Rincon Valley Union School District

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Balanced Assessment Systems in Action

Hilary Kjaer
Director of Teaching & Learning,
Rincon Valley USD

Tasha Lopez
Continuous Improvement Specialist
TOSA, Rincon Valley USD

March 26, 2024

Welcome

Ingrid Roberson

Assistant Director of Research Learning, CCEE

- Recording & slides will be posted on CCEE's website
- Slides will be linked in the chat
- **Questions/Comments**: Please use the Q&A or "Raise Hand" features

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Agenda

- Overview of District & DRLN Project
- Implementing Formative Assessment in Math
- Measuring for Improvement and Impact
- Next Steps

District & Project Overview

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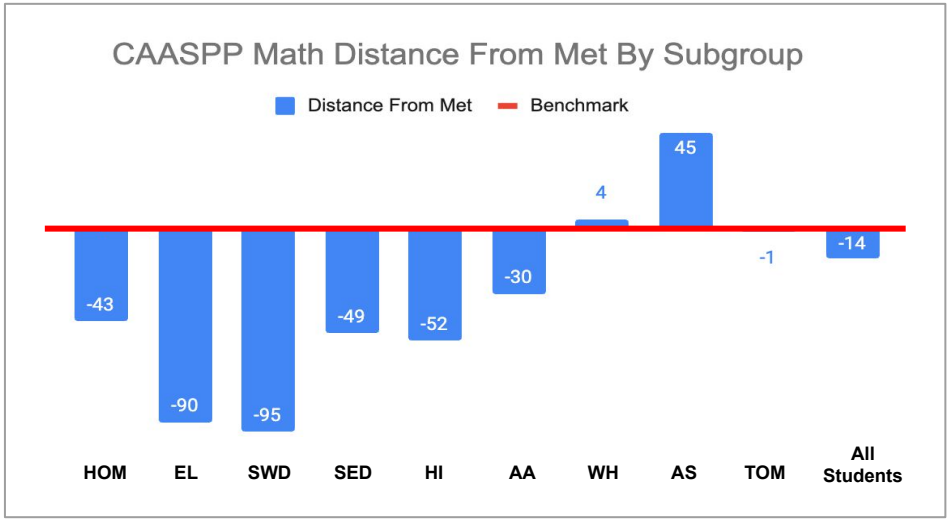
Rincon Valley Union School District

- 3,000 TK-6 learners, at seven elementary schools
- 200+ learners at charter middle school campus & Home Study program

White	48.5%
Hispanic	30.5%
Asian/ Pacific Islander	7.1%
African American	2.5%
Two or More	7.1%
English Learners	18.0%
Students with Disabilities	16.0%
Free and Reduced	30.0%



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What Brought Us Here

- CAC 2022
- Math Committee
- Teacher Survey
- Formative Assessment

Center for Assessment

Our Current Reality

"Nationwide, the average U.S. fifth grade classroom contained students across seven different grade levels ***before*** *the pandemic, according to research from NWEA. In the wake of the pandemic, that spread is now estimated to nine grade levels."*

(Edsource article, August 2023)

Balanced Assessment System

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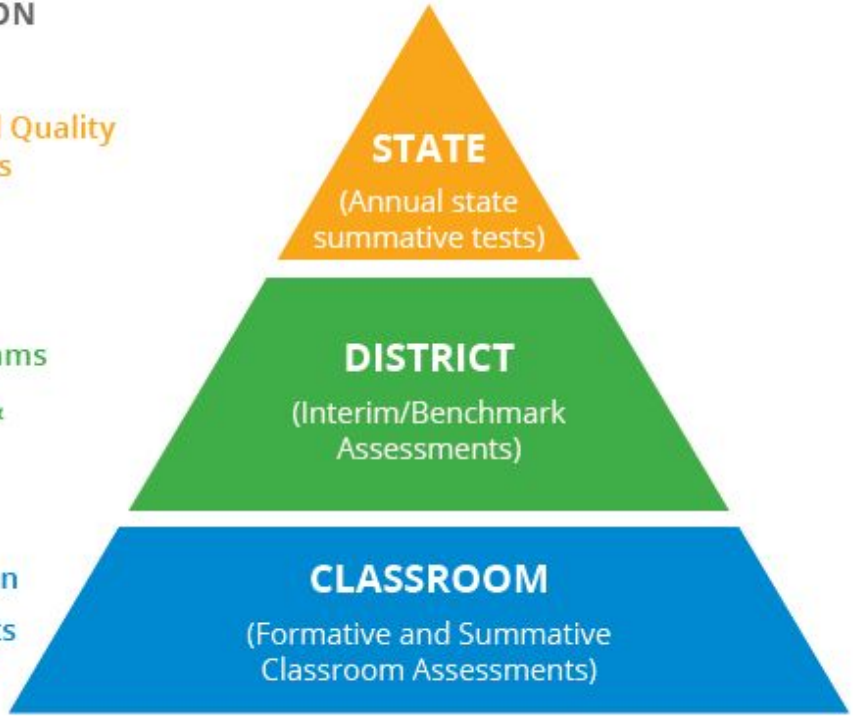
MAIN PURPOSES AND USES OF ASSESSMENT INFORMATION

- Evaluate Learning, School Quality (Accountability), & Policies
- Predict Learning
- Evaluate Curricula/Programs
- Inform student services & placement decisions
- Monitor/Adjust Instruction
- Inform Parents & Students about Learning Progress



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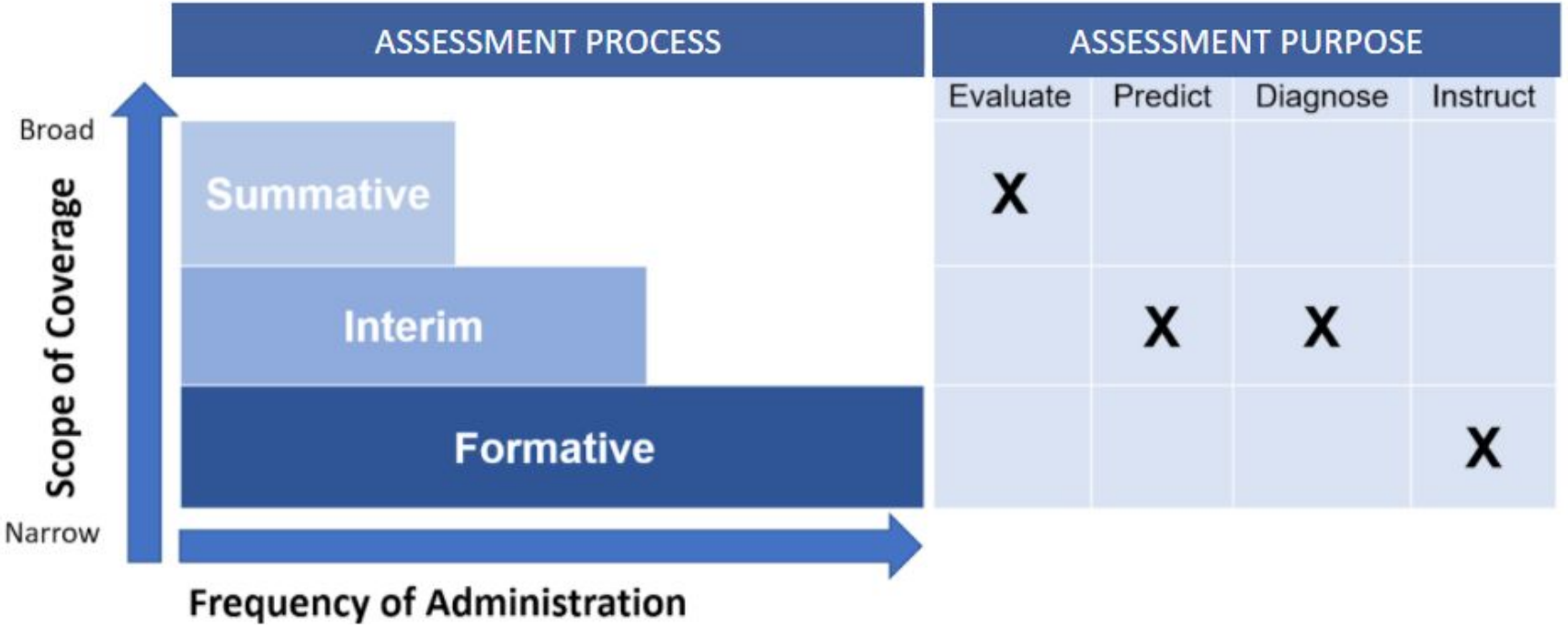
Matching Assessment Process & Purpose



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Formative Assessment Practice

<table>
<tr><th></th><th>Where the learner is going</th><th>Where the learner is now</th><th>How to get there</th></tr>
<tr><td>Teacher</td><td rowspan="3">Clarifying, sharing, and understanding learning intentions and success criteria</td><td>Engineering effective discussions, tasks, and activities that elicit evidence of learning</td><td>Providing feedback that moves learning forward</td></tr>
<tr><td>Peer</td><td colspan="2">Activating students as learning resources for one another</td></tr>
<tr><td>Learner</td><td colspan="2">Activating students as owners of their own learning</td></tr>
</table>

Wiliam, D. (2018). *Embedded formative assessment, 2nd ed*. Bloomington, IN: Solution Tree Press.

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Formative Assessment Practice

"…a **planned**, **ongoing process** used by all students and teachers **during learning and teaching** to **elicit and use evidence of student learning** to **improve student understanding** of intended disciplinary learning outcomes and support students to become self-directed learners."

Council of Chief State School Officers (2018, p. 2). Revising the Definition of Formative Assessment.

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DRLN Project Overview

Innovation Idea:

- Pilot comprehensive math formative assessment practices at two of our elementary school sites, Whited Elementary and Madrone Elementary
- Provide foundational training on both formative assessments and mathematical learning progressions

Anticipated Impact:

- Strengthened universal math instructional practices
- More collegial, data-centered conversations
- Improved student outcomes
- New model for strategic planning

Implementing Math Formative Assessments

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Implementation

A Two-Pronged Approach

Teacher Professional Learning

- Four Domains of Formative Assessment
- Ongoing Assessment Project (OGAP) Mathematical Learning Progressions

Walkthroughs

- Protocols, Look-Fors, Note-taking, Reflections (individual and general)
- Leadership & Teachers

Implementing at a Glance

September 2023

2 hr kickoff meeting with all participants

October 2023

Center for Assessment (CfA) facilitated meetings

- 8:30-10:00: Grades K-2
- 10:15-11:45: Grades 3-4
- 12:00-1:30: Grades 5-5

November 2023

RVUSD leadership meets with teachers

December 2023

CfA facilitated meetings (by grade span)

January 2024

RVUSD leadership meets with teachers

February 2024

CfA facilitated meetings (by grade span)

March 2024

RVUSD leadership meets with teachers

April 2024

CfA facilitated meetings (by grade span)

May 2024

2 hr meeting with all participants to celebrate learning

Teacher Professional Learning Plan

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Four Domains of Formative Assessment

Starts & Ends of Lessons

Eliciting Evidence of Student Understanding

Peer- and Self-Assessment

Use of Evidence

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OGAP Learning Progressions

"...a systemic and intentional formative assessment system in mathematics grounded in the research on how students learn mathematics."

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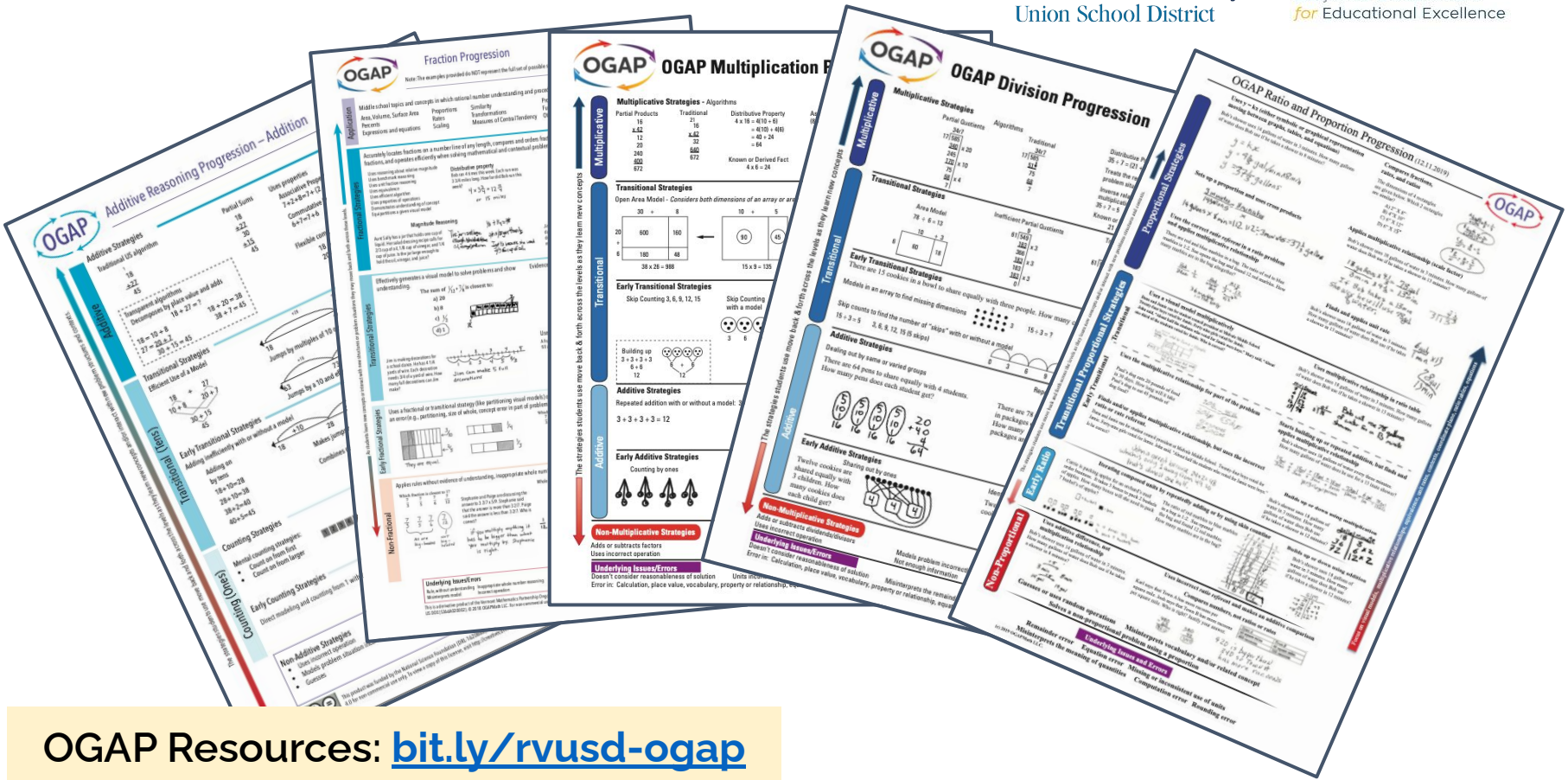
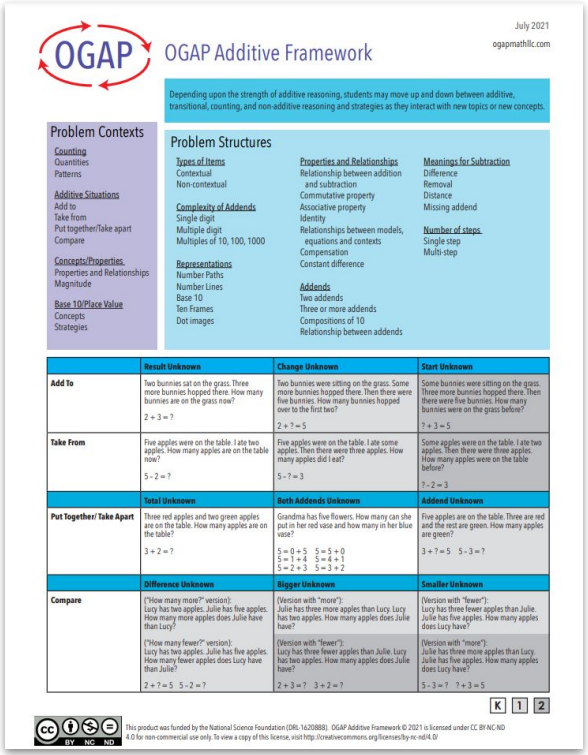


OGAP Resources: bit.ly/rvusd-ogap

OGAP Additive Framework



OGAP

OGAP Additive Framework

July 2021

ogapmathllc.com

Depending upon the strength of additive reasoning, students may move up and down between additive, transitional, counting, and non-additive reasoning and strategies as they interact with new topics or new concepts.

Problem Contexts

Counting
Quantities
Patterns

Additive Situations
Add to
Take from
Put together/Take apart
Compare

Concepts/Properties
Properties and Relationships
Magnitude

Base 10/Place Value
Concepts
Strategies

Problem Structures

Types of Items
Contextual
Non-contextual

Complexity of Addends
Single digit
Multiple digit
Multiples of 10, 100, 1000

Representations
Number Paths
Number Lines
Base 10
Ten Frames
Dot images

Properties and Relationships
Relationship between addition and subtraction
Commutative property
Associative property
Identity
Relationships between models, equations and contexts
Compensation
Constant difference

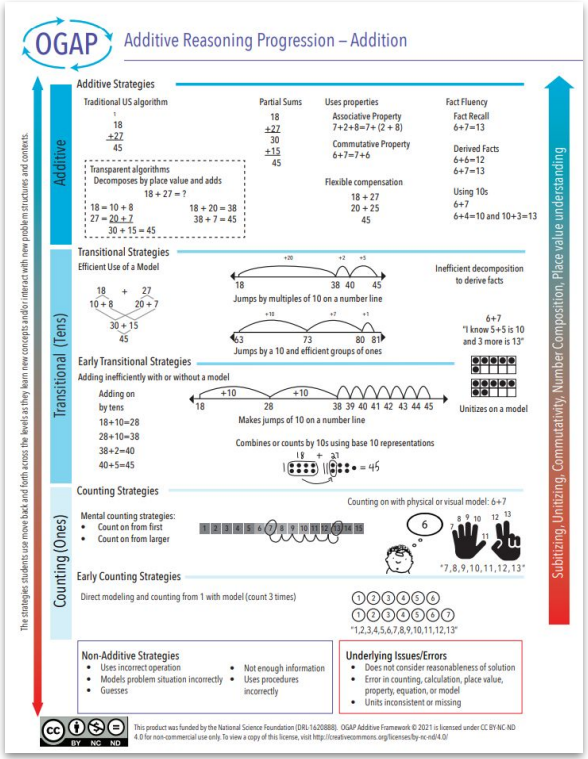
Addends
Two addends
Three or more addends
Compositions of 10
Relationship between addends

Meanings for Subtraction
Difference
Removal
Distance
Missing addend

Number of steps
Single step
Multi-step

	Result Unknown	Change Unknown	Start Unknown
Add To	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? 2 + 3 = ?	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? 2 + ? = 5	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? ? + 3 = 5
Take From	Five apples were on the table. I ate two apples. How many apples are on the table now? 5 - 2 = ?	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? 5 - ? = 3	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? ? - 2 = 3
	Total Unknown	**Both Addends Unknown**	**Addend Unknown**
Put Together/ Take Apart	Three red apples and two green apples are on the table. How many apples are on the table? 3 + 2 = ?	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? 5 = 0 + 5 5 = 5 + 0 5 = 1 + 4 5 = 4 + 1 5 = 2 + 3 5 = 3 + 2	Five apples are on the table. Three are red and the rest are green. How many apples are green? 3 + ? = 5 5 - 3 = ?
	Difference Unknown	**Bigger Unknown**	**Smaller Unknown**
Compare	("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? 2 + ? = 5 5 - 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with "fewer"): Lucy has three fewer apples than Julie. Lucy has two apples. How many apples does Julie have? 2 + 3 = ? 3 + 2 = ?	(Version with "fewer"): Lucy has three fewer apples than Julie. Julie has five apples. How many apples does Lucy have? (Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? 5 - 3 = ? ? + 3 = 5

K 1 2



OGAP

Additive Reasoning Progression – Addition

The strategies students use move back and forth across the levels as they learn new concepts and/or interact with new problem structures and contexts.

Additive

Transitional (Tens)

Counting (Ones)

Subitizing, Unitizing, Commutativity, Number Composition, Place value understanding

Additive Strategies

Traditional US algorithm

18
+27
45

Transparent algorithms
Decomposes by place value and adds
18 + 27 = ?
18 = 10 + 8
27 = 20 + 7
30 + 15 = 45
18 + 20 = 38
38 + 7 = 45

Partial Sums

18
+27
30
+15
45

Uses properties
Associative Property
7+2+8=7+ (2 + 8)
Commutative Property
6+7=7+6

Flexible compensation
18 + 27
20 + 25
45

Fact Fluency
Fact Recall
6+7=13

Derived Facts
6+6=12
6+7=13

Using 10s
6+7
6+4=10 and 10+3=13

Transitional Strategies

Efficient Use of a Model

18 + 27
10 + 8 20 + 7
30 + 15
45

Jumps by multiples of 10 on a number line

Jumps by a 10 and efficient groups of ones

Inefficient decomposition to derive facts

6+7
"I know 5+5 is 10 and 3 more is 13"

Early Transitional Strategies

Adding inefficiently with or without a model

Adding on by tens
18+10=28
28+10=38
38+2=40
40+5=45

Makes jumps of 10 on a number line

Unitizes on a model

Combines or counts by 10s using base 10 representations

18 + 27 = 45

Counting Strategies

Mental counting strategies:
- Count on from first
- Count on from larger

Counting on with physical or visual model: 6+7

"7 ,8, 9, 10, 11, 12, 13"

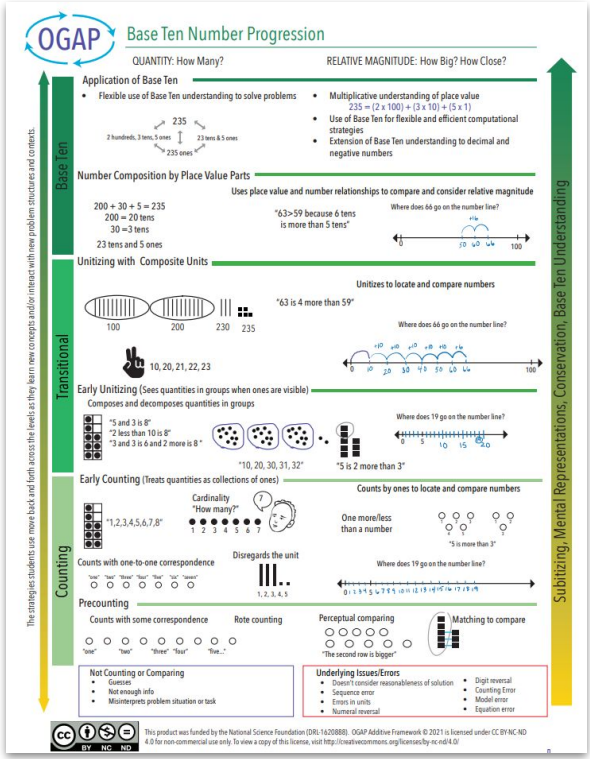
Early Counting Strategies

Direct modeling and counting from 1 with model (count 3 times)

"1,2,3,4,5,6,7,8,9,10,11,12,13"

Non-Additive Strategies
- Uses incorrect operation
- Models problem situation incorrectly
- Guesses
- Not enough information
- Uses procedures incorrectly

Underlying Issues/Errors
- Does not consider reasonableness of solution
- Error in counting, calculation, place value, property, equation, or model
- Units inconsistent or missing



OGAP

Base Ten Number Progression

The strategies students use move back and forth across the levels as they learn new concepts and/or interact with new problem structures and contexts.

QUANTITY: How Many?

RELATIVE MAGNITUDE: How Big? How Close?

Base Ten

Transitional

Counting

Subitizing, Mental Representations, Conservation, Base Ten Understanding

Application of Base Ten
- Flexible use of Base Ten understanding to solve problems
- Multiplicative understanding of place value 235 = (2 x 100) + (3 x 10) + (5 x 1)
- Use of Base Ten for flexible and efficient computational strategies
- Extension of Base Ten understanding to decimal and negative numbers

235
2 hundreds, 3 tens, 5 ones
23 tens & 5 ones
235 ones

Number Composition by Place Value Parts

Uses place value and number relationships to compare and consider relative magnitude

200 + 30 + 5 = 235
200 = 20 tens
30 =3 tens
23 tens and 5 ones

"63>59 because 6 tens is more than 5 tens"

Where does 66 go on the number line?

Unitizing with Composite Units

Unitizes to locate and compare numbers

"63 is 4 more than 59"

Where does 66 go on the number line?

10, 20, 21, 22, 23

Early Unitizing (Sees quantities in groups when ones are visible)

Composes and decomposes quantities in groups

"5 and 3 is 8"
"2 less than 10 is 8"
"3 and 3 is 6 and 2 more is 8 "

"10, 20, 30, 31, 32"

"5 is 2 more than 3"

Where does 19 go on the number line?

Early Counting (Treats quantities as collections of ones)

Counts by ones to locate and compare numbers

"1,2,3,4,5,6,7,8"

Cardinality "How many?"

One more/less than a number

"5 is more than 3"

Counts with one-to-one correspondence

Disregards the unit

1, 2, 3, 4, 5

Where does 19 go on the number line?

Precounting

Counts with some correspondence

Rote counting

"one" "two" "three" "four" "five..."

Perceptual comparing

"The second row is bigger"

Matching to compare

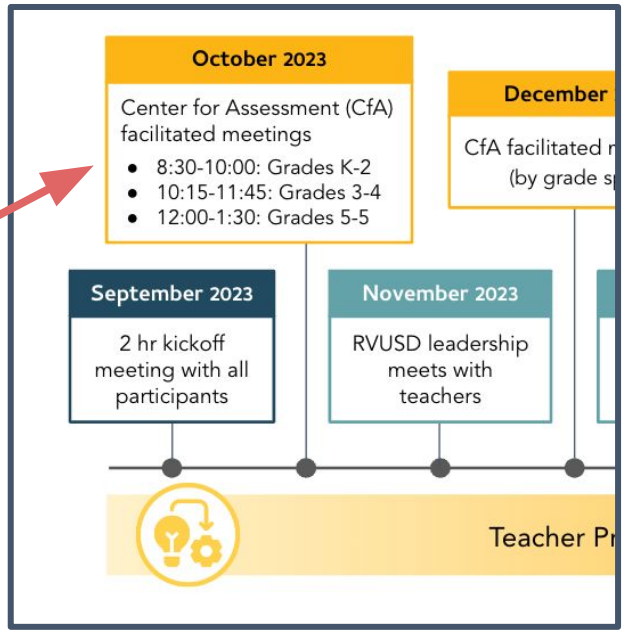
Not Counting or Comparing
- Guesses
- Not enough info
- Misinterprets problem situation or task

Underlying Issues/Errors
- Doesn't consider reasonableness of solution
- Sequence error
- Errors in units
- Numeral reversal
- Digit reversal
- Counting Error
- Model error
- Equation error

Professional Learning Sessions

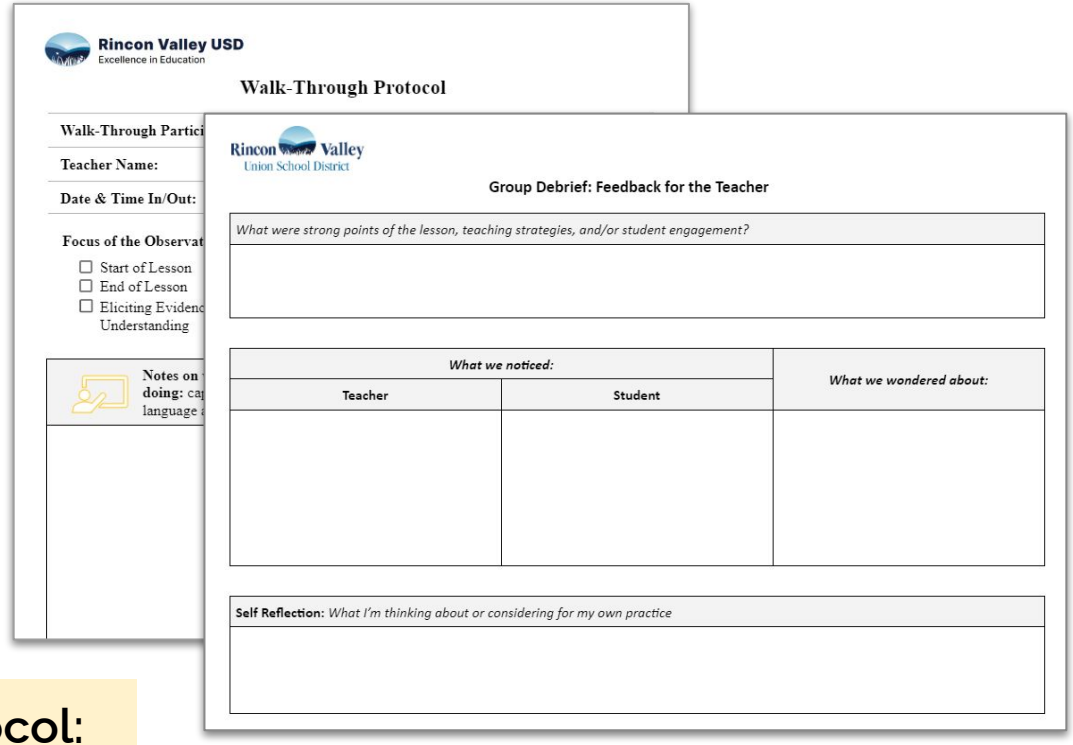
What They Look Like

- 5 roving subs per site
- Training Session Content
  - *First half*: OGAP training based on content current being taught
  - *Second half*: Formative Assessment Domain
  - Time for reflection/action plan



Walkthroughs

"In Rincon Valley, walkthroughs open the doors of classrooms so that all teachers can learn from one another and grow together in the practice of teaching. The goal of all of our work is to better serve all learners."



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Walk-Through Protocol

Walk-Through Partici

Teacher Name:

Date & Time In/Out:

Focus of the Observat

- ☐ Start of Lesson
- ☐ End of Lesson
- ☐ Eliciting Evidenc Understanding

Notes on doing: cap language

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Group Debrief: Feedback for the Teacher

What were strong points of the lesson, teaching strategies, and/or student engagement?

What we noticed:		*What we wondered about:*
Teacher	**Student**	

Self Reflection: *What I'm thinking about or considering for my own practice*

Walkthrough/Reflection Protocol:
bit.ly/rvusd-walkthrough

Walkthrough Debrief Notes- Teacher Feedback

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Group Debrief: Feedback for the Teacher- [redacted]

What were strong points of the lesson, teaching strategies, and/or learner engagement?

- *Teacher provided encouraging, immediate, individual feedback to learners, which elicited more engagement*
- *Varied evidence gathering opportunities were offered; whiteboards, base ten blocks, whole group, partner, individual work*

What we noticed:		***What we wondered about:***
Teacher	**Learner**	
• *Teacher observed individual learners to gather evidence and provide immediate correction with guidance, but not answers* • *Teacher used questioning strategies, "If you have 50, how many more?"* • *Teacher went over the learning objective with learners*	• *Learners were self-monitoring their own learning by checking their work on the mini whiteboard, so not all the responsibility was on the teacher* • *Learners "Chin It" with whiteboards to show their understanding- this provides accountability for each learner* • *Learners helping one another out - the Teacher's strategic partnering allowed for this*	• *Curious why they did the quick tens first (more abstract) before base 10 blocks (more concrete)?*

Self-Reflection

What I'm thinking about or considering for my own practice:

- *Teacher provided affirmation to learners when they help one another - this builds class culture to be a safe place to take risks*

Walkthrough Debrief Notes- Overall Trends

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Walk-Through Participant Names: Whited Teachers, Beth Acosta, Hilary Kjaer

Grade Level(s): K, 1, 3, 4, 5

Date: 2-8-24

Group Debrief: Patterns/Trends Across Classrooms

What we noticed:

- *Learning goals were posted and then referred to by the teachers*
- *Teachers provided a lot of response opportunities; gestures, thumbs up, partner talk, choral responses*
- *Teacher provided encouraging, immediate, individual feedback to learners, which elicited more engagement*
- *The addition of video and songs for engaging learners and checking for understanding*
- *Teachers were walking around and checking in with learning partners as they talked*
- *Learners had a great sense of ownership to tasks when they had choice in the numbers, created their own story problems, and/or used their own names*

What we wondered about:

- *What cues might we consider for learners that are done with their thinking early - how do we redirect/prompt them to continue thinking?*
- *Wait time - how do we know that we have given learners enough time? When is it too much? Not enough?*

Considerations for next steps or actions:

- *We learned some new ways that we can offer learners to take more ownership in the assessment and feedback cycle and share their understanding; Show a scale of confidence with their hands/arms, use Brains and Scribes during partner work*
- *When we encourage learners to "use their tool/resources" it allows teacher to understand where they are in their learning, based off of what they select to use*
- *Provide affirmation to learners when they help one another - this builds class culture to be a safe place to take risks*
- *Find ways for learners to self-monitor their own learning (i.e. by checking their work with the teacher's work on a small whiteboard) so not all the responsibility is on the teacher*

Center for Assessment

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Measuring Improvement and Impact

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Our Tools

Learner Survey

Teacher Survey

Walkthrough Protocol

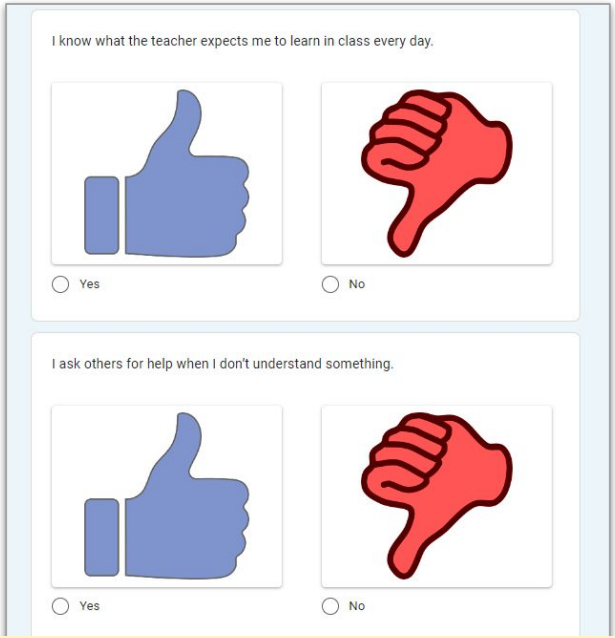
Learner Survey

Noticings

- Learners discuss multiple strategies for solving problems
- Learners overall feel very positive about the math instruction that they receive from their teachers (Halo Effect?)
- Learners do not self-assess or assess the work of their peers often

Wonderings

- What kinds of strategies are discussed in the classroom, and whether the strategies discussed are put into use, or just talked about?
- How are learners getting feedback from peers?
- What kind of formative assessment is happening in the classroom?



Learner Surveys

- Grades 3-4: bit.ly/rvusd-34survey
- Grades 5-6: bit.ly/rvusd-56survey

Teacher Survey

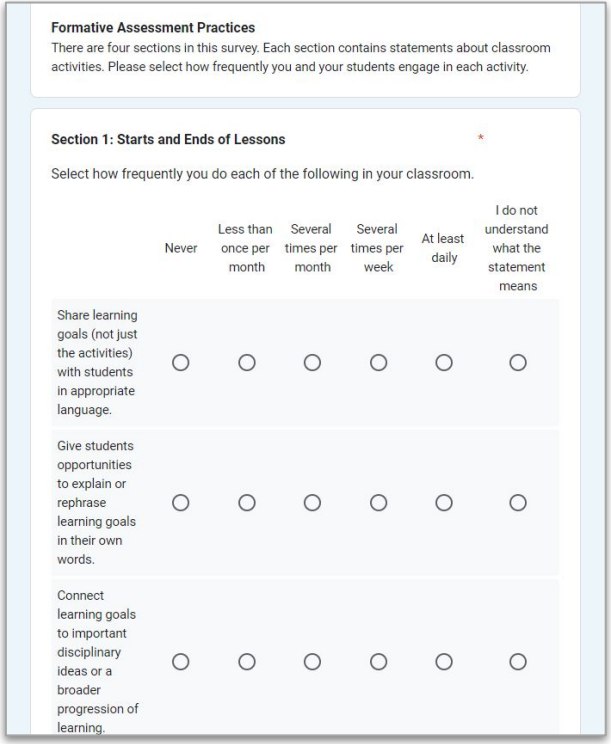
Takeaways

Noticings

- Learning goals and success criteria at the starts and ends of lessons and peer/self reflection are areas with lower reported use

Wonderings

- How are teachers interpreting the formative assessment information?
- What instructional actions do teachers take after collecting the formative assessment information?
- How effective are the instructional adjustments/changes in relation to improving student learning in mathematics?



Formative Assessment Practices

There are four sections in this survey. Each section contains statements about classroom activities. Please select how frequently you and your students engage in each activity.

Section 1: Starts and Ends of Lessons *

Select how frequently you do each of the following in your classroom.

	Never	Less than once per month	Several times per month	Several times per week	At least daily	I do not understand what the statement means
Share learning goals (not just the activities) with students in appropriate language.	○	○	○	○	○	○
Give students opportunities to explain or rephrase learning goals in their own words.	○	○	○	○	○	○
Connect learning goals to important disciplinary ideas or a broader progression of learning.	○	○	○	○	○	○

Teacher Survey: bit.ly/rvusd-tsurvey

Walkthroughs

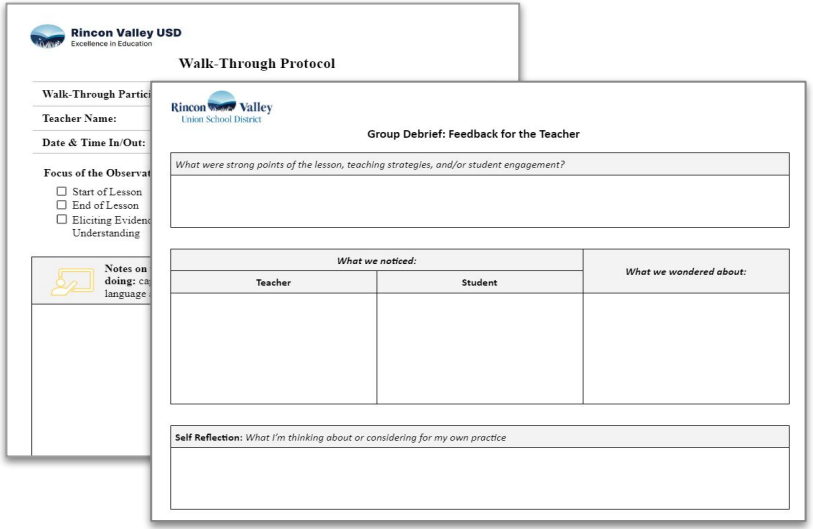
Takeaways

Noticings

- Most teachers used learning objectives
- Learners explaining thinking, but teacher-centered approaches
- Academic language woven in
- Partner talk

Wonderings

- How could could peers explain to others, shifting focus from teacher to learner?
- How can we leverage academic language to develop understanding together?



Walkthrough/Reflection Protocol:
bit.ly/rvusd-walkthrough

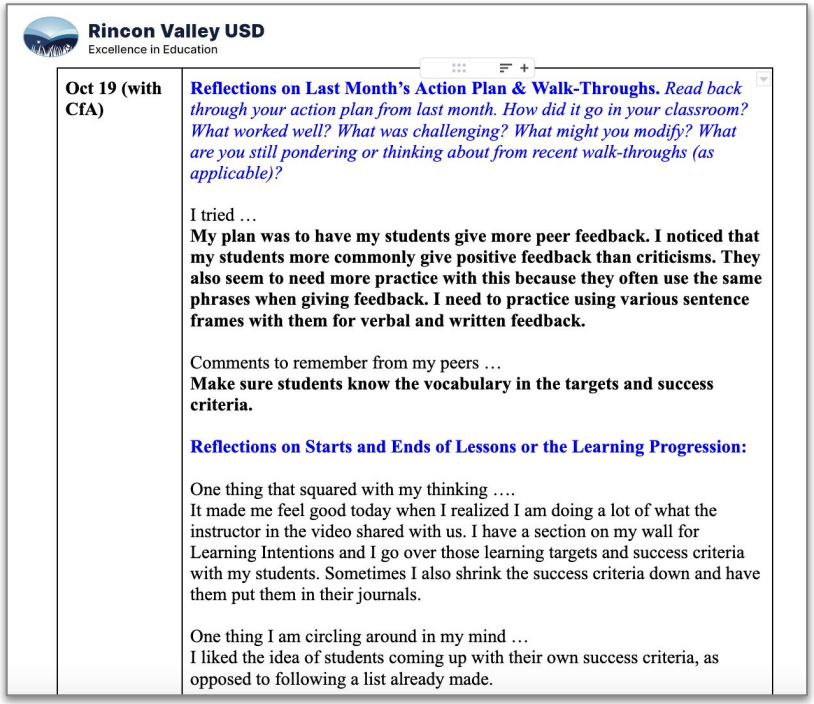
Teacher Action Plans

The purpose of this document is three-fold:

To **record reflections, learnings, insights, and questions** that might arise during any of the learning community meetings

To **track action plans** over the course of the year

To **note any feedback** you get when you share how things have been going as you implement formative assessment practices in your classroom or to note ideas that you want to try based on what others have shared or you observed during walkthroughs



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Oct 19 (with CfA)	**Reflections on Last Month's Action Plan & Walk-Throughs.** *Read back through your action plan from last month. How did it go in your classroom? What worked well? What was challenging? What might you modify? What are you still pondering or thinking about from recent walk-throughs (as applicable)?* I tried … **My plan was to have my students give more peer feedback. I noticed that my students more commonly give positive feedback than criticisms. They also seem to need more practice with this because they often use the same phrases when giving feedback. I need to practice using various sentence frames with them for verbal and written feedback.** Comments to remember from my peers … **Make sure students know the vocabulary in the targets and success criteria.** **Reflections on Starts and Ends of Lessons or the Learning Progression:** One thing that squared with my thinking …. It made me feel good today when I realized I am doing a lot of what the instructor in the video shared with us. I have a section on my wall for Learning Intentions and I go over those learning targets and success criteria with my students. Sometimes I also shrink the success criteria down and have them put them in their journals. One thing I am circling around in my mind … I liked the idea of students coming up with their own success criteria, as opposed to following a list already made.

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Measuring at a Glance

Fall 2023

- BoY Teacher Surveys
- BoY Learner Surveys
- Center for Assessment OGAP/FA Training
- Admin Walkthroughs

January/ February 2024

- Center for Assessment OGAP/FA Training
- Teacher Walkthroughs

April/May 2024

- EoY Teacher Survey
- EoY Learner Survey
- Reflections/Planning for 2024-25
- Teacher Walkthroughs

August 2024

- District-Wide OGAP/FA Roll Out

Conduct Walkthroughs & Adjust Adult Learning as Needed

Systems-Level Considerations

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Systems

How do we achieve “buy-in”?

- Alignment to current initiatives
- Urgency around the current reality – an authentic “Why”
- Know where people are
- Anticipate & eliminate barriers
- Leadership capacity, ownership, and commitment
- Ongoing professional learning cycle to maintain momentum

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Scaling the Work

Reflections and Implications for 2024-25

Intention

- Leveraging the learning from this year as springboard for next year
- Develop common language and understanding
- Continued partnership with CCEE & Center for Assessment

Reality

- Remaining limber to align with a shift in initiatives
- Considering logistical obstacles (subs, scheduling)
- Continued partnership with CCEE & Center for Assessment

Questions

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Thank You

Contact

Hilary Kjaer
Director of Teaching & Learning, RVUSD
hkjaer@rvusd.org

Tasha Lopez
Continuous Improvement Specialist, TOSA
tlopez@rvusd.org

Next Steps

Interested in connecting further? Join us for the **Special Interest Group (SIG) Session** by providing your contact information in the feedback survey!

Feedback Survey:
www.surveymonkey.com/r/OD-326

Rincon Valley Union School District

ccee California Collaborative for Educational Excellence

Upcoming Open Door Sessions

The Power of Data Partnerships: District Data Sharing Through the Local Assessment Project

- Tuesday, 4/9 from 3-4pm
- Registration link: bit.ly/3VxkzHs

San Bernardino CSS shares how they tackled the critical challenge of improving student progress tracking in reading and math. Discover how they identified the gaps in their local assessment data and how they initiated the Local Assessment Project to fill this void.

Strengthening Coherence Across Initiatives: A Whole-Child Lens

- Wednesday, 4/10 from 3-4pm
- Registration link: bit.ly/3PpEaW6

We often hear a focus on “whole-child” in the California education conversation… but what exactly does it mean? And how can all these different initiatives create a coherent approach in schools? This session highlights the common, mutually-reinforcing whole-child practices across California initiatives, shares best practices from districts, and provides tips for taking action towards coherence.