Empowering Educators: Strategies for Differentiation, Blended Learning, and Student Engagement

November 9, 2023

CALIFORNIA DEPARTMENT OF EDUCATION
Tony Thurmond, State Superintendent of Public Instruction

Welcome and Get to Know You

Chat In Your Responses (2 min)

- Name and position
- Favorite holiday tradition
- Goal you have for the rest of the year

Agenda

- Introductions and Welcome
- Strategy 1: Differentiation in the Classroom
- Strategy 2: Blended Learning
- Strategy 3: Student Data-Driven Goal Setting
- 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.**

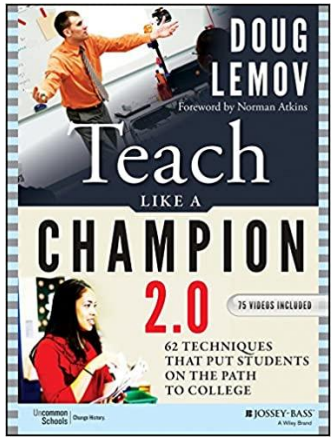
Navigator Schools

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



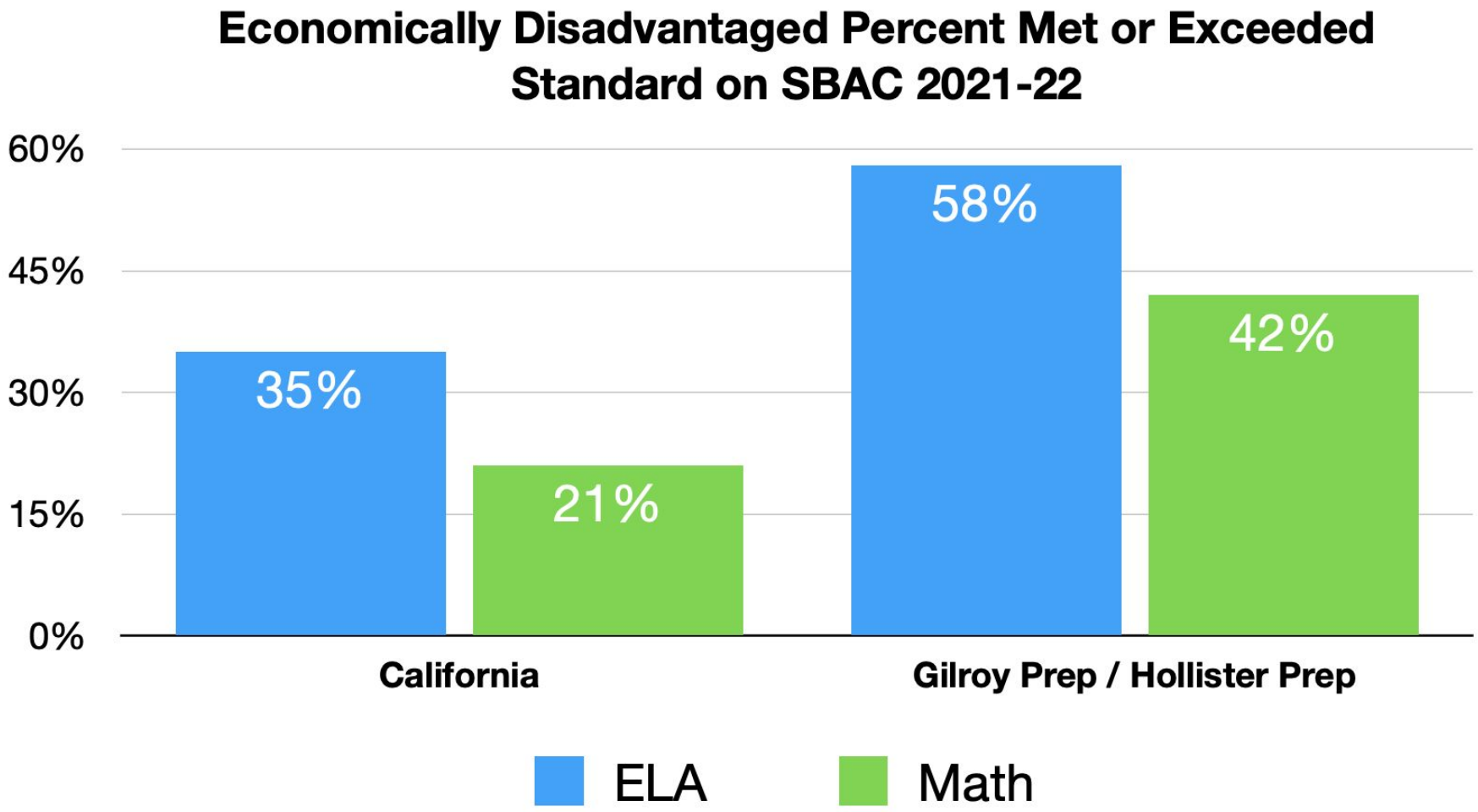
Best Practices Workshop Series

Every Student, Every Lesson Series:

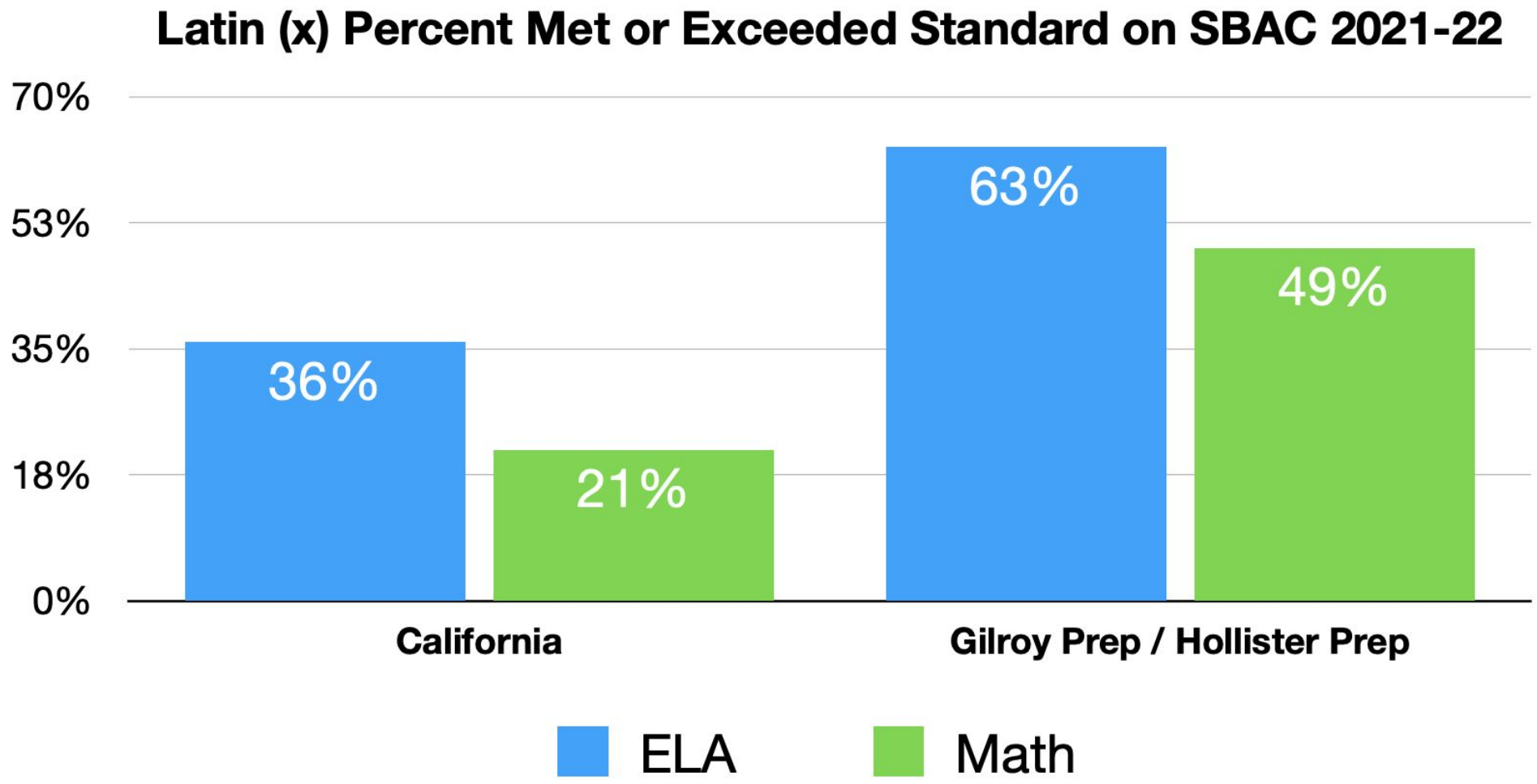
- **Session 1:** Build Culture, Influence Engagement
- **Session 2:** Differentiate Instruction
- **Session 3:** Increase the Rigor

Navigator Core3

Our Results


Economically Disadvantaged Percent Met or Exceeded Standard on SBAC 2021-22
60%
45%
30%
15%
0%
35%
21%
58%
42%
California
Gilroy Prep / Hollister Prep
ELA
Math

Our Results


Latin (x) Percent Met or Exceeded Standard on SBAC 2021-22
70%
53%
35%
18%
0%
36%
21%
63%
49%
California
Gilroy Prep / Hollister Prep
ELA
Math

Agenda

- Introductions and Welcome
- Strategy 1: Differentiation in the Classroom
- Strategy 2: Blended Learning
- Strategy 3: Student Data-Driven Goal Setting
- Thank you and Survey

Session Materials

Link to Participant Handouts:

- BPW2 Participant Handouts

- Google Drive will prompt to make a copy of the handouts

Link to Participant Handouts: shorturl.at/aFUW7

Differentiation in the Classroom

Thought Questions

Share in the chat! (2 min)

- What are the **benefits** of teaching to a small group vs. whole class?
- What are the potential **challenges**?

Rotations at Navigator

- **3 homogenous groups** using STAR Math & Reading Assessment as baseline data (low, mid, high)
- **3 rotations:** teacher, SGI, independent
- All students learn the **same lesson with different supports**, depending on the group.

Build Small Groups | Name It

Advice:	• **Use reliable data source(s)** that are **aligned to SBAC.** • Groups **change,** if the data supports it. • Avoid **changes based on 1-day or 1 unit** (academic, behavior). • Groups should be **about the same size.**
GREEN Group	After whole group model, these students most likely reach mastery of lesson objectives
YELLOW Group	These students will likely reach mastery with guided practice in small groups.
RED Group	Students need support to reach mastery (more at bats, concrete strategies, etc.)

Sample Small Group Schedule

Whole Class	**Warm-Up & Do Now** • Teacher leads.			7 min
	Direct Instruction • Teacher explicitly models concept(s) and skill(s).			20 min
Transition to Small Group Rotation 1.				3 min
	Teacher	**Paraprofessional**	**Independent**	
Rotation 1	**Red** Guided and independent practice, exit ticket.	**Yellow** Spiral Review.	**Green** | Guided and independent practice, exit ticket.	25 min
Transition to Rotation 2.				2 min
Rotation 2	**Yellow** Guided and independent practice, exit ticket.	**Red** Spiral Review.	**Green** | Spiral Review.	25 min

Core Idea

The brain that does the work
is the brain that learns.

In small groups, all students must do the
‘academic lift’.

Differentiation in the Classroom:

C.R.A.

“Concrete, Representational, Abstract”

Activity

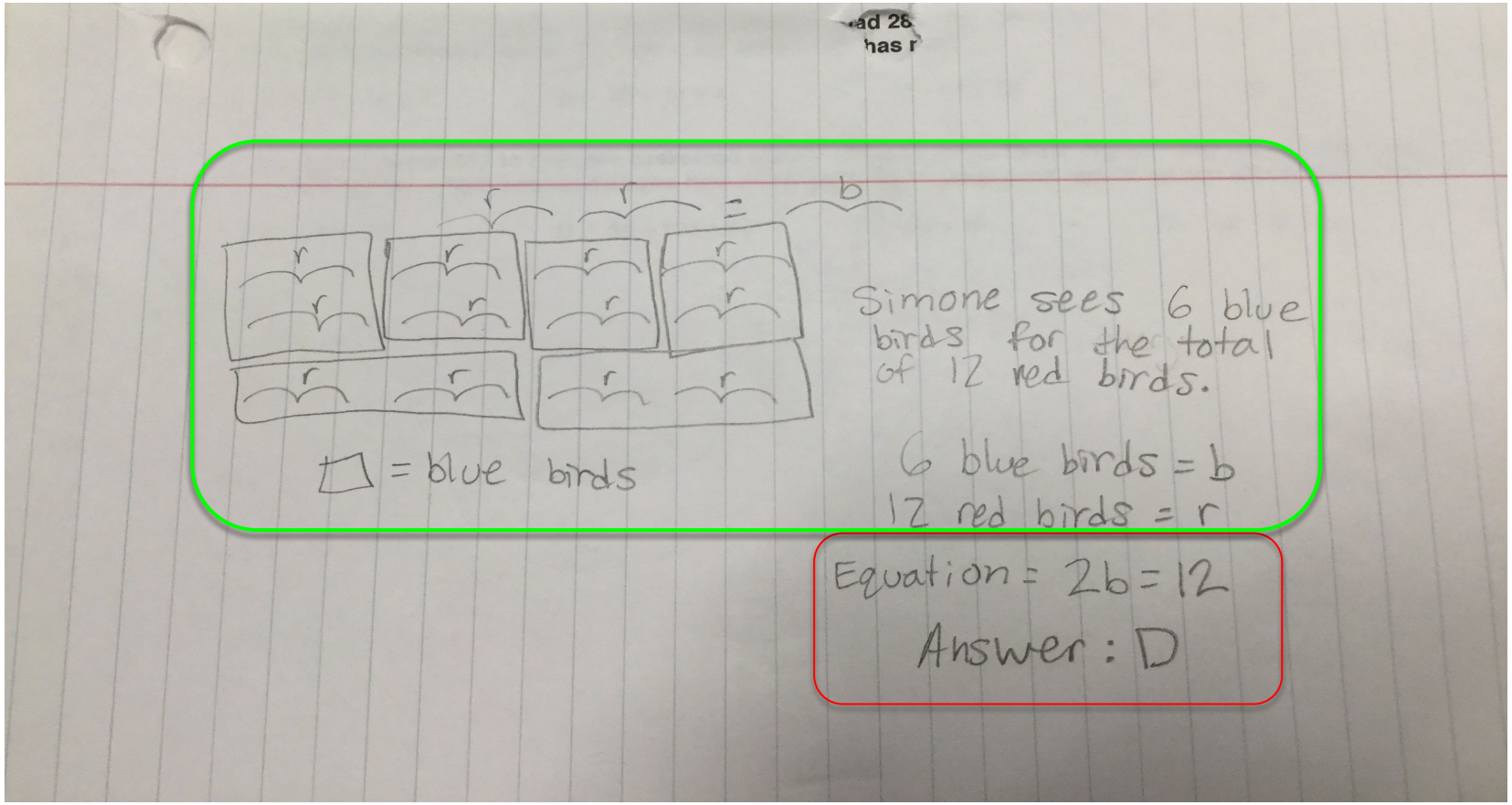
Directions:

1. Complete the following problem on a paper.
2. Begin working as soon as I advance the slide

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

CASE Student Work Sample



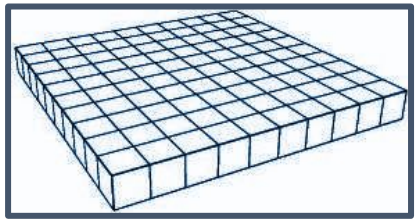
Thought Question

Share in the chat or aloud (2 min)

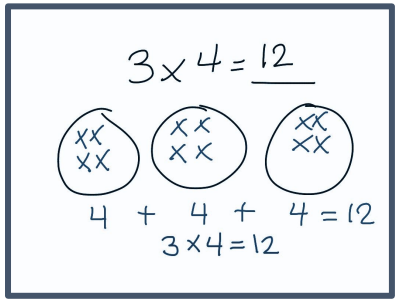
- What process did you go through to decode this problem?
- What worked well?
- Were there any misconceptions? Why?

Academic Vocabulary

Concrete: Hands on models/ manipulatives



Representational: pictorial representations of mathematics problems



Abstract: mathematics problems with numbers and symbols

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

Watch this video that describes CRA

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.

Differentiation in the Classroom:

C.A.S.E.

CASE Student Model

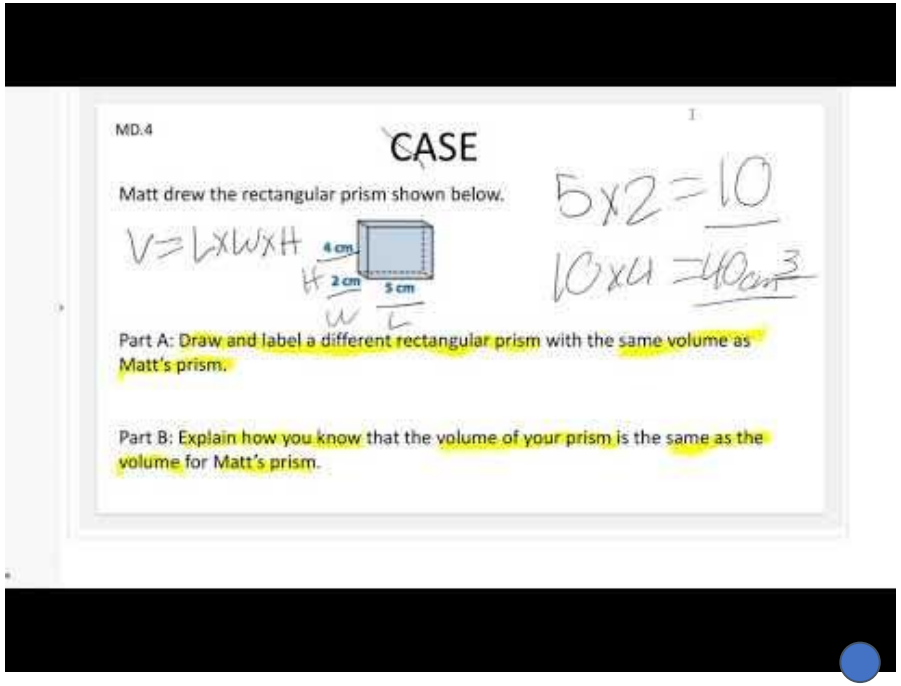
Watch at this 5th grade student models

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

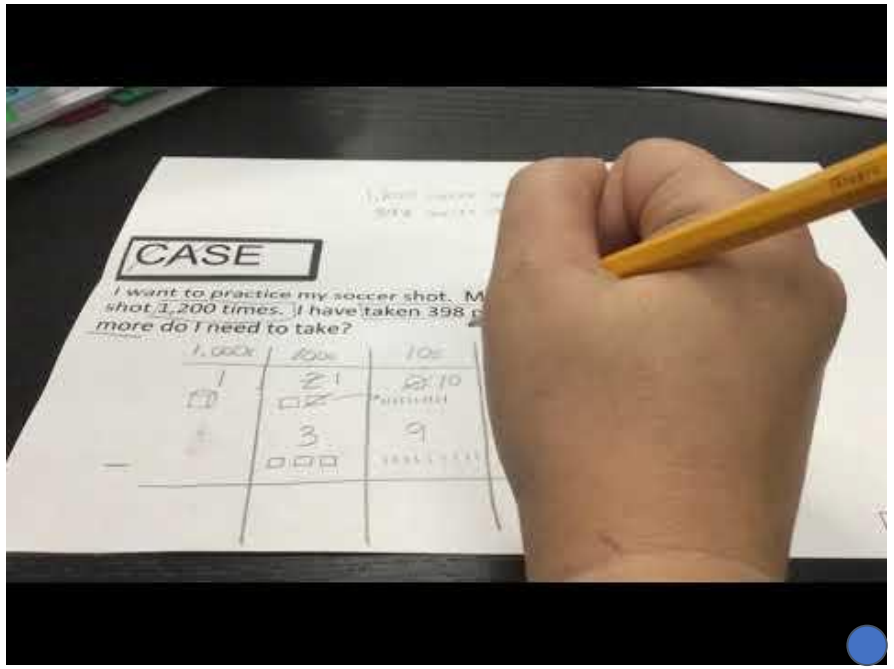


CASE Teacher Prep

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



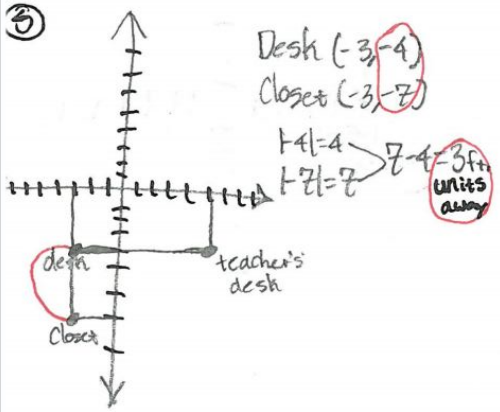
NS6.6 Math Quiz NS 8

Angela
11-9-18
Yale Math

CASE

Chunk 1 Grid represents layout of Valerie's math classroom. Each unit on grid represents 1 square foot.

Chunk 2 Enter distance, in feet, from Valerie's desk to storage closet.



Desk (-3, -4)
Closet (-3, -7)

|-4| = 4
|-7| = 7
7 - 4 = 3 ft. units away

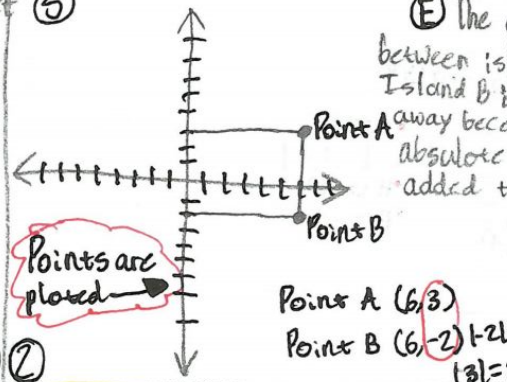
(E) The distance, in feet from Valerie's desk to the storage closet is 3 ft. of distance away because the absolute value of 7 and 4 are being subtracted to get 3 ft.

CASE

Chunk 1

Chunk 2 Graph island A, (6, 3) and island B, (6, -2).

Chunk 3 ? What is distance between Island A and Island B?



(E) The distance between island A and Island B is 5 units away because the absolute value of 3 and 2 are being added to get 5 units.

Point A (6, 3)
Point B (6, -2)
|-2| = 2
|3| = 3
3 + 2 = 5 units away

Doesn't let me plot my points on ipad.

CASE

Chunk 1 Mark and Kathy competing in race to finish located at Point F on coordinate plane.

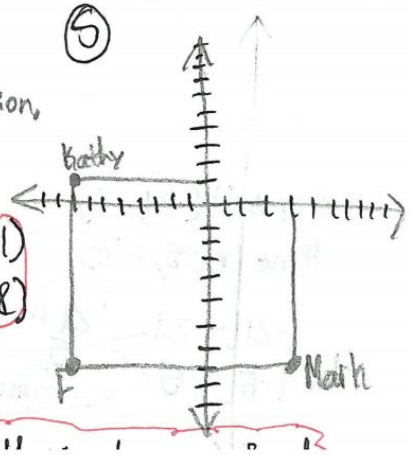
Chunk 2 Mark located (4, -8) and Kathy located (-8, 1)

Chunk 3 Explain who is closer to finish. Use absolute value in explanation.

See ipad for (E)

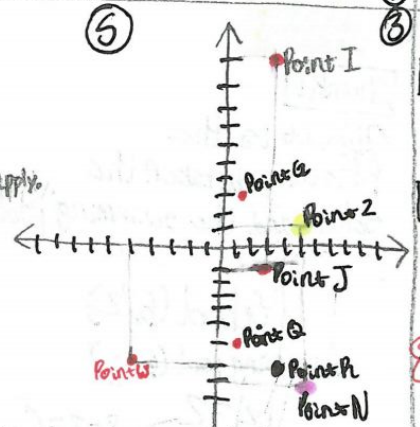
Mark (4, -8)
Point F (-8, -8)
|4| = 4
|-8| = 8
12

Kathy (-8, 1)
Point F (-8, -8)
|-8| = 8
|1| = 1
9



CASE

Chunk 1 Which of the following pairs of points has a distance of 9 units between them? Select three that apply.



C Point I (3, 10)
Point J (3, 1)
|10| = 10
|1| = 1
10 + 1 = 11 ≠ 9

D Point G (4, 3)
Point Q (4, -6)
|3| = 3
|-6| = 6
6 + 3 = 9

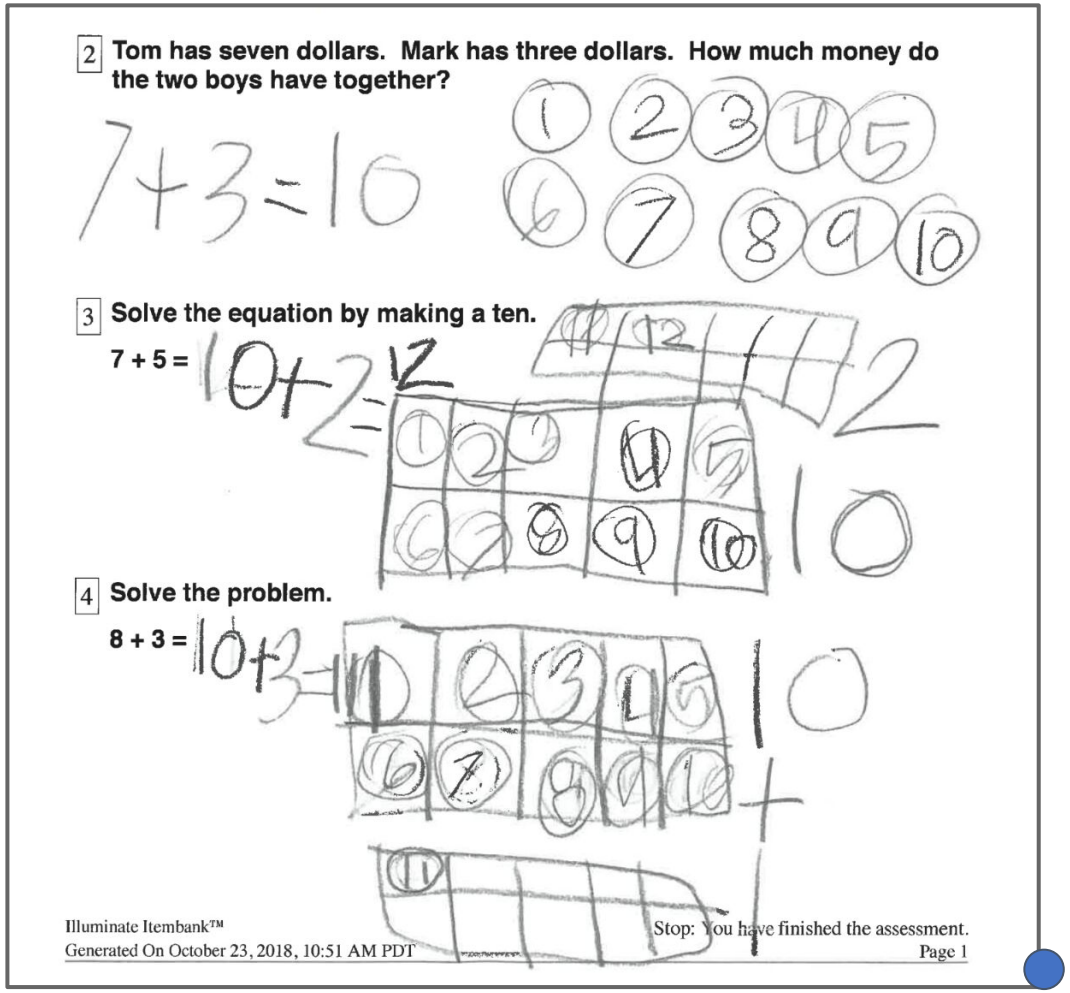
A Point R (4, -7)
Point W (-5, -7)
|4| = 4
|-5| = 5
5 + 4 = 9

B Point N (5, 8)
Point 2 (5, 1)
|-8| = 8
|1| = 1
8 + 1 = 9

CASE | See It

K-2 Student Work Sample

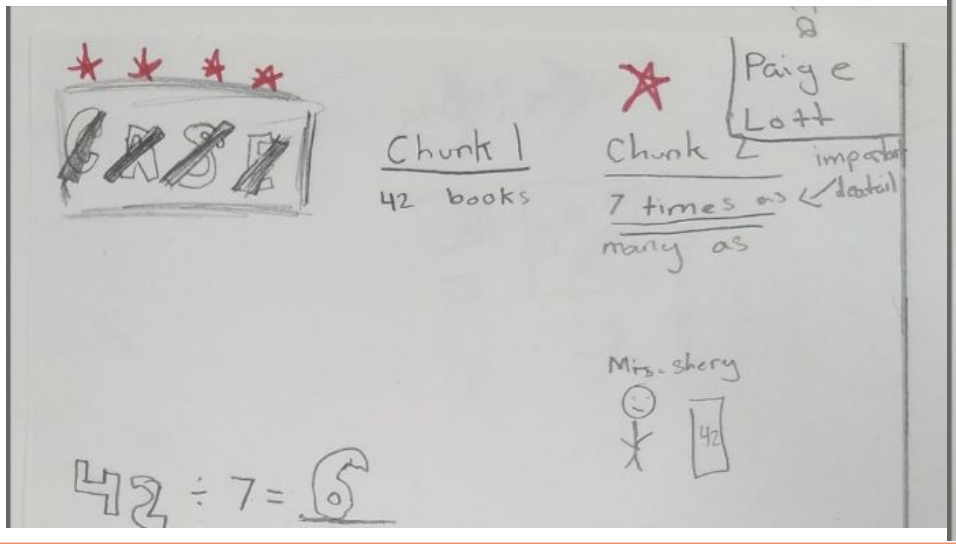
- Where do you see students modeling their thinking in the example?

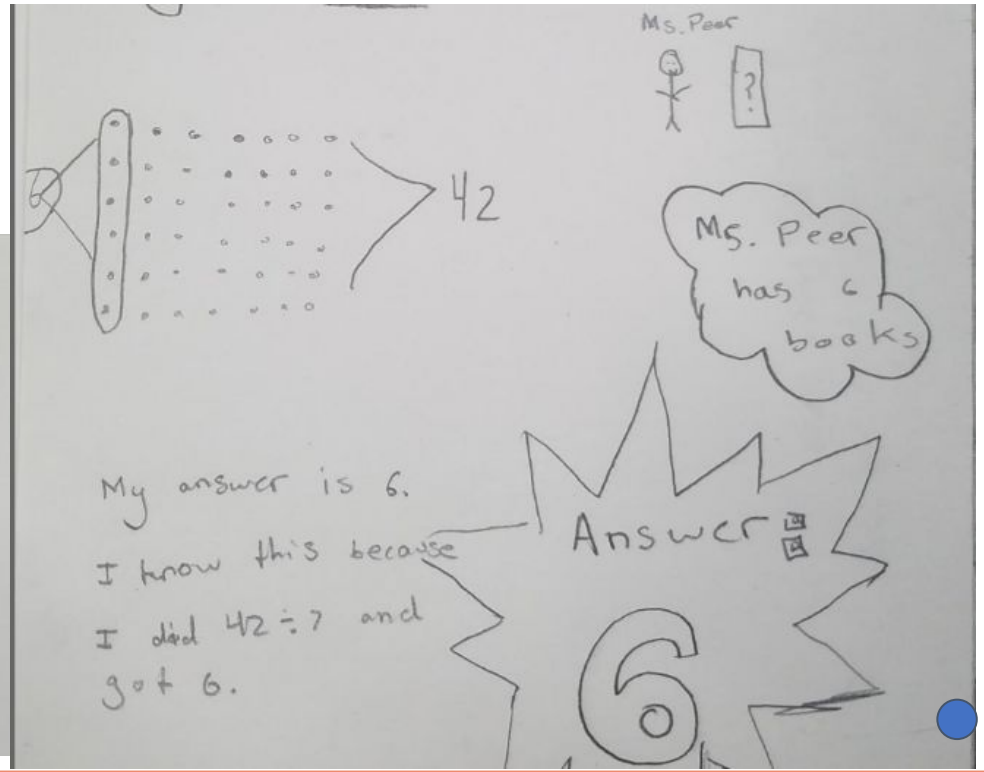


CASE | See It

3-5 Student Work Sample

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





CASE | Name It

The CASE process 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 gap!

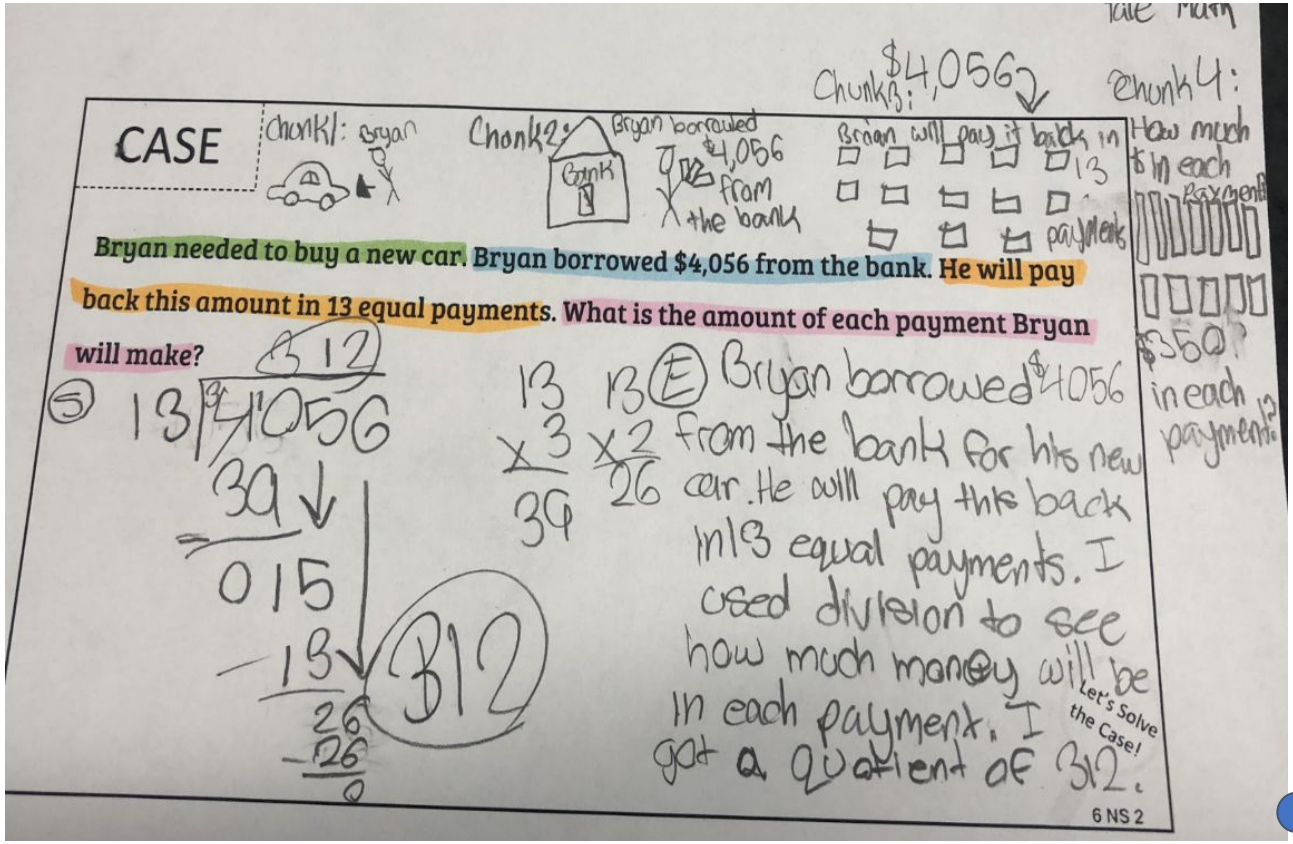
CASE | Name It

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

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

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 [3 min]

- **How often** should students use CASE?
- If students use a process like CASE to tackle math, what are some **lesson pacing challenges** that may arise?
- How can you mitigate those challenges?

CASE | Do It

Directions

- On a paper, spend **5 minutes** independently solving Problem #1 using CASE
- **Cross off** each letter of CASE as you complete the step
- **Compare** with your tablemates & **discuss** where you could have expanded/improved.

C - Chunk important information

A - Annotate a model

S - Solve

E - Explain

CASE | K-2

Tim has 10 fish. He bought 3 more. How many fish does he have altogether?

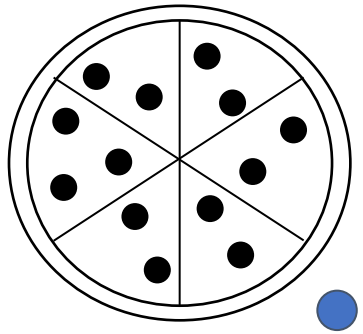
CASE | 3-5

Sarah designed a rectangular board to play a new game. She segmented the board into 8 equal parts and shaded in 4 parts blue.

Write an expression represents the total amount of the board she shaded in?

CASE | 3-5

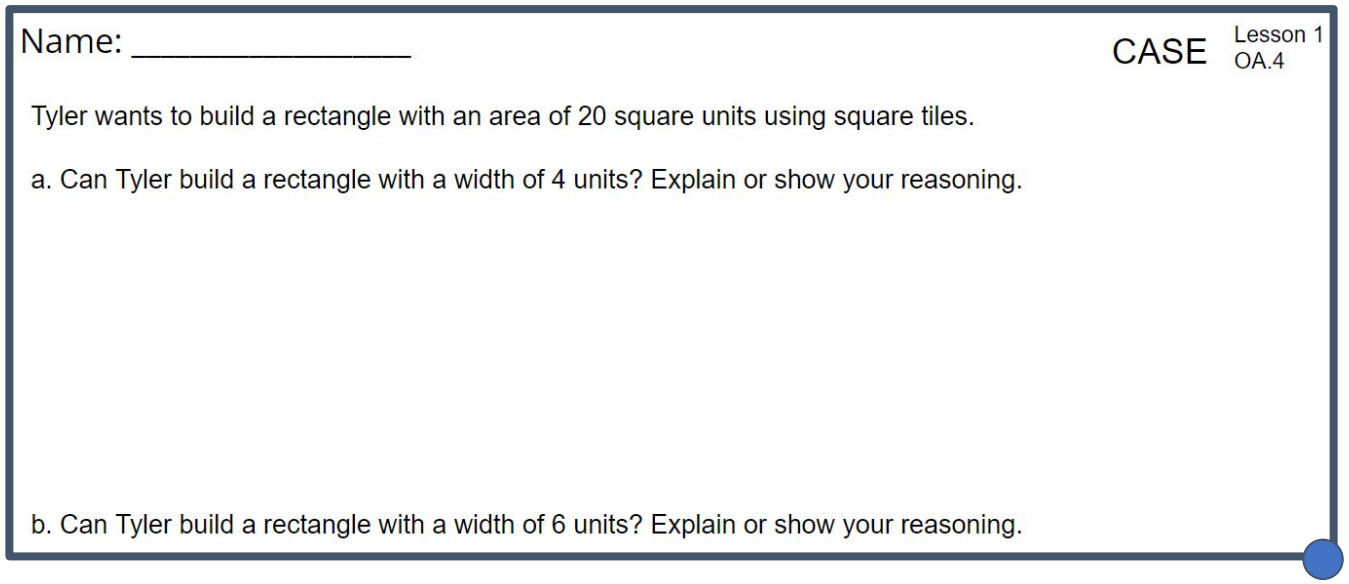
Ms. Keshmiri ate 1 slice of the pizza shown. Ms. Nancy ate 2 slices of the same pizza. How much more pizza did Ms. Nancy eat than Ms. Keshmiri?



CASE | Do It

Small Group Lesson Materials

- **Practice Problems** from curriculum and/or released SBAC items
- 2-3 items per day
- Students respond in CASE


Name: _____

CASE Lesson 1 OA.4

Tyler wants to build a rectangle with an area of 20 square units using square tiles.

a. Can Tyler build a rectangle with a width of 4 units? Explain or show your reasoning.

b. Can Tyler build a rectangle with a width of 6 units? Explain or show your reasoning.

CASE Reflection

Individual Reflection [2 min]

- How would you explain the importance of **CASE** to someone?
- Why is your role so important for students learning math?
- Are there questions you have about your role?

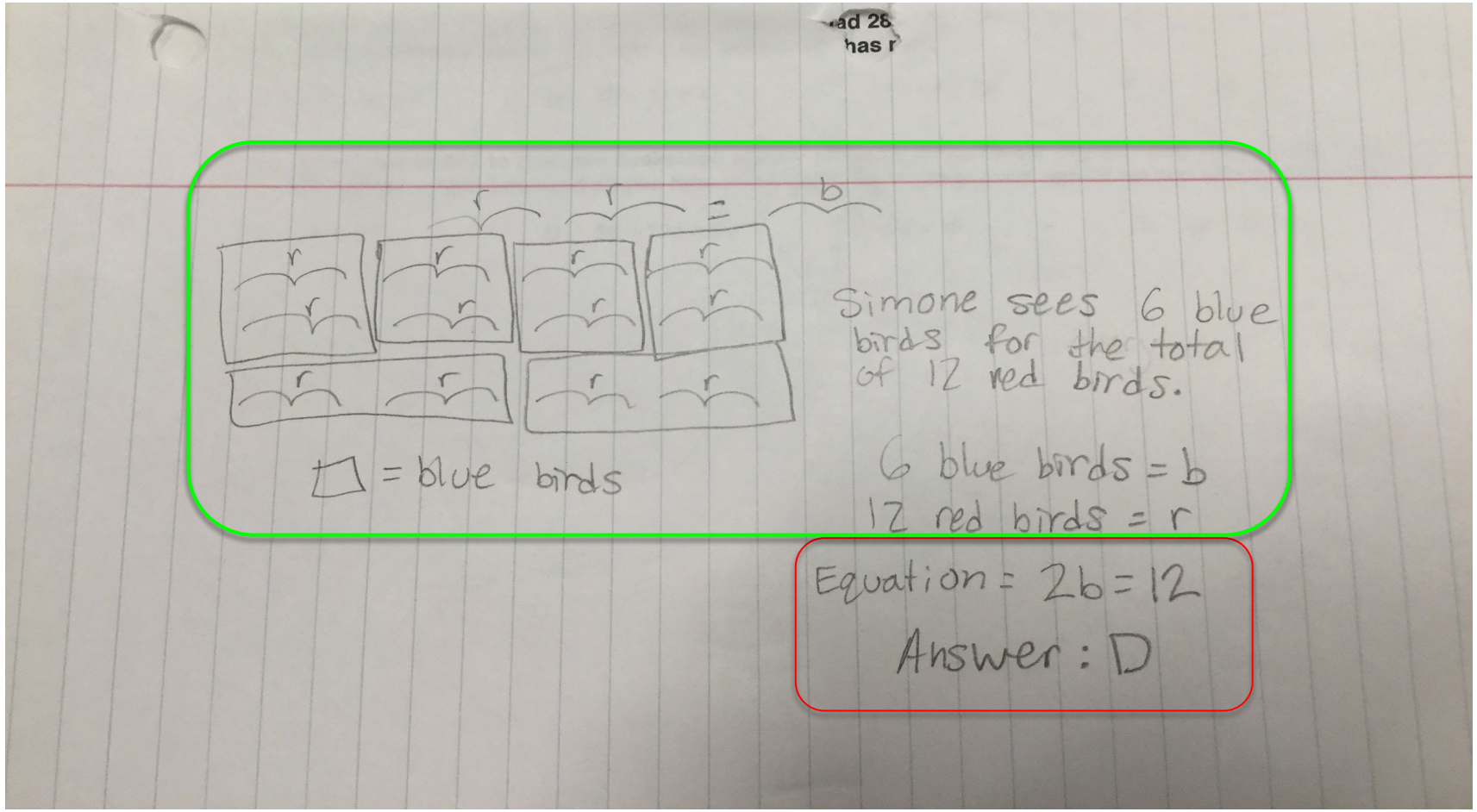
CASE Practice Problem

Solve the problem below. Include all steps of CASE that you would expect students to show.

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?

- b/2 = r
- b = 24
- r*b = 12
- 2b = 12

CASE Problem Exemplar



Core Idea

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

Differentiation in the Classroom:

R.A.C.E.

RACE: Resources & Materials

- The Three Little Pigs (for RACE practice)
- RACE One Pager
- RACE Continuum

All resources / materials are linked in your Participant Handout

Link to Resource Folder: shorturl.at/vyW29

See It: RACE

Restate
Answer all parts
Cite Evidence
Explain

See It: Defense through RACE

Which event is *most* important to the story's plot?

R= Restate
A= Answer all parts
C= Cite evidence
E= Explain

(R) The most important event in the story's plot is (A)when the mom picked up the penny on the ground. When the daughter realizes that she should have picked up the penny she saw earlier, the mom says, (C) "Is this the one you are looking for?" (E) The plot is able to reach a happy resolution only because the mom had picked up the penny and uses it to pay for the necklace. Without that penny, the story would have ended very differently.

Observe a RACE Discussion

As you watch this video:

How does this teacher hold her students accountable to RACE during a discussion?

Video Link:
https://www.youtube.com/watch?v=cfCsyewCc8k

See It: RACE

As you watch this video:

What is the importance of teaching and holding students accountable to RACE in all grade levels?

Video Link:
https://www.youtube.com/watch?v=SELxd-z-s3E

RACE Action Step

What: Students will use RACE to demonstrate, defend and debate their understanding at all possible and reasonable opportunities.

How:

1. Explicitly teach RACE (with an anchor chart).
2. Ensure students use RACE in written responses when checking for understanding.
3. Ensure students use RACE in verbal responses.
4. Design gestures for prompting.

Do It: Practice RACE

Take 5 minutes to read **The Three Little Pigs** from Reading A-Z.

Link to the Text: shorturl.at/pxRZ3

Do It: Practice RACE

Planning

- Script an Exemplar Response for One of the Questions:
  - Why do you think the wolf blew the first pig's house down?
  - Why did the pigs call an ambulance?
  - On page 7, using context clues, what do you think the word **puffed** means?

RACE

Restate
Answer all parts
Cite Evidence
Explain

Do It: Practice RACE

Practice in Groups of 3 (Break Out Room)

- Select a **teacher**, **student**, & **coach**
- Teacher will ask the question they prepared.
- Students answer orally in full RACE.
- Teacher prompts for any missing RACE components.
- Coach gives a ‘glow’ and a ‘grow’ to the teacher (30 sec)
- Teacher ‘Do It Again’ incorporating feedback (45 sec)

Reflection

How did that feel when you were the teacher?

How did that feel when you were students?

Reflection

2 minutes to write

2 minutes to share in breakout rooms

How will RACE support students in being successful?

What might be your next steps to use RACE at your school?

Agenda

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- Strategy 1: Differentiation in the Classroom
- Strategy 2: Blended Learning
- Strategy 3: Student Data-Driven Goal Setting
- Thank you and Survey

Creating the Conditions to utilize Blended Learning

Blended Learning:

Radar

Thought Questions

What are some of the students doing during the lesson?

What is the teacher doing?

Video Link:

https://www.youtube.com/watch?v=DVyaCV7nO8E

Radar | See It

Watch as Navigator teachers practice **Radar.**

- What is the **teacher** doing?
- What are the **students** doing?
- Why do you think **radar** would be important for engagement?

Video Link:
https://www.youtube.com/watch?v=kkZHKIi08o4

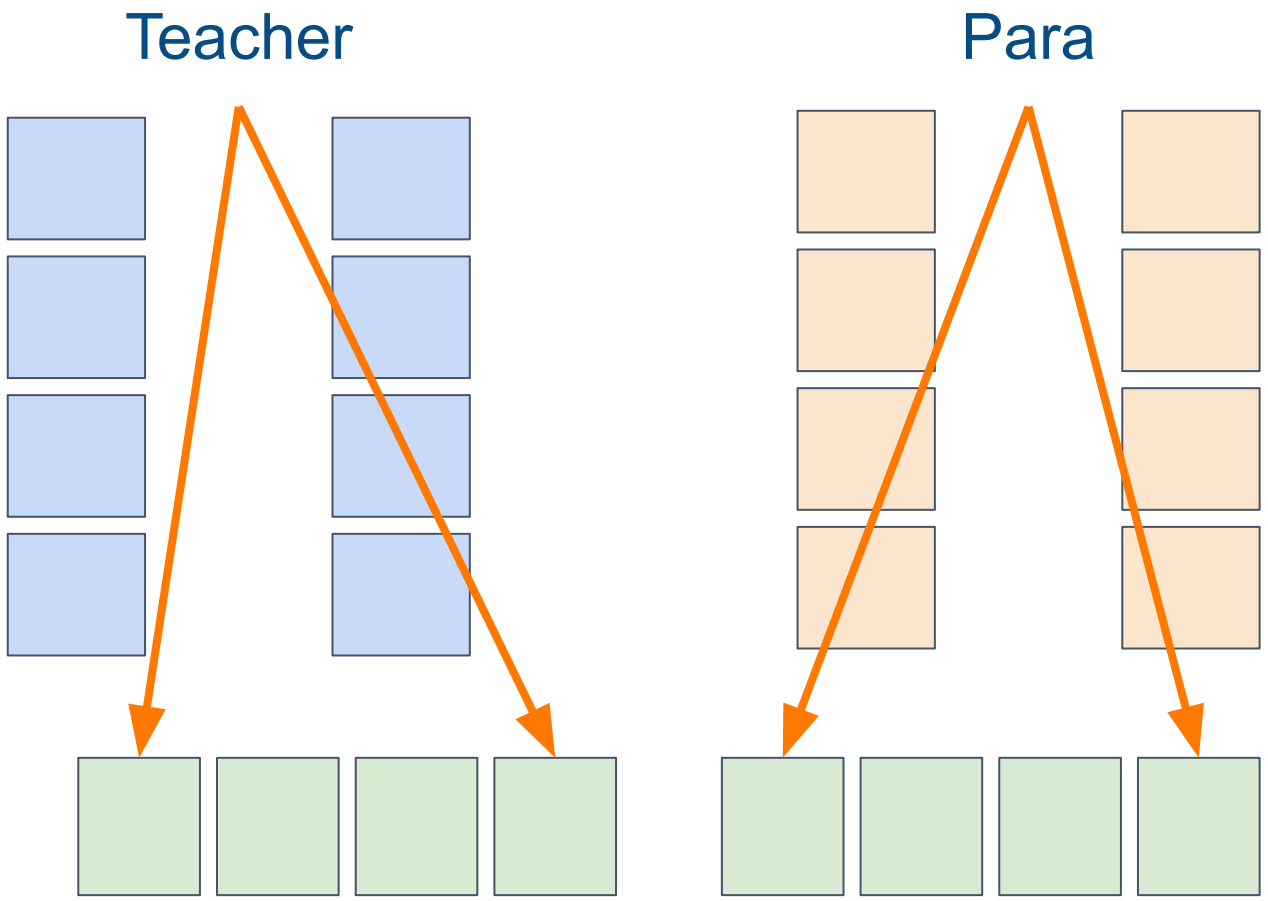
Radar | Name It

Radar is the ability to see what happens in your classroom; **Be Seen Looking** is your ability to let students know you see what happens. When you see events in the classroom accurately and students know that you do, off task behaviors disappear.

Radar | Name It

1. **Reposition Your Antennae** | position yourself to get a better vantage point to check whether students follow directions in your independent station
    - *You may have to reposition furniture*
    - *‘Walk your room’*

Radar | Example Set-Up



Reflection Question:

What changes need to be made to your room set-up to give you **Radar** on all students?

Blended Learning:

Materials Management

Materials Management | See It

As you watch the Navigator teachers…

- How do the teachers get students into learning right away?
- What are the expectations for students (voice, movement, etc)?

Video Link: tinyurl.com/2p824ph3

Materials Management | See It

Share your responses in the chat

- Why is this type of efficiency beneficial for students?
- What are some things you do, or can do to ensure students have what they need as soon as they sit down?

Video Link: tinyurl.com/2p824ph3

Core Idea

Efficient materials management ensures that instructional minutes are maximized.

Materials Management | Name It

What: Materials Management maintains an efficient and consistent classrooms that maximize instructional time.

How:

- **Script your routines:** Pre-plan when students need a given material and script what the **teacher will do/say** to prompt students for materials
- **Student helpers** to help with tasks
- **Work the Clock countdown** when taking out/putting away materials
- **Precise Praise** to reinforce materials expectations
- **Do It Again** until the materials routine is at 100%

Materials Management | Do It

Script on how you will teach your students your procedure of transition from whole group to rotations.

Include:

- How will you ensure your students are ready to learn in 1 minute or less?
- What materials management will be needed to make that happen?
- What will you say to students to motivate them to be faster?

Blended Learning:

Utilizing Data to make Decisions

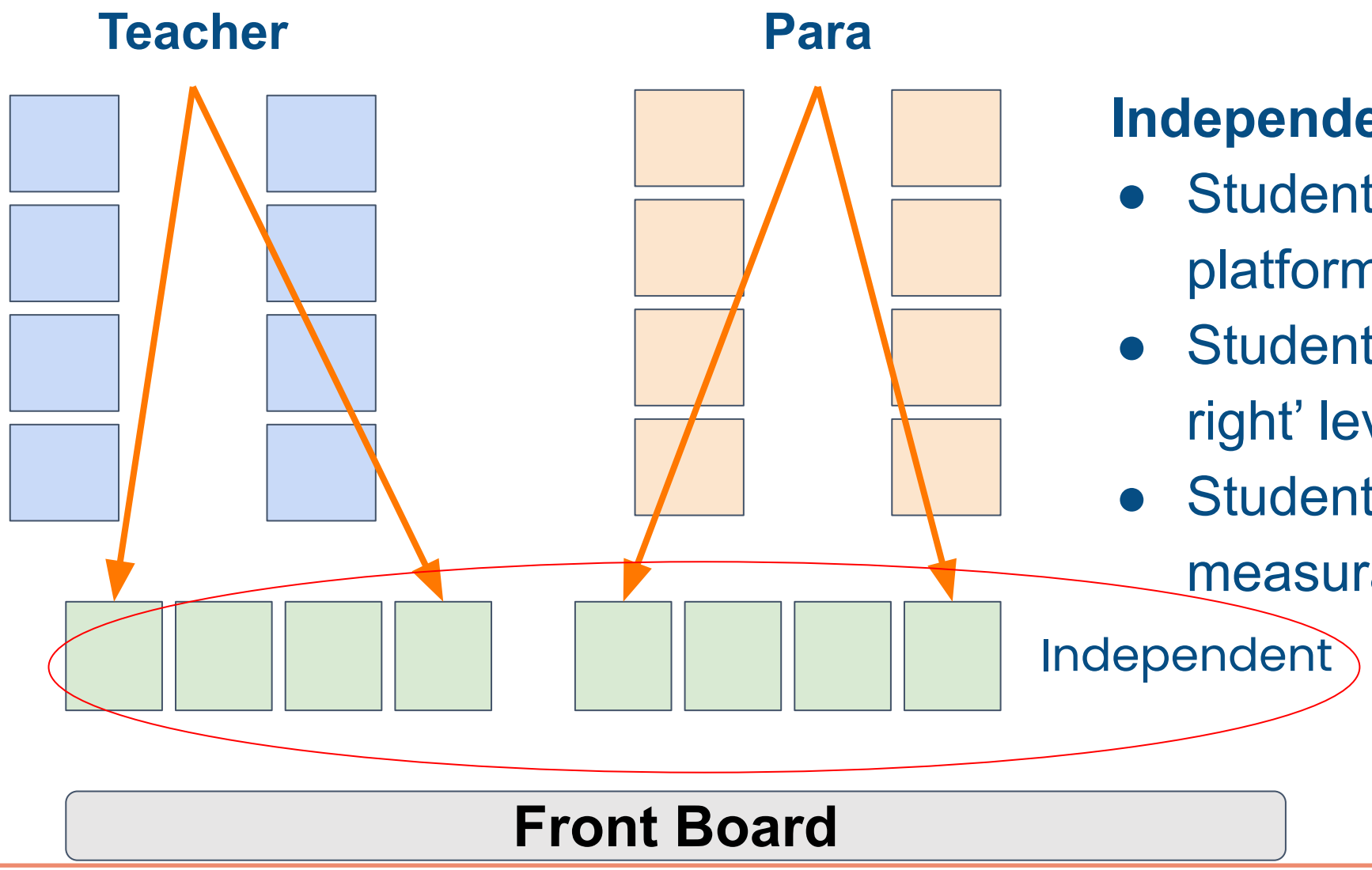
Baseline Data

SBAC, baseline testing data

Teacher Observation

Placement Data on Learning Platform

Independent Group

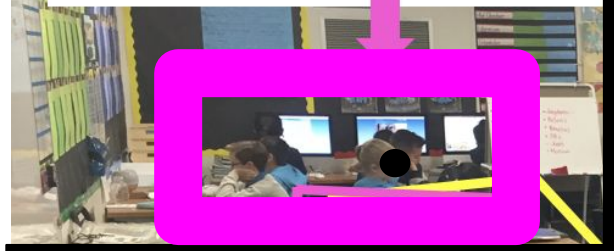


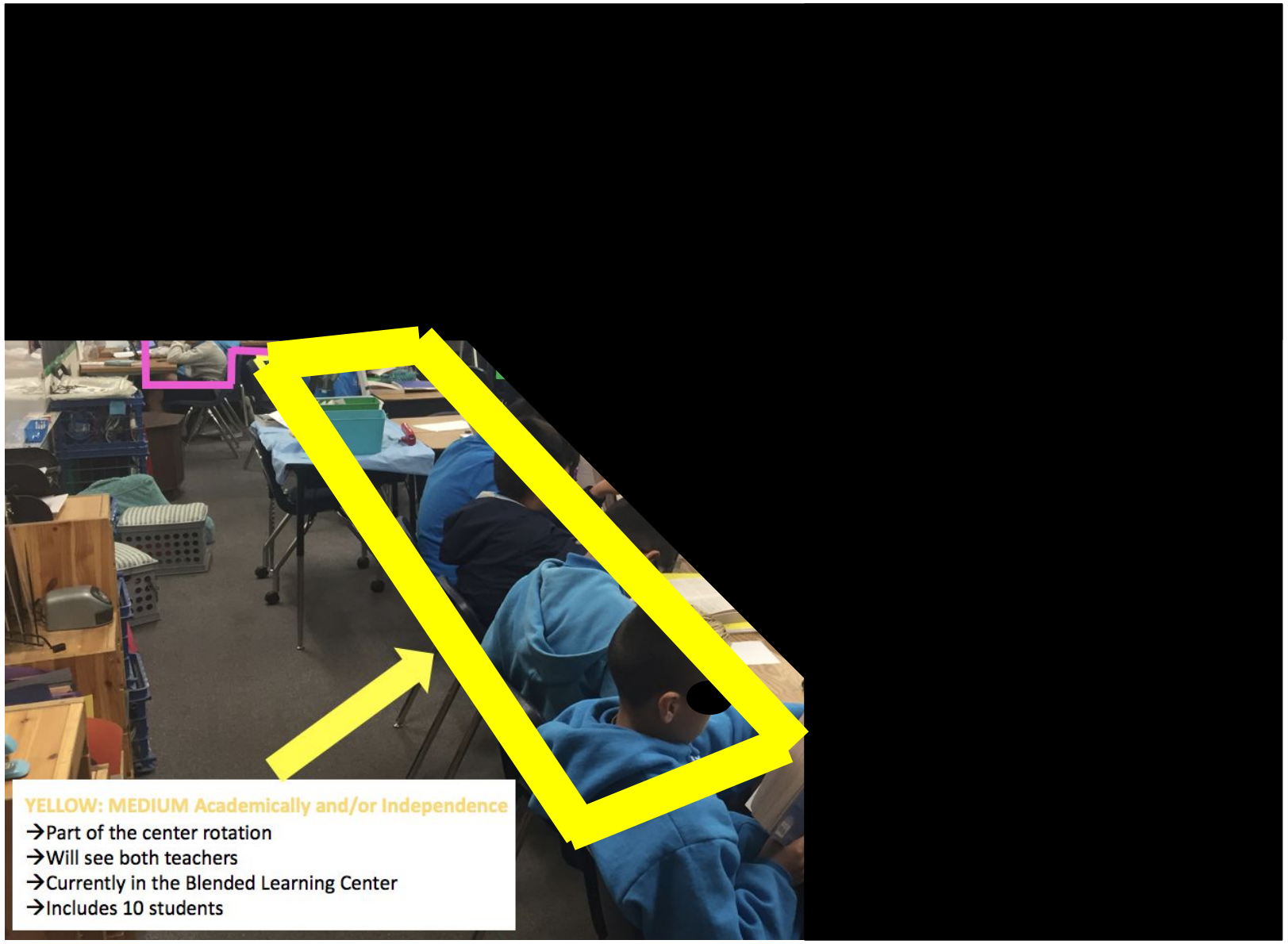
Independent Group

- Students use learning platforms.
- Students are on the ‘just right’ level in platform.
- Students are accountable to measurable outcomes.

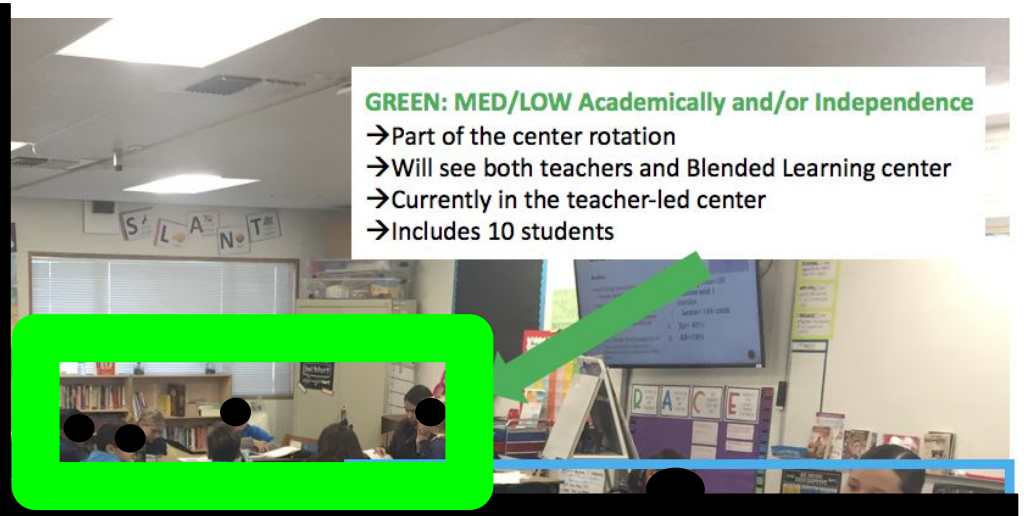
PINK: HIGH Academically and/or Independence

→NOT part of the center rotation
→Completely independent from either teacher
→Works on a student playlist set up by teacher
→Includes 5 students
→Meets with teacher 1-2 times a week at an alternate time




YELLOW: MEDIUM Academically and/or Independence
→Part of the center rotation
→Will see both teachers
→Currently in the Blended Learning Center
→Includes 10 students

[redacted]



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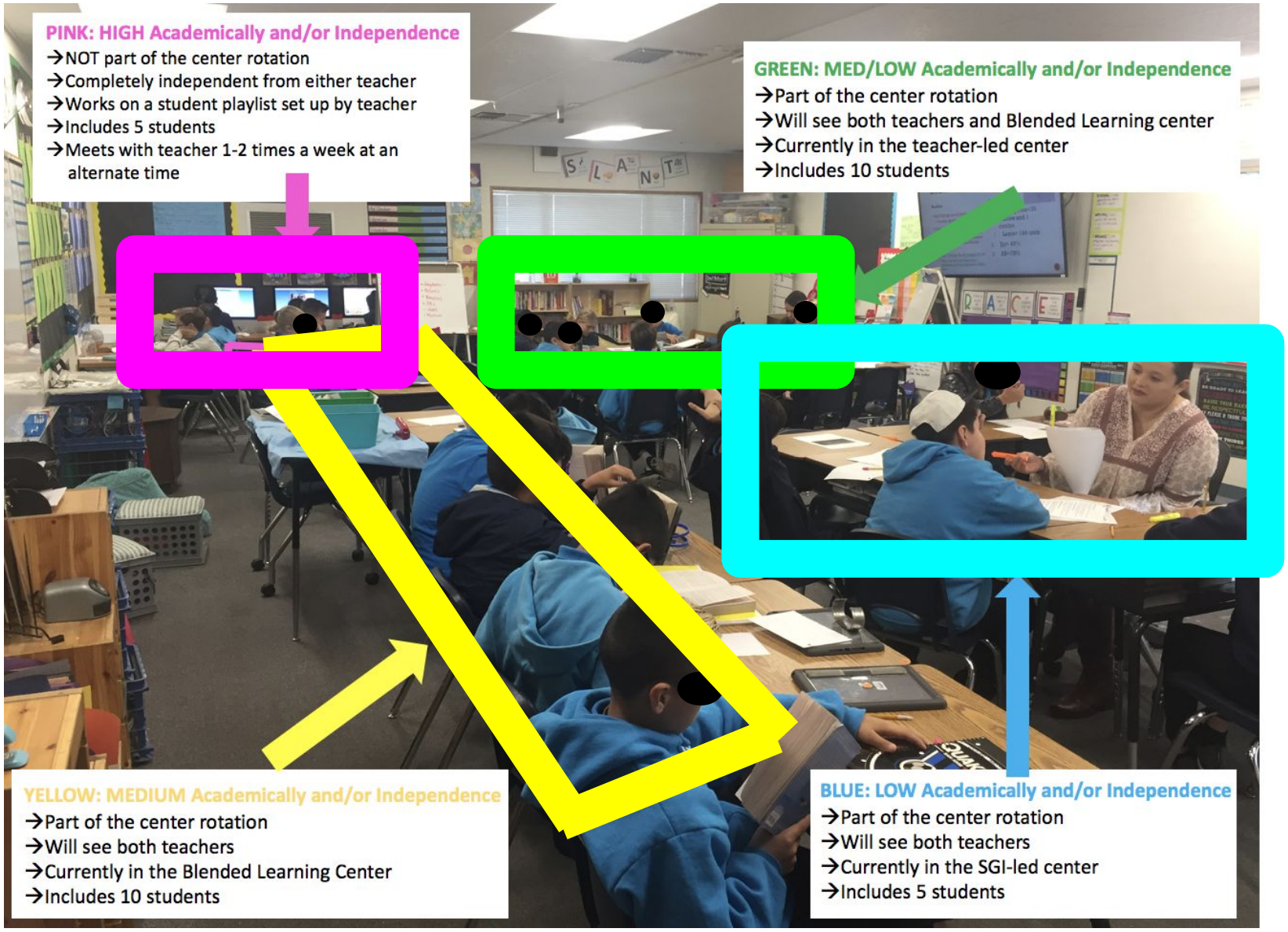

PINK: HIGH Academically and/or Independence
→NOT part of the center rotation
→Completely independent from either teacher
→Works on a student playlist set up by teacher
→Includes 5 students
→Meets with teacher 1-2 times a week at an alternate time
GREEN: MED/LOW Academically and/or Independence
→Part of the center rotation
→Will see both teachers and Blended Learning center
→Currently in the teacher-led center
→Includes 10 students
YELLOW: MEDIUM Academically and/or Independence
→Part of the center rotation
→Will see both teachers
→Currently in the Blended Learning Center
→Includes 10 students
BLUE: LOW Academically and/or Independence
→Part of the center rotation
→Will see both teachers
→Currently in the SGI-led center
→Includes 5 students

Core Idea

Up to 15% of school day on adaptive software programs - make it a good use of students' time, increase At Bats with skills.

Agenda

- Introductions and Welcome
- Strategy 1: Differentiation in the Classroom
- Strategy 2: Blended Learning
- Strategy 3: Student Data-Driven Goal Setting
- Thank you and Survey

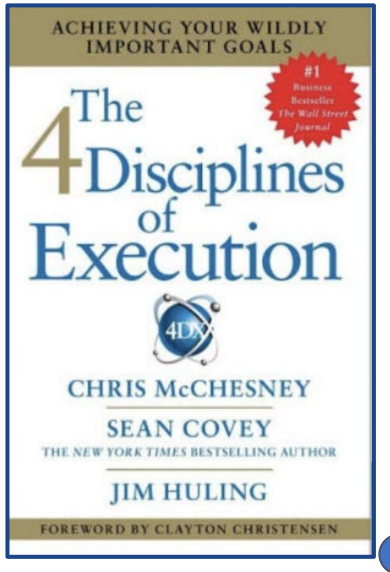
4 Disciplines of Execution

Discipline 1: Focus on the Wildly Important

Discipline 2: Act on Lead Measures

Discipline 3: Keep a Compelling Scoreboard

Discipline 4: Create a Cadence of Accountability



Student Data-Driven Goal:

Setting Daily Outcome Goals

Lead Measures

Lead vs. Lag Measures

Lag measures

Autopsy

sbac, end of unit/year tests, grades

(WIG "Wildly Important Goals")

Lead measures

Surgery

walkthrough observations, CFU data, unit assessment data

Lead vs. Lag Measures

LAG MEASURE	LEAD MEASURE
Measures Output	Measures input
Easy to measure	Hard to measure
After the fact	Predictive: “Having the effect of producing a result.”
Cannot be influenced because it is in the past	Influenceable: “Capable of being influenced or controlled.”

Core Idea

Conventional Thinking	4DX Thinking
Keep your eye on the lag-measures, the end-of-the-year results, the graduation rate, the summative assessment, etc.	Focus on moving the lead measures. These are the high leverage actions you take to get the lag measures to move.

Activity

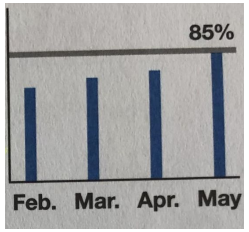
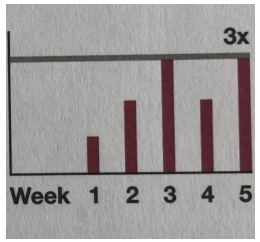
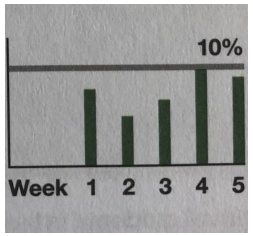
Chat It In

- Brainstorm a list of potential candidate lead measures on a scratch paper.
- Select one to two lead measures to share in the chat.

Student Data-Driven Goal:

Individual tracking systems

Scoreboard Terms

Measure	Description	Graphic
WIG (Wildly Important Goals) **LAG MEASURE**	**Increase number of students proficient from 75% to 85% by May 30th.**	
LEAD MEASURE (Behavior Based)	**Meet with intervention group 3 times/week**	
LEAD MEASURE (Project Based)	**Increase formative assessment scores by 10% each week**	

Scoreboard Setup

Keys to Success

1. Scoreboards must be simple.
2. The team must be able to see the scoreboard
3. Scoreboards should show both LAG (From X to Y by When) and lead measures (starts with a verb, show trends)
4. Team members must be able to tell immediately- within five seconds- if they are winning or losing
5. Team members create and update the scoreboard themselves.

Scoreboard Thinking

Conventional Thinking	4DX Thinking
Scoreboards are for the leaders. They are coaches' scoreboards that consist of complex spreadsheets with multiple data points. Their purpose is to enable coaches to strategize future moves.	Scoreboards are for the team. Team scoreboards are simple graphs or charts that show the current reality. At a glance, anyone can determine whether they are winning or losing. (An individual with a personal WIG should keep a personal scoreboard.)

Student Data-Driven Goal:

Public tracking systems

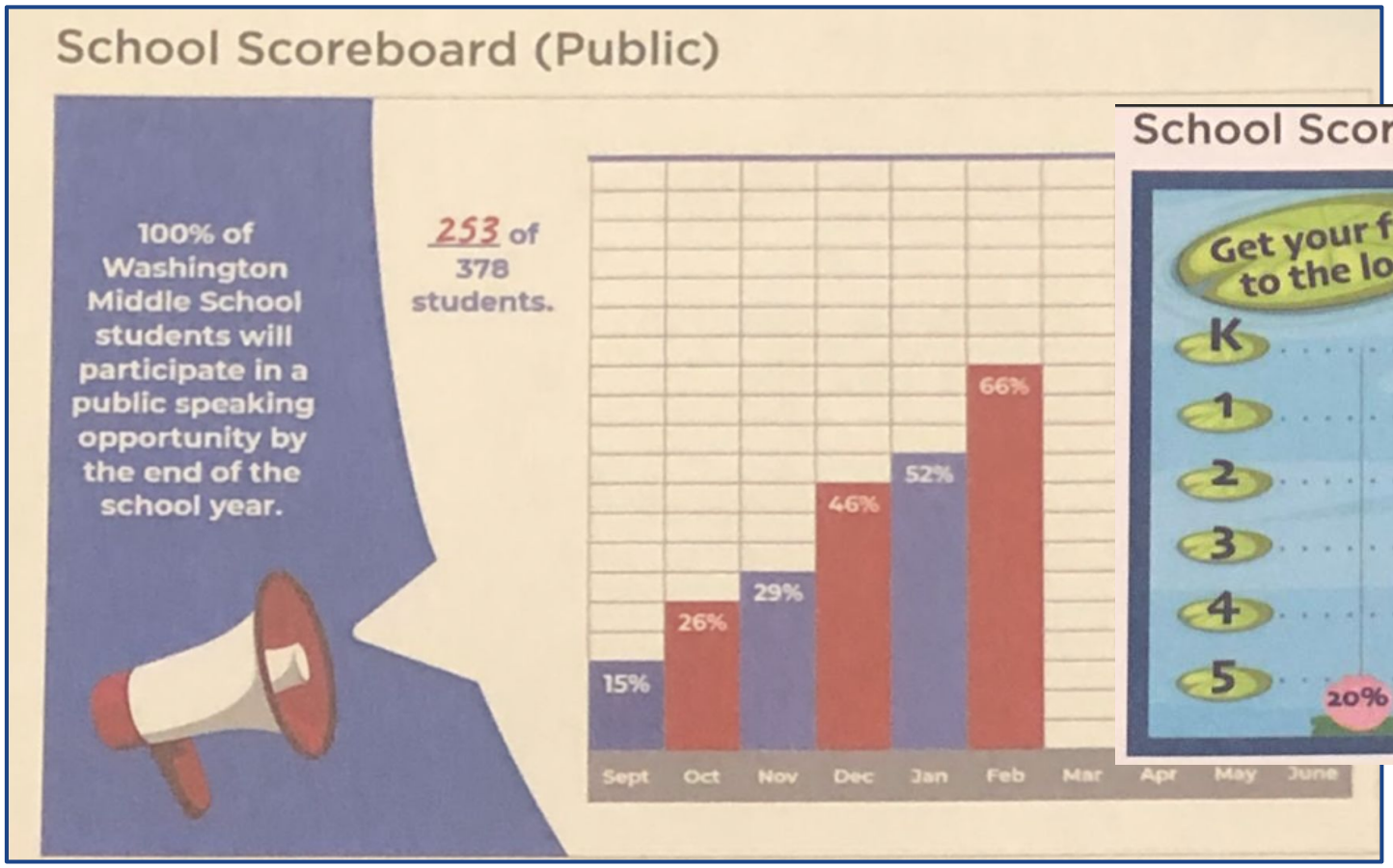
Core Idea | Public Tracking

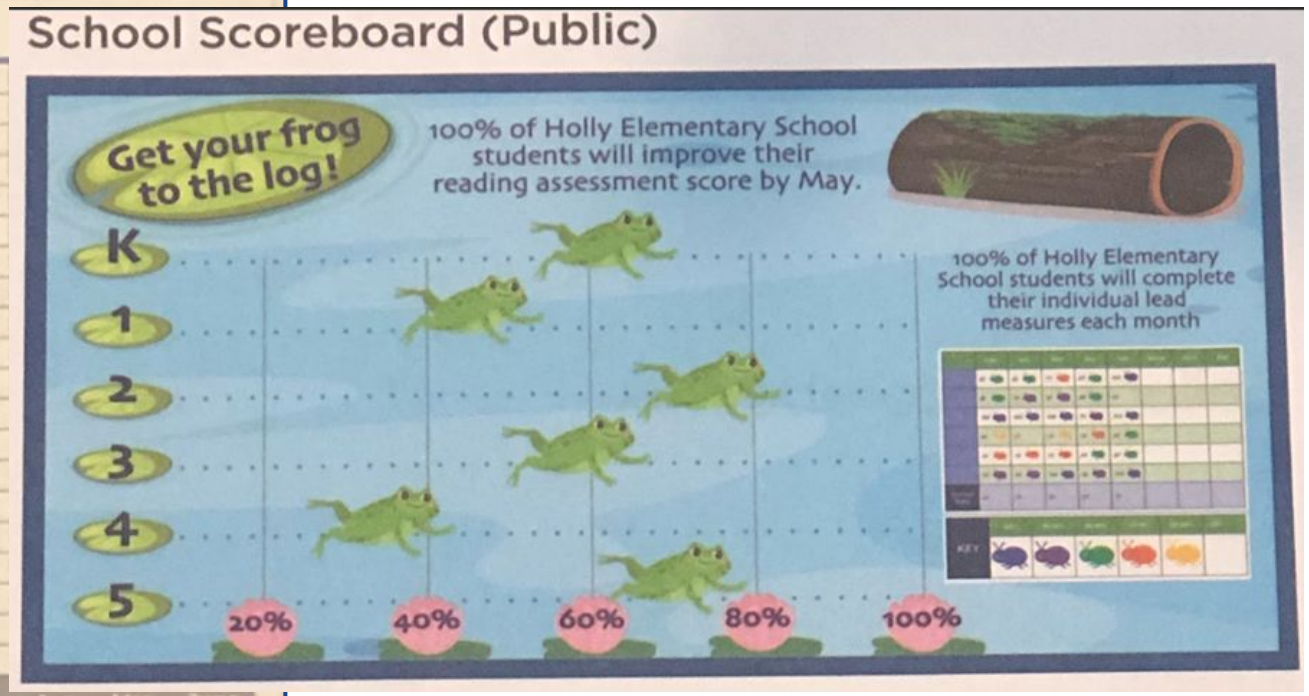
"People play differently when they are the ones keeping score. It's not about the leader keeping score for them.

-Sean Covey

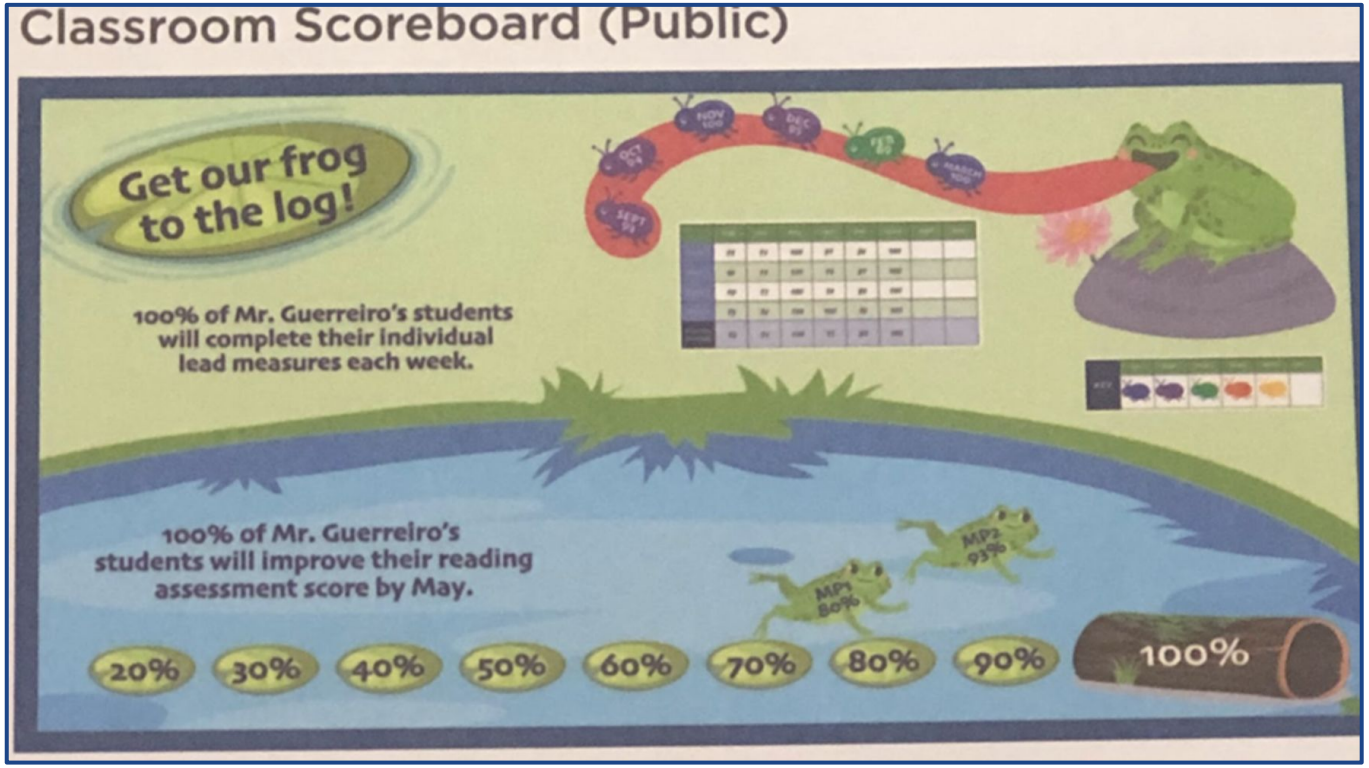
Navigator School Public Tracking Systems/Scoreboards

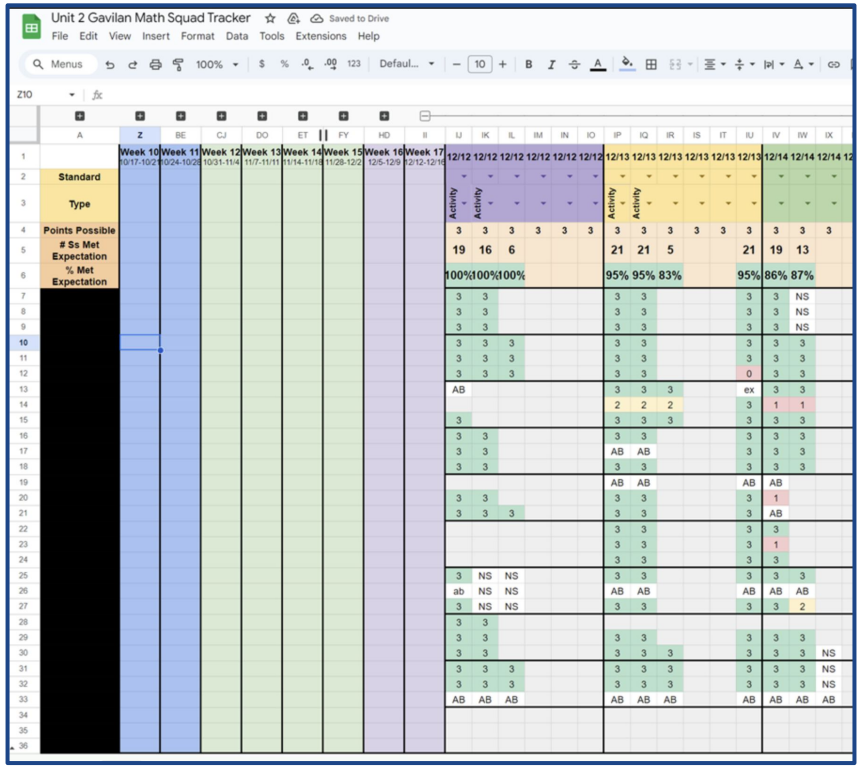
Schoolwide Scoreboards



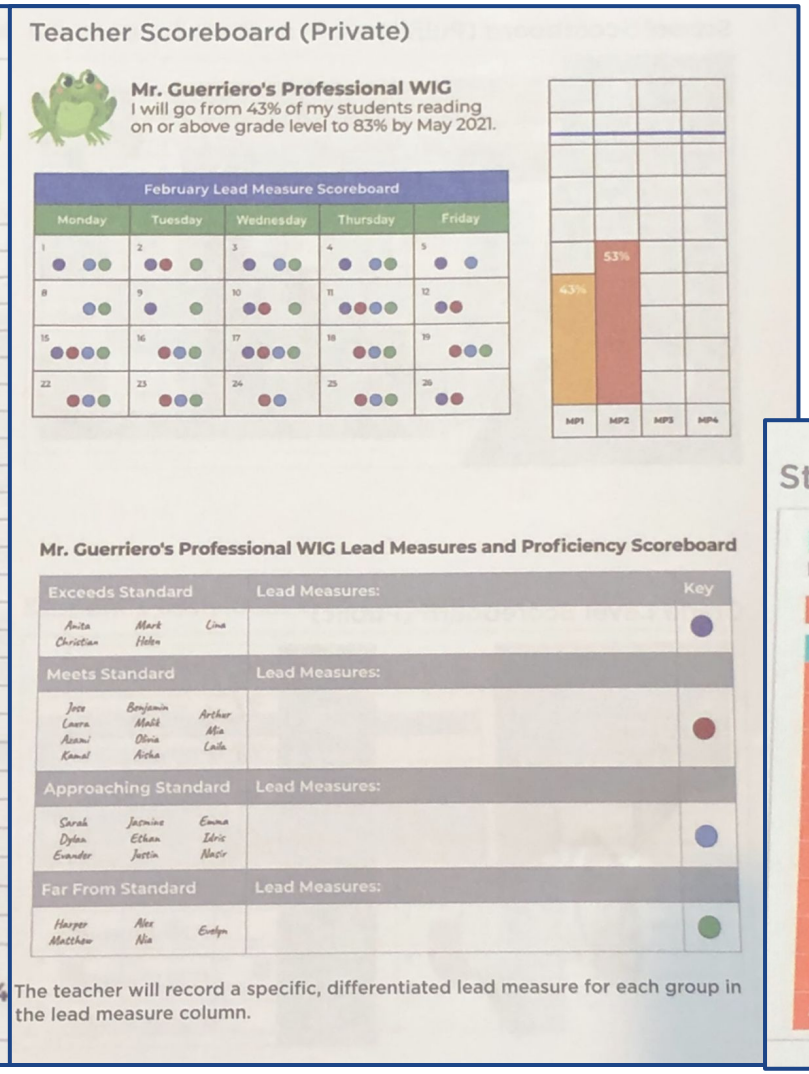


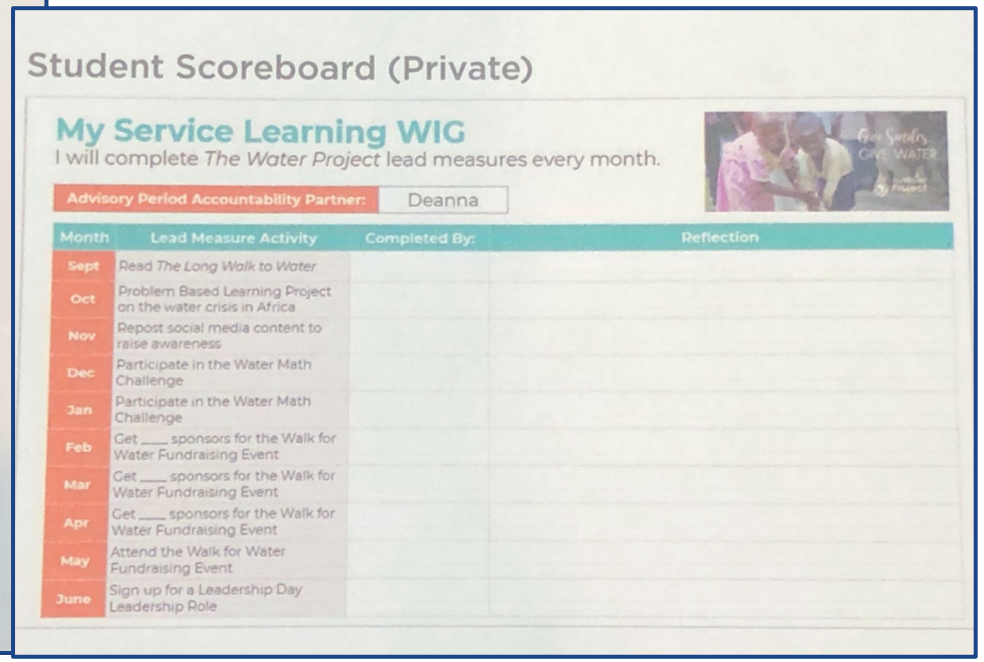
Classroom Scoreboards





Individual Scoreboards





Activity

Reflection (1 min) & Chat It In

- How do scoreboards increase student engagement?
- What are 2 scoreboards you want to implement?

Agenda

- Introductions and Welcome
- Strategy 1: Differentiation in the Classroom
- Strategy 2: Blended Learning
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- Thank you and Survey

Thank You

Coming Up: BPW3 – Increase the Rigor

March 28, 2024

Need help or a resource we mentioned today?

- Visit **navilearning.org**
- Send us an email
  - James Dent – james.dent@navigatorschools.org
  - Marlena Castellanoz – marlena.lopez@navigatorschools.org
  - Justin Steiner – justin.steiner@navigatorschools.org

Feedback Survey

Please complete the session survey.

Your feedback helps us get better for future sessions.

BPW2 Survey Link:
tinyurl.com/5b48uwjh

Thank You!