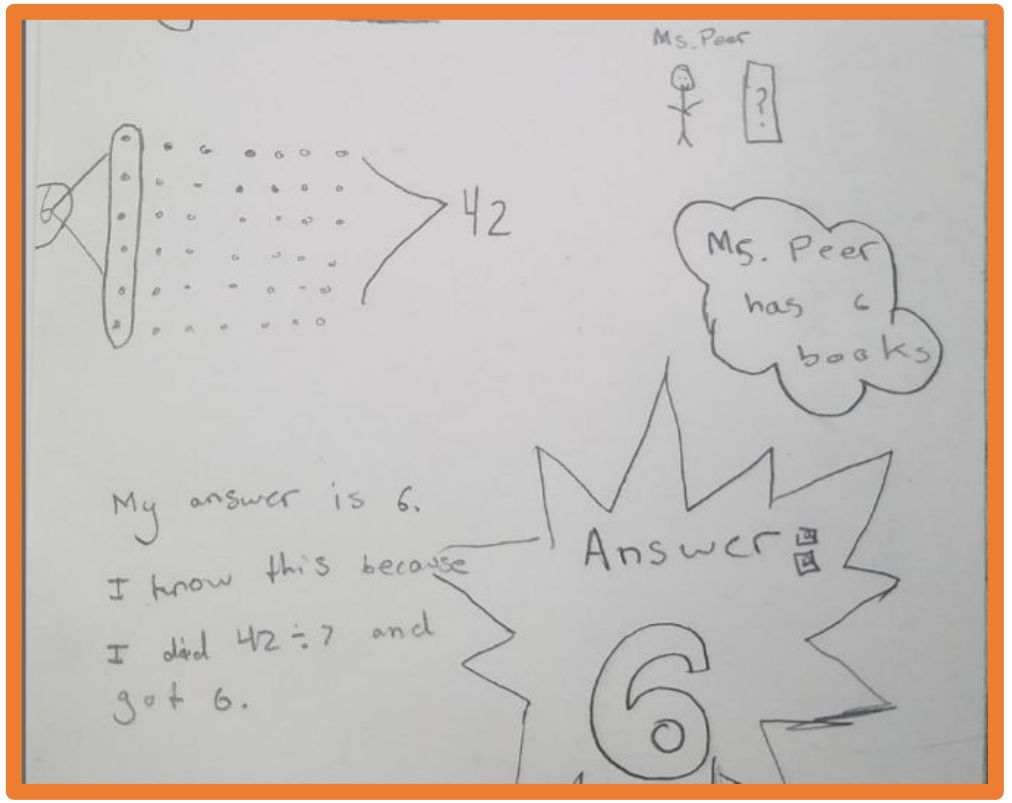


CASE | See It

3-5 Student Work Sample

- Where do you see students modeling their thinking in the example?





CASE | Name It

CASE holds students accountable for:

- Close reading
- **Demonstrating** their thinking through representational drawings
- **Defending** their thinking

CASE | Name It

- **Front-load** year long standards to give students time to master these tough standards. (re-grouping, multiplication, etc.)
- Use data to **review standards** they need to practice to ensure students master all standards.
- Front-load **Measurement & Data** as well as **Geometry** from the beginning of the year. In these units, students will already know the concepts and vocabulary.
- **Use open ended questions** allowing for the problem to be tailored to the students' needs.

Do not underestimate spiral review, as this part of the day is the key to closing the gaps & practicing CASE!

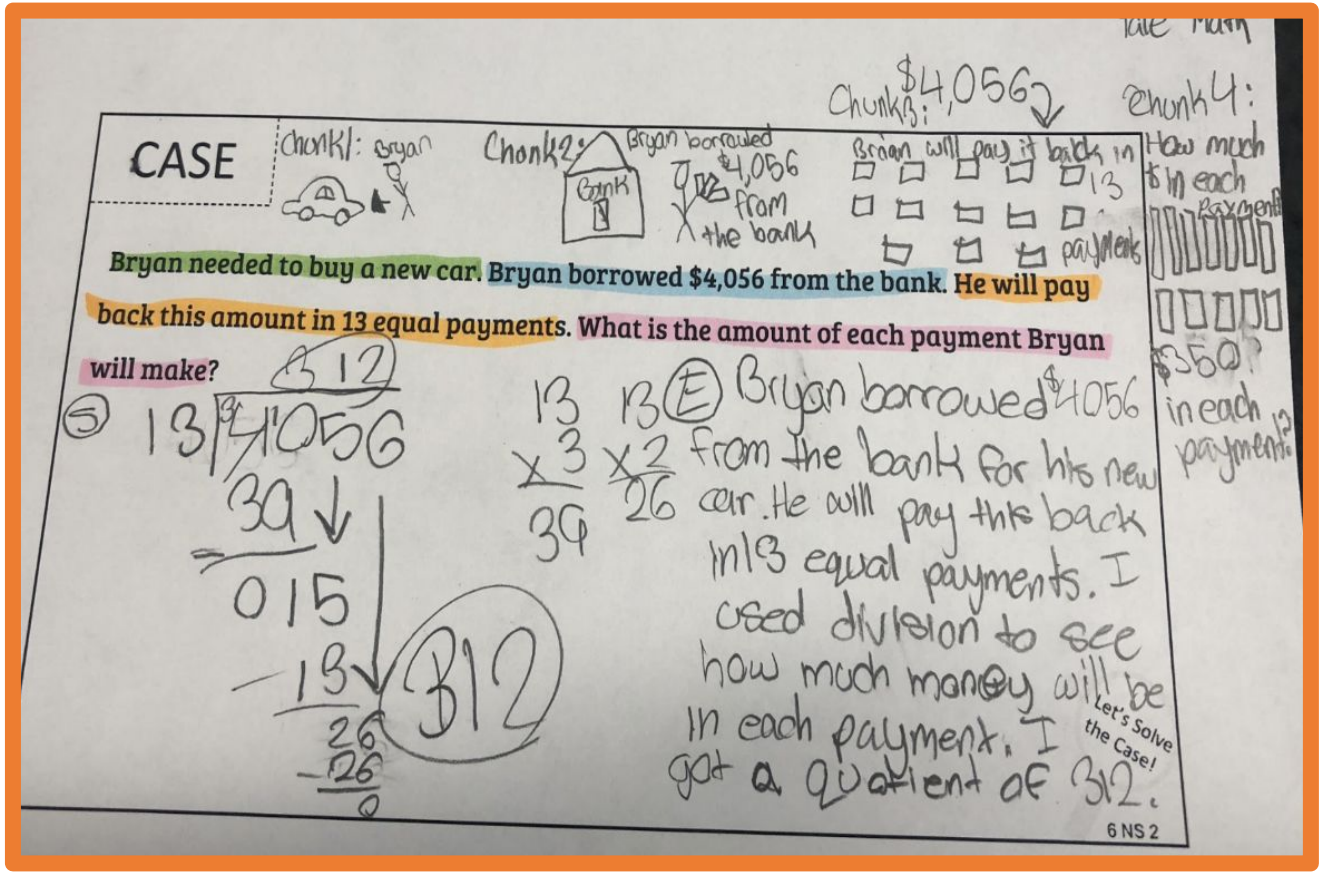
CASE | Name It

C/B	Chunk important information	Circle key information	Box key chunks of information
A	Annotate a model	Annotate a model	Annotate a model
S	Solve	Solve	Solve
E	Explain	Explain	Explain

CASE | Name It

CASE Work Sample

- Where do you see each part of CASE in this student's work?



CASE | Name It

STEP 1

Circle / Underline Key

Chunks of Information

Brenda has 18 M&M's and Paola has 10. How many more M&M's does Brenda have than Paola?

CASE | Name It

STEP 2

Annotate a Model

(as you chunk)

1	2	3	4	5
6	7	8	9	10

Paola

1	2	3	4	5
6	7	8	9	10
11	12	13	14	
15	16	17	18	

Brenda

Brenda has 18 M&M's and Paola has 10. How many more M&M's does Brenda have than Paola?

CASE | Name It

STEP 3

Solve

Brenda has 18 M&M's and Paola has 10. How many more M&M's does Brenda have than Paola?

CASE | Name It

STEP 4

Explain (oral or written)

Brenda has 18 M&M's and Paola has 10. How many more M&M's does Brenda have than Paola?

CASE | Reflection

Share in Chat [2 min]

- **How often** should students use CASE?
- How can you mitigate those challenges?

Core Idea

The CASE strategy empowers students with a systematic, comprehensive approach to tackling math problems, ultimately leading to improved understanding, accuracy, and confidence in their mathematical abilities.

CRA & CASE | Reflection

Share in Chat [2 min]

- How does the CRA method help students learn math, and can you share an example?

- How does CASE improve students' math problem-solving abilities, and how can teachers use it effectively?

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Tracking Not Watching

Thought Question

Chat It In [2 min]

What are the drawbacks of waiting until your students have completed an independent task to check for understanding?

Watch as this teacher uses **Tracking Not Watching.**

What are the observable actions the teacher is doing during this portion of the lesson?

Video Link:
https://vimeo.com/187645611

Tracking Not Watching | Reflection

Share in Chat [2 min]

- What did the teacher do?
- What did the students do?
- Why is this important?

Watch as this teacher practices the technique of Tracking Not Watching.

- Why do you think tracking is so important to the culture of this primary grade classroom?

Video Link:
https://vimeo.com/266945804

Tracking Not Watching | Reflection

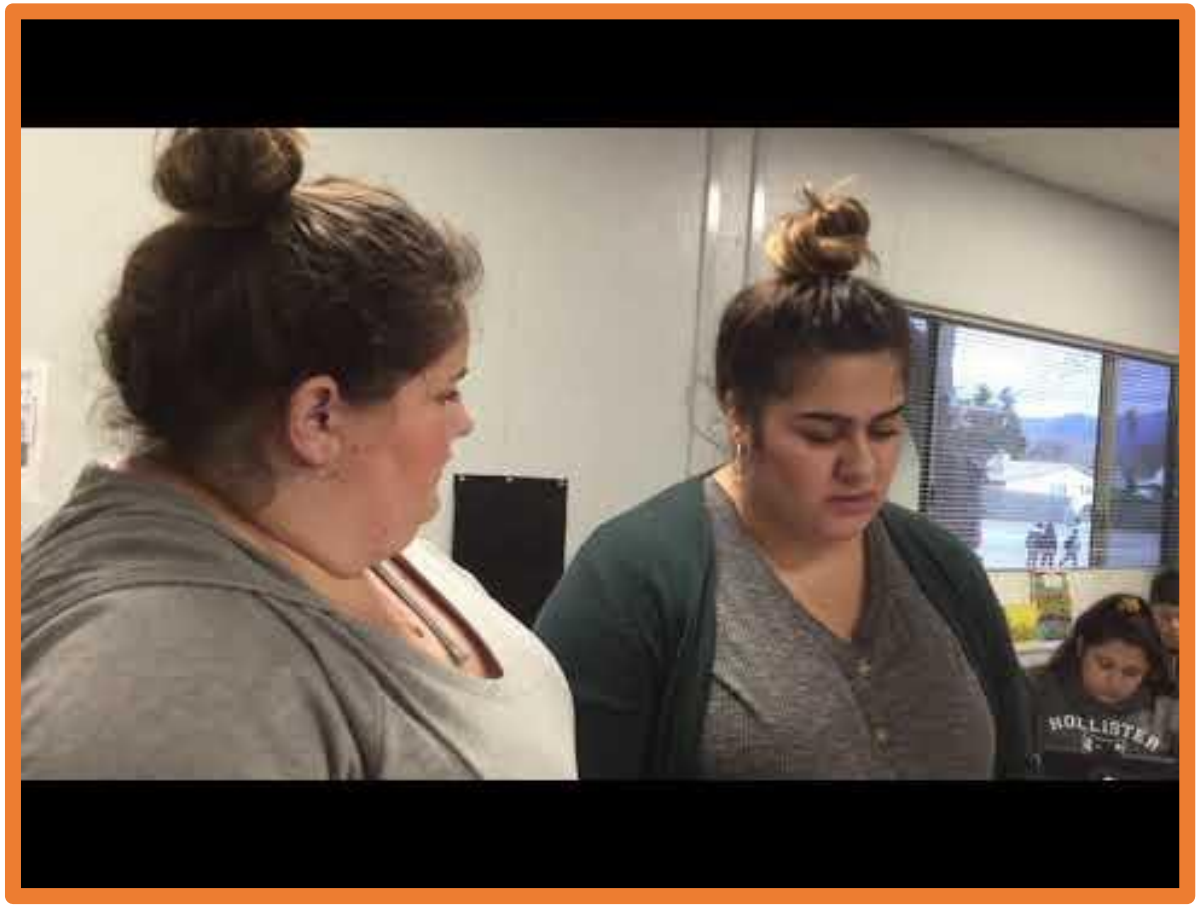
Share in Chat [2 min]

- What did the teacher do?
- What did the students do?
- Why is this important?

Watch as this Navigator teacher and aide both practice the technique of Tracking Not Watching during a check for understanding.

- What were these teachers doing that was so effective?

Video Link:
https://youtu.be/LW_YMhOyZvw



Tracking Not Watching | Reflection

Share in Chat [2 min]

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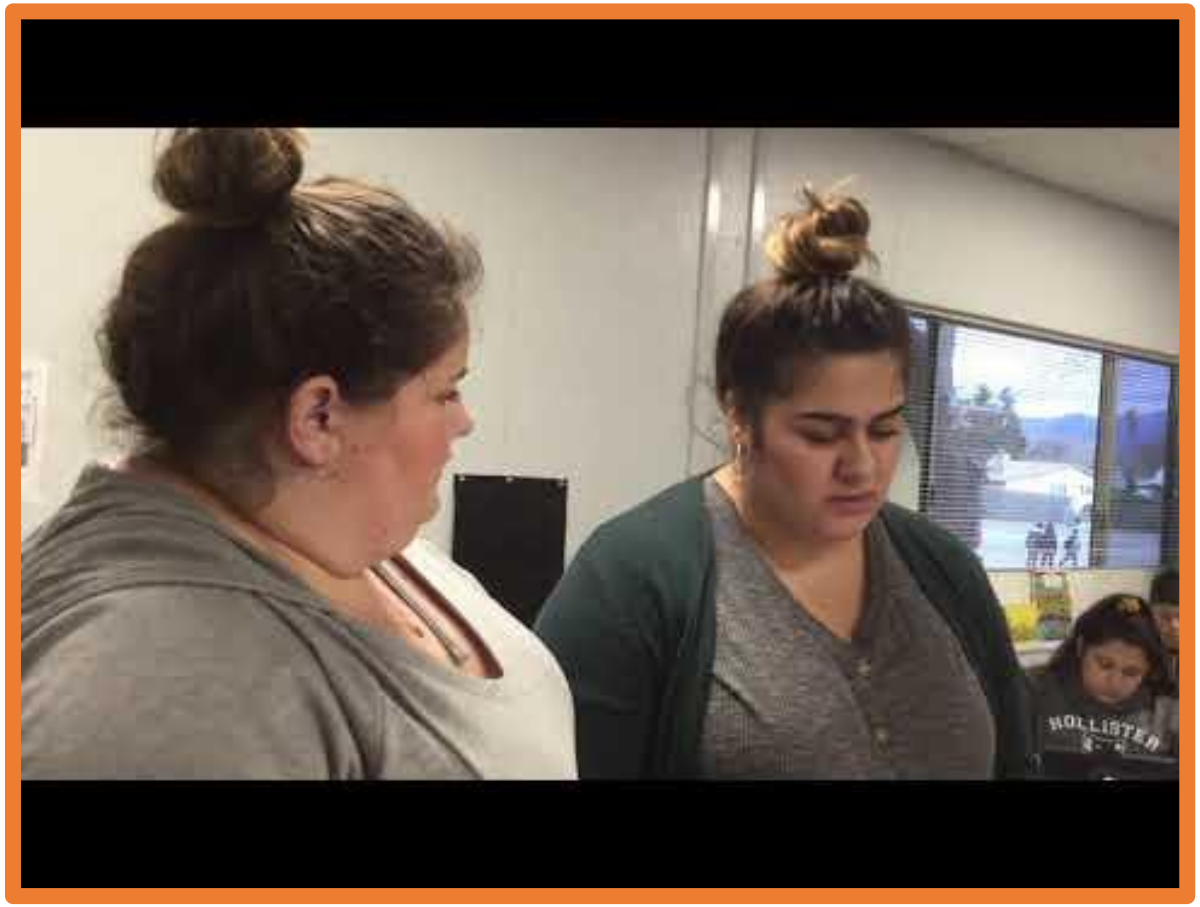

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Core Idea

Tracking not Watching provides the opportunity for teachers to collect data, make in-the-moment decisions about next steps, and hold students accountable for work expectations.

Tracking Not Watching | Name It

What: Teachers will use Tracking Not Watching to collect data, make in-the-moment decisions about next steps, and hold students accountable for work expectations.

How:

1. Create a coding system
2. Create a Tracking Sheet
3. Have an Exemplar in Hand
4. Name the Lap
5. Circulate & Give Feedback
6. Take Data and Use it!

Step 1

Create a coding system - Take 2 minutes to discuss and create a coding system. You could make a code for actions such as:

- Correct - keep going
- Check your work- redo point of error
- Dot Feedback (green, yellow)
- Process Checklist (RACE or CASE)

Step 2

Create a Tracking Sheet

- Make an open-ended template to record data
  - Generic Tracking not Watching Template
  - ELA Tracker
- Printed class roster is effective and accessible

Step 3

Exemplar Student Response In-Hand

- Know what you are looking for
  - Strategies
  - Potential misconceptions
  - Grade-level bar for mastery

Step 4

Name the Lap - Name what you are looking for

- **Procedural** “I am looking for your (heading, RACE/CASE at top page, PV chart, textbook open, note setup, etc.)
- **Content** “I am looking for (an annotated model, thesis statement, citation, topic sentence, number sentence, etc.)

Step 5

Circulate and Give Feedback

- Circulate the room using an intentional flightpath
- Mark student work with coding system
- Give brief and helpful feedback
- Repeat

Step 6

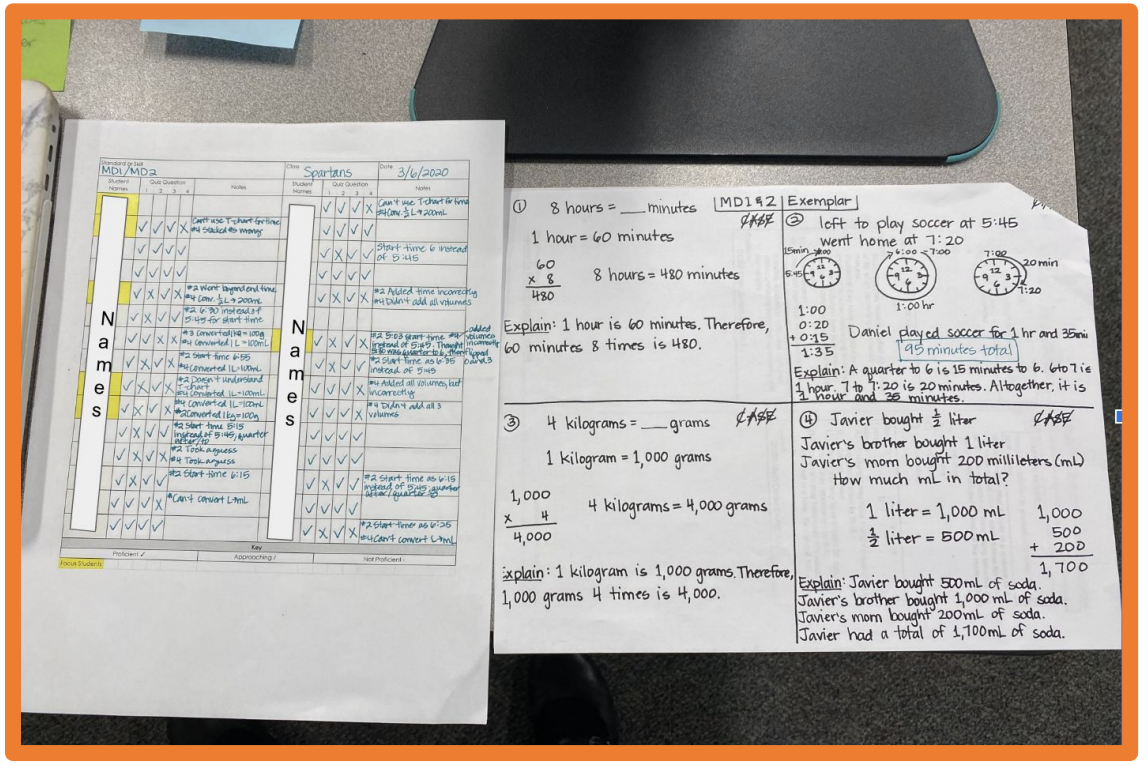
Take Data and Use it!

- Use your tracker to record student data
  - Use data to pivot in the moment
  - Use data to determine reteach or intervention plan

Tracking Not Watching | Reflection

What would be the benefit of Tracking Not Watching during an assessment?

What impact will this strategy have on quality and quantity of feedback to students?



Tracking Not Watching | Review

1. Create a Coding System
2. Create a Tracking Sheet
3. Exemplar Student Response In-Hand
4. Name the Lap
5. Circulate and Give Feedback
6. Take the Data and Use It

Resource | One-Pagers

Navigator Schools Core 3 Threshold	
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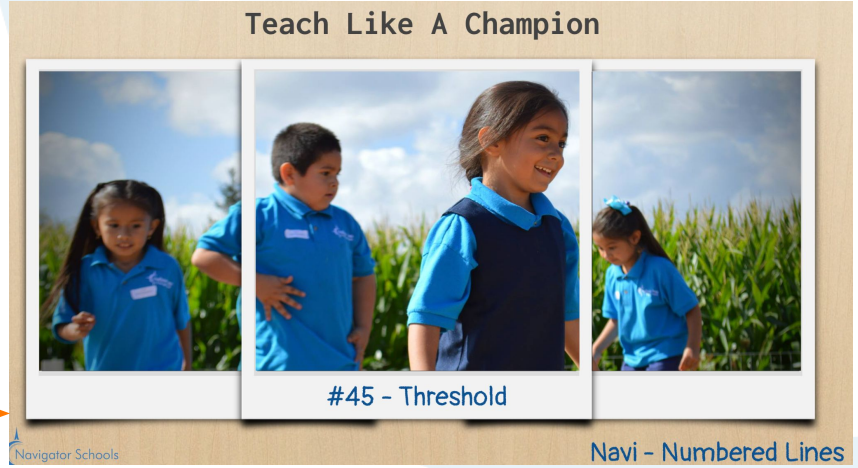

How to Get Started

Step 1 | Visit us! • Learn how we lead PD & coach • Gilroy, CA	**Step 2** | RTAC Grant with CDE • FREE coaching & support through June
Step 3 | Prep Your Summer PD • We have capacity for a few more schools some come see us after	**Step 4** | Yearlong Support • We *may* receive another grant but would be happy to discuss options

Thank You

Need help or a resource we mentioned today?

- Visit **www.navilearning.org**
- Send us an email

  - James Dent – james.dent@navigatorschools.org
  - Justin Steiner – justin.steiner@navigatorschools.org
  - Marlena Lopez - marlena.lopez@navigatorschools.org

Feedback Survey

Please complete the session survey.
Your feedback helps us get better for future sessions.

BPW3 Survey Link: https://forms.gle/227N1Hx9LscghXt76

Thank You!