

What Teacher Teams Do to Maximize the Impact of Formative Assessment

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What Teacher Teams Do to Maximize the Impact of Formative Assessment

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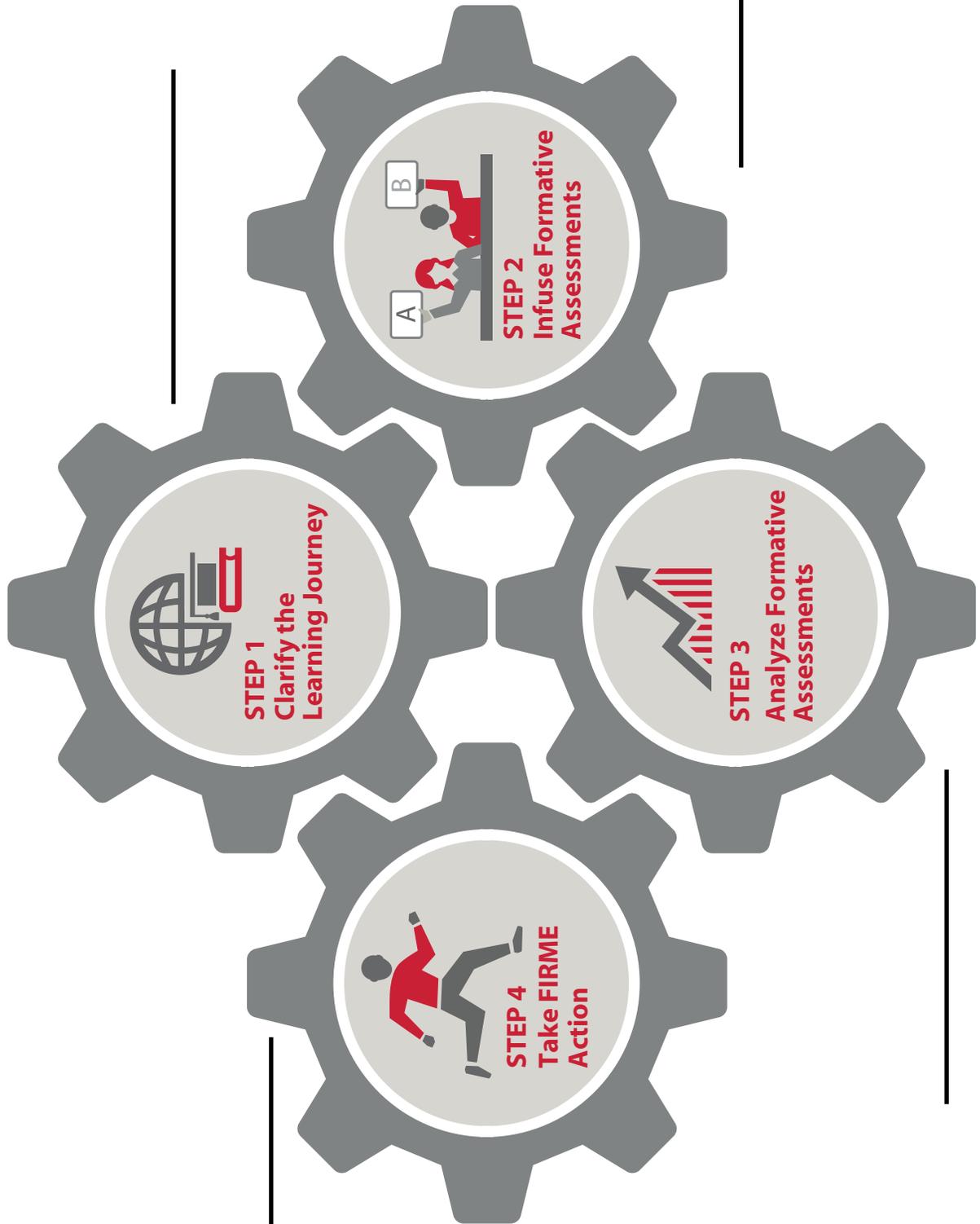
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FAR Partners



Formative Assessment—The Real Deal

“The research-based concept of formative assessment, closely grounded in classroom instructional processes, has been taken over—hijacked—by commercial test publishers and is used instead to refer to formal testing systems called ‘benchmark’ or ‘interim assessment systems.’” — Lorrie Shepard, 2006

You won’t find any argument among researchers that formative assessment—teachers and students using evidence of learning to adapt teaching and learning as part of daily instruction—has a potent effect on student achievement. According to John Hattie’s synthesis of over 800 meta-analyses relating to student achievement, providing formative assessment comes in third in the ranking of 138 practices for its positive effect on student achievement. Feedback ranked tenth (2009, p. 297). Hattie concludes that it is essential that learning be visible “so that it can be monitored, feedback provided, and information given when learning is successful” (2009, p. 37). Paul Black and Dylan Wiliam concur. They analyzed 250 research studies and found “that attention to the use of assessments to inform instruction, particularly at the classroom level, in many cases effectively doubled the speed of student learning” (2009, p. 36).

However, it is important to be clear about what these researchers mean by formative assessment. Some testing companies would like us to believe that a particular test is a formative assessment. This has led to a great deal of confusion about what formative assessment is and is not. First of all, formative assessment is *not* a test. According to James Popham, “tests all by themselves are neither summative nor formative. It is the use to which a given test’s results are put that makes the test part of the formative-assessment process or, instead, finds it contributing to a summative assessment decision” (2014, p. 291). Jan Chappuis distills the meaning of formative assessment like this: “formative assessment is not simply an instrument or an event, but a collection of practices with a common feature: *They all lead to some action that improves learning*” (2015, p. 2).

Here are some other definitions that clarify the meaning and intent of formative assessment:

Formative assessment is defined as assessment carried out during the instructional process for the purpose of improving teaching or learning...What makes formative assessment formative is that it is immediately used to make adjustments so as to form new learning. (Shepard, 2008/2009, p. 281)

An assessment functions formatively to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of that evidence. (Wiliam, 2011, p. 43)

Formative Assessment: formal and informal processes teachers and students use to gather evidence for the purpose of informing next steps in learning. (Chappuis, 2015, p. 3)

Formative assessment as defined above is pedal-to-the-metal for student achievement. In addition, it has another bonus effect: it leverages other vital teaching skills that also accelerate student learning. For example, you cannot formatively assess if students are not crystal clear about learning targets (student-

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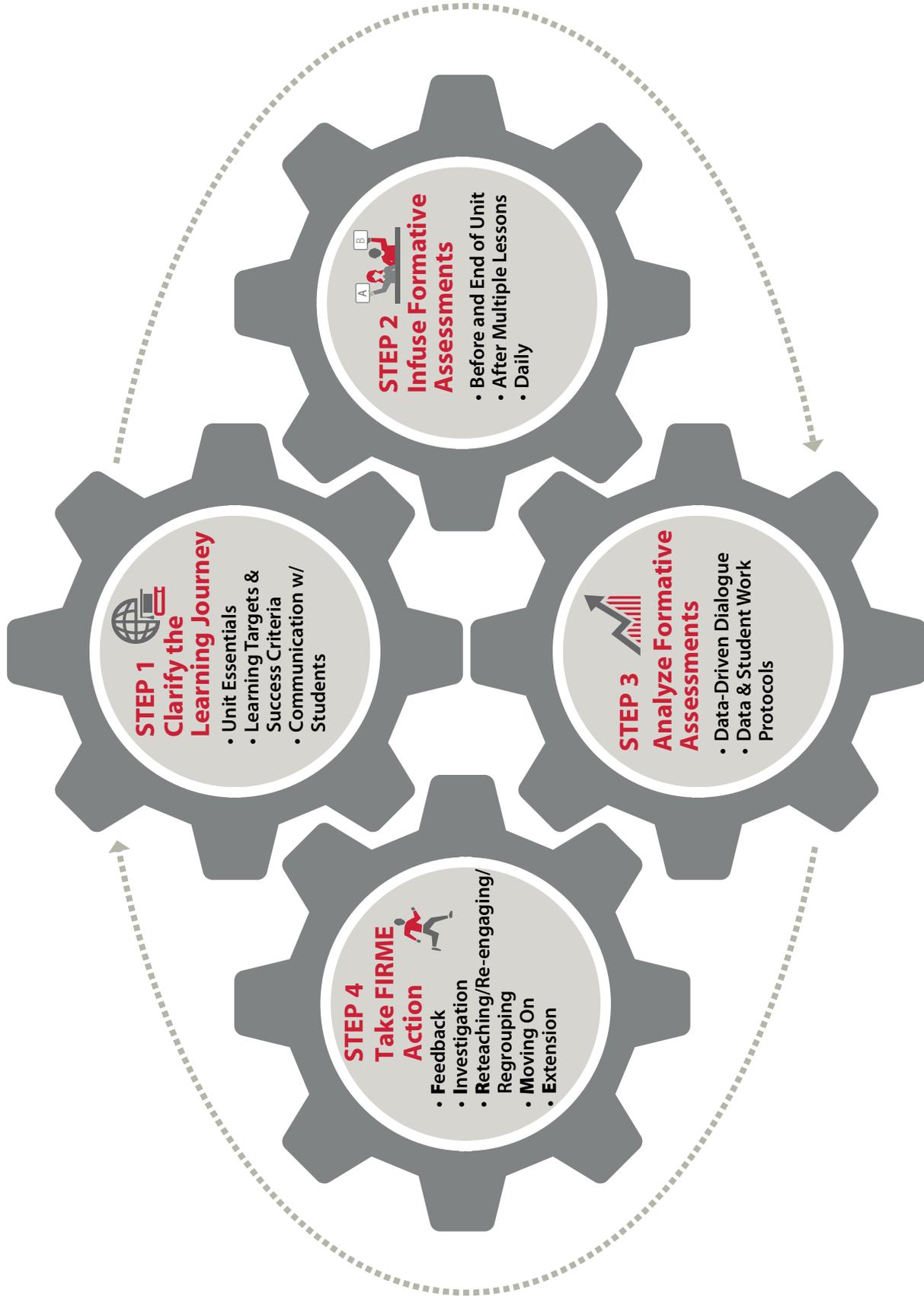


friendly lesson objectives) and success criteria. Nor can you implement formative assessment effectively without planning for and putting into motion a variety of ways to engage every student and make their thinking visible in the classroom—to both diagnose and deepen their understanding. Then there is the need to analyze the results and *use* those results to provide skillful feedback and/or reteaching to students. Students, in turn, learn to self-assess, set goals, and improve their learning tactics individually and with their peers. Underlying all of these practices is a firm belief in the growth mindset, a commitment to equity and cultural proficiency, and the establishment of a classroom culture that supports risk-taking and embraces mistakes as learning opportunities. In short, formative assessment can be the catalyst to strengthening a whole constellation of high-impact teaching skills.

This is the good news. Here's the bad news. Despite more than a decade of focus on data, formative assessment as a practice, not a test, remains misunderstood and underutilized. We're guessing here, but it looks to us like the percentage of time spent on summative versus formative assessments breaks out to roughly 80% summative and 20% formative. Think about the time teachers and administrators spend analyzing summative data (e.g., state tests) and grading tests and students—when it is often too late to make timely adjustments to teaching and learning. Compare that to the time spent analyzing and taking action (e.g., feedback, reteaching, extension) in response to less formal assessments, those given daily, weekly, and before and after instructional units. What if we could flip the balance to 80% formative and 20% summative? What might be the impact? What if we spent more time planning for and infusing formative assessment into daily instruction and less time grading and summatively assessing? And what if we focused on getting better at what to *do* differently in the next lesson so more students achieve proficiency and take ownership of their own learning? Making these shifts is at the heart of the FAR cycle.



Formative Assessment for Results (FAR) Cycle with Detail





Clarifying the Learning Journey at the Lesson Level: Analysis Worksheet

The criteria for worthwhile instructional objectives, effective learning targets, and clear success criteria are listed below.

Establishing and Sharing the Learning Targets with Students	Establishing and Communicating Clear Success Criteria with Students
<p>Learning targets... Identify the “right stuff”:</p> <ol style="list-style-type: none"> Identify the most important or worthwhile concept, skill, or reasoning Are limited to what can be learned in a lesson or two Include academic vocabulary when appropriate <p>Are clearly stated:</p> <ol style="list-style-type: none"> Speak to the learners rather than about them (first or second person rather than third person) Use active performance verbs to describe what students will know or be able to do (classify, explain, convert, locate evidence, justify, construct, organize, etc.) Separate what students will learn from what they will do (the activity) Use student-friendly language and/or symbols (that assume learners have not yet mastered the learning target) <p>Are effectively shared:</p> <ol style="list-style-type: none"> Are shared with learners verbally and in writing (and may also use pictures, demonstrations, etc.) Provide a clear and compelling reason to learn, connecting to prior and future learning and their life (e.g., hook them with a story or an experience) Provide an image of what students will be expected to do to demonstrate what they have learned (assessment) Are understood by students, i.e., they can put them in their own words (teacher checks for understanding and unpacks academic vocabulary as needed) Communicate to students what they will be doing to reach the target (activities) Are revisited during the learning for clarity, focus, and reinforcement 	<p>Success criteria... Are focused and specific:</p> <ol style="list-style-type: none"> Refer to the linked task or performance (assessment) List the individual attributes of a successful product or performance Are stated in the present tense Are linked directly to the learning target Contain no criteria extraneous to the learning target (or related assessment) Where applicable, identify graduated levels of performance (typical steps and missteps) within each quality attribute (as in an analytic rubric) <p>Are effectively shared:</p> <ol style="list-style-type: none"> Are discussed with and understood or agreed to by students prior to undertaking a product or performance Are written down or visually represented for students to refer to as they complete the task Are presented through concrete models of work that exemplify the criteria May be further clarified by examining and discussing models of work that do not exemplify the criteria When appropriate, are developed with student input Are used as the basis for assessment and feedback by students, by teachers, and, when appropriate, by their peers

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Creating a Success Criteria Checklist for a Task

1. Insert the learning target(s) related to the task (product or performance) you will be giving your students in the box below:

Learning Target(s)

2. Insert the task (product or performance) you will be giving your students in the box below:

Task (Product or Performance)

3. Study any existing rubrics or success criteria you might already have for this or a similar task as well as examples of student work. How might these inform the success criteria checklist you will create?
4. Review Clarify the Learning Journey at the Lesson Level: Analysis Worksheet, the second column.
5. Create a first-draft checklist, using the following format. (Note that you may find it helpful to do #6 in these directions first, actually trying out the task first before generating success criteria.)
 - Name the task followed by the word “include(s)” (use present tense), e.g., My equivalent fraction models include....
 - List individual attributes of a successful task, e.g.:
 - *Three models of fractions equal to $\frac{1}{2}$ using denominators other than 2*
 - *Three models of fractions equal to $\frac{1}{3}$ using denominators other than 3*
 - *Three models of fractions equal to $\frac{1}{4}$ using denominators other than 4*
 - *A label on each model with the name of the fraction it represents*
 - Note that pictures can also be used to illustrate what success looks like.

First-Draft Success Criteria

My _____

[task] include(s):



Details of Communication Plan

11. In your classrooms, communicate the success criteria (following the team meeting).
12. Collect and analyze the student work from your classroom, identifying which criteria were met and not yet met for each student and totaling the results. Bring samples of student work, especially those that were particularly interesting, to your next team meeting as well as your totals.
13. Reflect (at the next team meeting):
 - How well did students meet the success criteria?
 - In what ways might you refine the criteria? Communicate them more clearly?
 - Are there additional criteria you would now add to the list?
 - Were any of the criteria superfluous?
 - What exemplars can you use going forward?
14. Document the tested success criteria and communication plan for future use:

Tested Success Criteria

My _____ [task] include(s):

Revised Details of Communication Plan





Personal and Team Action Planning Form

Personal Action Plan

1. As a result of today's meeting, I discovered that I...
2. And I intend to...
3. Who is going to support me to achieve this and how?
4. What will I give up so I can do this?

Team Action Plan

Who	What	By When



Sharing Experiments Protocol

Purpose

For individual group members to share their experiments, reflect on their learning, and solicit input or assistance from group if desired. For the group to build its collective expertise by learning from each other's experiences. This kind of meeting follows an experiment that group members have tried in their classrooms.

Procedure

1. Ask group members to bring any relevant artifacts from their classroom experiment, e.g., a reflection they wrote about what they tried, student work, their learning target, materials used.
2. Remind the group of the importance of not judging each other's experiments.
3. Round-robin, in pairs, or with a three-step interview*, ask group members to respond to the following prompts:
 - What did I try?
 - What did I learn?
 - What surprised me?
 - What evidence do I have of impact on student learning?
 - What did I do that worked? How do I know?
 - What might I do differently next time?
 - What input would I like from my colleagues?
4. Debrief common themes or discoveries.

*Three-Step Interview

1. In groups of 4, person A interviews person B (on same side of table) while person C interviews person D.
2. Then switch so B interviews A and D interviews C.
3. Round-robin, each shares a highlight from their partner.



Criteria Analysis Protocol

Purpose

- To analyze student work in relation to pre-established success criteria, determining from the evidence in student work the degree to which each communicated criterion is met—does not yet meet, meets, or exceeds—and noting individual student misconceptions, gaps, errors, and insights
- To lead to effective and targeted FIRME action

Suited for Which Type of Data

- Any constructed-response item for which the success criteria have been identified and communicated to students (during or after the unit)

Materials

- Criteria Analysis Table: Success Criteria or Criteria Analysis Table: Rubric (depending on if using a list of success criteria or a rubric)
- Data-Driven Dialogue: Note-Catcher
- Student work to be analyzed (generally recommended to select work with a range of quality)

Process

Review and do task	Engage in Data-Driven Dialogue				Prepare to take FIRME action
	Phase 1: Predict	Phase 2: Go Visual	Phase 3: Observe	Phase 4: Infer/Question	

Review and Do Task

- Review relevant unit essentials, learning targets, success criteria, and assessment items.
- Do the task with your team, share solutions and strategies, and consider how students might have approached the task.
- Brainstorm what students would need to know and be able to do to complete the task successfully.

Phase 1: Predict

- How do you think students performed?
- What criteria/criterion do you think they will do well on?
- What criteria/criterion do you think they will have trouble with?
- What errors or confusions do you anticipate students will make/have?
- Based on what assumptions?

Phase 2: Go Visual

- Use either the Criteria Analysis Table: Success Criteria or the Criteria Analysis Table: Rubric, illustrated below.
- Examine each piece of work, determining to what extent each student meets each criterion.
- Input the data into the table.

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Data-Driven Dialogue: Note-Catcher

Predictions				
Observations		Inferences/Questions		
Preparing to Take FIRME Action <i>What will be the focus of our FIRME action? Check all that apply. What actions will we take?</i>				
<input type="checkbox"/> Move On (no FIRME action needed)				
<input type="checkbox"/> Feedback	<input type="checkbox"/> Investigation	<input type="checkbox"/> Reteaching and Re-engaging	<input type="checkbox"/> Regrouping	<input type="checkbox"/> Extension
<i>How will we assess impact?</i>				



Grade 6 Mathematics: Question 10

Grade: 6

Subject: Mathematics

Learning Target: We are learning how to write and evaluate expressions that represent real-world situations.

Assessment Task:

Lucinda earns \$20 each week. She spends \$5 each week and saves the rest. The table below shows the total amount that she saved at the end of each week for 4 weeks.

Lucinda's Savings at the End of Each Week

Week	1	2	3	4
Total Amount Saved	\$15	\$30	\$45	\$60

Lucinda continues to save at the same rate.

- What will be Lucinda's total amount saved at the end of 7 weeks? Show or explain how you got your answer.
- Use numbers, words, or symbols to write an expression that represents Lucinda's total amount saved at the end of n weeks.
- How many weeks will it take for Lucinda to save \$300? Show or explain how you got your answer.

Criteria for Success: The response includes:

- Accurate computation in part a
- An explanation of how you got the answer to part a in either words or mathematical representations
- A mathematically correct expression for solving the problem for n weeks
- Accurate computation in part c
- An explanation for how you got the answer to part c in either words or mathematical expressions

Related Standards: Common Core Grade 6

Expressions and Equations 6.EE

Use variables to represent numbers and write expressions when solving a real-world mathematical problem

The Number System 6.NS

Compute fluently with multi-digit numbers

Sources: Task adapted from Massachusetts Department of Elementary and Secondary Education's Comprehensive Assessment System (MCAS, 2007); Council of Chief State School Officers, *Common Core State Standards*, 2010.

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Grade 6 Mathematics
Question 10 - Sample A

a. Lucinda's total amount saved at the end of 7 weeks would be \$105. I got my answer by multiplying \$15 by 7 weeks.

b. $\$15 \cdot n = t$

n = number of weeks

t = total amount saved

c. It will take Lucinda 20 weeks to save \$300. I got my answer by dividing \$300 by \$15.

Grade 6 Mathematics
Question 10 - Sample B

A. $105, 15 \cdot 7.$

B. $15 \cdot N.$

C. 20 weeks, $300 \div 15 = 20.$

(cont. next page)



Grade 6 Mathematics
Question 10 - Sample C

(a) $\text{Week} \times \$ = \text{total amount saved}$
 $7 \times \$15 = \105

(b) $(\text{Week})(n) = \text{total amount saved}$

(c)
$$\begin{array}{r} 020 \\ 15 \overline{)300} \\ \underline{-30} \\ 00 \end{array} \quad (20 \text{ weeks})$$

Grade 6 Mathematics
Question 10 - Sample D

- A. Lucinda's total amount would be \$105 saved by the end of week seven.
- B. $N + 15$
- C. It would take week 20 to reach \$300.

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Grade 6 Mathematics
Question 10 - Sample E

a) I added $60 + 15$ to get 75, $75 + 15$ to get 90 and $90 + 15$ to get 105
Lucinda saved \$105.

b) My formula is $100 + 5$.

c) It will take her 14 weeks to save 300.00 because I added $7+7$.



Grade 6 Mathematics
Question 10 - Sample F

Week	TA	
4	\$60	-5=
5	\$55	-5=
6	\$50	-5=
7	\$50 45	— Answer

B) $T \times N = N$

—

Total - Number = Number

$50 - 5 = 45$

C) It worth because she always spend 5



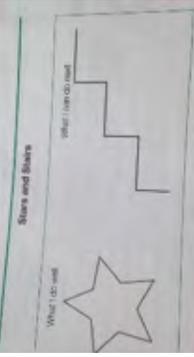
Technique Tracker: Feedback

Technique	Description	Notes	How might this be adapted to <u>involve peer learning and/or peer assessment</u> ?	How might this be adapted to <u>involve self-assessment and/or self-monitoring</u> ?
Are We There Yet?	The teacher provides a revision guide (checklist or rubric) to be used for an assignment. Students attach the revision guide each time they submit their work, and each time the teacher reviews the work, s/he uses the guide to indicate what things don't need revision and one thing to work on next. After students complete a revision, they sign off on what they revised so the teacher can look specifically at that part of the work and either assign a final grade or move on to the next item for revision.	The revision guides can also be saved for evidence of student thinking as they revise, as well as documenting the teacher's efforts to provide feedback.		
Comment-Only Marking*	The teacher provides written (or sometimes oral) feedback on student work. Students have support and time to make revisions.	Comments, which can be in the form of a question, should be specific to the learning target and success criteria outlined for the work, and they should be carefully designed to promote thinking and provide a "recipe for action" on how to improve. They shouldn't do the work for the student.		

Find-and-Circle Errors*	The teacher tells how many errors there are in a piece of work but does not tell the student exactly where or what they are. Students must find and correct the errors.	This is a modification of comment-only marking that can be used as appropriate for certain students or activities. It works especially well for promoting deep thinking and reflection.	
Formative Grading*	Students are continuously revising and resubmitting their work, without penalty. A grade is given only after the student has revised at least once and sometimes more often.	One option for grading is to allocate 50% of the points to the first submission and 50% to the improvement shown in the work after responding to the feedback	
Group Feedback	This can be done with the whole class or in small groups. When returning a quiz or assignment, students review their assignment/quiz as the teacher goes over each part, paying special attention to patterns of results of strengths and weaknesses that the teacher saw in the data. Students review their own work and make notes to use to revise the assignment or re-take a similar quiz.	This is also a very effective way to teach students how to use feedback to revise their work. It is important to have a structure in place for students to improve or replace their original “score,” if one is given.	
On-the-Fly Feedback	This type of feedback is often given to individual students as the teacher circulates, watching students work, and observes a need. It is often best when the teacher asks a student to describe what s/he is doing, so the teacher can	Many teachers also use this technique to stop briefly and point out things a student is doing well. These private conversations can help to change the culture in such a way that students don’t assume that something is wrong if the teacher stops to talk and discuss the work with individual students.	





	identify where the student is getting stuck. Then a focused conversation to help the student get unstuck can occur in private.			
Rubric as a Reference*	The teacher refers to the rubric (success criteria) that has been shared. This helps students to identify where they are and “see” what it would take to move to the next level.	The teacher may use the whole rubric or just one or two parts. Some teachers refer to the rubric in their comments, others use a copy of the rubric as a cover page for the work and write feedback on the cover page.		
Stars and Stairs	Teachers can use the form illustrated to the right to describe what students did well in the star and what needs improvement in the stairs. Next steps should provide as little guidance as is needed so students do the thinking.	 <p><i>Source: Chappuis, 2015, p. 115</i></p>		
Three-Minute Conference	Teachers can provide feedback to students individually or in small groups in a short time frame by asking students to first self-assess. Then the teacher shares his/her feedback. And, finally, the students summarize the feedback (in written form if possible). This keeps them on their toes during the conference.	This is a way to provide oral feedback in a tight time frame by actively engaging the students in self-assessment first and summarizing after.		

<p>Two-Color Highlighting</p>	<p>Students mark with a yellow highlighter the phrases on a scoring rubric that they think describes their work. The teacher then marks what s/he thinks describes the work with a blue highlighter. Phrases that are green (the student's yellow highlighting covered by the teacher's blue highlighting of the same wording) represent agreement between the teacher and student. Blue and yellow phrases represent disagreement.</p>	<p>Teachers can add additional comments when there is significant disagreement. This is a quick way to give students feedback and encourage students to self-assess.</p>	
<p>Two Stars and a Wish</p>	<p>The teacher provides two positive comments about a student's work (Stars) and one thing s/he wishes the student would do to improve the work (Wish).</p>	<p>This helps to keep feedback calibrated (not too overwhelming). Many teachers will make a form that can be stapled to papers that they can quickly fill out and then return for the student to revise.</p>  <p><i>Source: www.sparklebox.co.uk/thumbs161-165/sb165-two-stars-and-a-wish-target-sheets.html#. VTprydF_k5s</i></p>	
<p>* Techniques adapted from: Chappuis, J. <i>Seven Strategies of Assessment for Learning</i> (2nd ed.). Portland, OR: Pearson Assessment Training Institute. William, D. <i>Embedded Formative Assessment</i>. (2011). Bloomington, IN: Solution Tree Press.</p>			

Success Conditions for High-Impact Teacher Teams

We are not so naive as to think that if we just implement the elements of the high-impact teams approach, teacher practice will improve, teams and coaches will function at high levels, and student learning will improve, like magic. We know that high-impact teams require a system that is organized to support continuous professional learning. A supportive environment for high-impact teams or any other significant professional development initiative is one in which the district leaders put a premium on risk-taking, growth, and professional culture rather than on compliance. Similarly, principals create a learning culture in their buildings by fostering teacher leadership, collaboration, and experimentation. A partial list of success conditions for high-impact teams appears below. Add your own to the list!

District Leadership

- Make clear the alignment of high-impact teams and coaching with district goals
- Make high-impact teams a priority focus for the district; devote time and energy to manage and supervise the project; protect participants from innovation overload
- Participate actively in Coaching High-Impact Teacher Teams planning and professional development
- Embrace a growth mindset and cultural proficiency
- Know what effective teams look like and sound like

Principals

- Protect time for teams (often, but not always teachers who teach same content and/or grade level*) to meet together
- Know what effective teams look like and sound like
- Participate actively in Coaching High-Impact Teacher Teams professional development sessions
- Embrace a growth mindset and cultural proficiency
- Understand high-impact teams and the role of coaches and communicate their value
- Meet regularly with coaches

Teacher Leaders or Coaches

- Are respected by their colleagues
- Embrace a growth mindset and cultural proficiency
- Have potential to excel at facilitating adult learning
- Have time and recognized authority to facilitate teacher teams (see Time below)
- Are devoted to continuous improvement of their own practice
- Participate actively in all Coaching High-Impact Teacher Teams professional development sessions

Time

- Protect time for teams (often, but not always teachers who teach same content and/or grade level*) to meet together
 - Meet a minimum of 45 minutes/week
 - Focus team time on high-impact activities

*High-impact teacher teams can also be vertical teams, study groups, department teams, or other teams that share a common focus on improving their practice and their students' learning.



- Coaches
 - Need time to prepare for and facilitate team meetings
 - Need time to collaborate with other coaches in the district

School and District Culture

- Is characterized by risk-taking, trust, candor, collaboration, accountability, a growth mindset, and commitment to cultural proficiency

Data Access

- Timely access to useful data tied to standards and curriculum, reported at the item level, and aggregated by common grade levels or courses
- Value placed on daily classroom formative assessment

Professional Learning

- Ongoing opportunities provided for administrators, teachers, and coaches to strengthen expertise in the knowledge and skills required for effective teamwork
- Opportunities provided for coaches to meet and learn together





STRONG TEAMS, STRONG RESULTS

FORMATIVE ASSESSMENT HELPS
TEACHER TEAMS STRENGTHEN EQUITY

BY NANCY LOVE AND MICHELLE CROWELL

At a diverse elementary school, a grade-level planning team is meeting about an upcoming lesson and creating an exit ticket, a brief formative assessment tool to check for students’

understanding. School administrators have recently asked special educators and language development specialists to become part of the collaborative team.

As the group begins working on the exit ticket, one special education teacher expresses concern: “My students

couldn’t do that. It’s too hard for them. They will get discouraged.”

Her teammate pushes back gently, “I think with modifications this assessment can work for all our kids. Let’s see if we can modify the task to make it more accessible to your

Teams can strengthen courage, conviction, and cultural proficiency to make progress toward equity, one team meeting at a time.

students. We want all our students to hit the standard.”

Another teacher chimes in, “The modifications might work better for our English language learners, too.”

The team creates two versions of the assessment, and teachers choose which version to give to their own students. The following week, they analyze the results together and plan for reteaching and extension based on the results.

The special education teachers are elated to discover how well their students performed. “We just weren’t expecting enough of them,” one teacher reflected. “Our special education students are excited, too. They know they’re doing the same work as their classmates.”

ROLE OF TEACHER TEAMS

Sitting in our schools right now is one of the most powerful levers we have for deepening equity: teacher teams focused on developing collective expertise in high-leverage, equity-promoting practices.

One conversation at a time, teams like the one in the vignette above, a composite of teams we have observed over time, chip away at low expectations, racism, and cultural biases that have marginalized special

education students, English language learners, students of color, and others who have not traditionally been served well by schools.

While many schools have a general orientation toward equity and “all students achieving,” those values come to life when team members confront specific limiting beliefs about individual students in the context of their work together on formative assessment. Working together in this way, teams can strengthen courage, conviction, and cultural proficiency to make progress toward equity, one team meeting at a time.

This was the approach of the Madeline English School, a culturally and linguistically diverse K-8 school with 825 students in Everett, Massachusetts. For years, standardized test results at the school showed below-average growth. In particular, special education students’ and English language learners’ achievement was flat. Teachers examined assessment data, but it was often too little too late, occurring after the students who took the tests had moved on.

Then, in spring 2017, the school launched a partnership with Research for Better Teaching to implement data coaching, a yearlong professional

learning program sponsored by the Five District Partnership. The partnership is a network of urban districts in greater Boston, funded by the Massachusetts Network Initiative grant from New Venture Fund.

Over the course of a year, the school became committed to an equity-based approach to formative assessment and data-driven instruction.

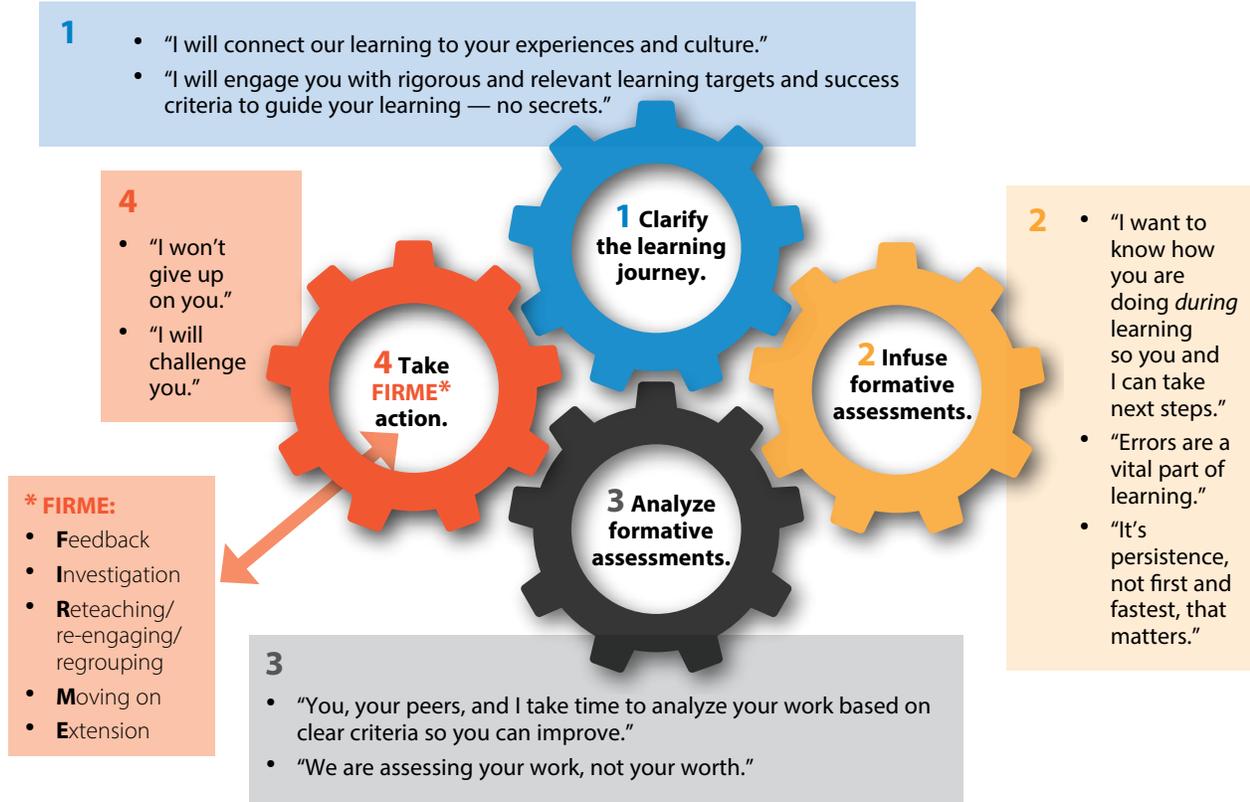
Common planning time team meetings transformed from unproductive conversations to focused analysis of common exit tickets, careful planning for immediate next steps for reteaching and extension, and shared accountability for taking action in the classroom. The divide between special and general educators dissolved as teachers became collaborators in holding all students to high standards.

Special educators and language development specialists became regular contributors at team meetings, sharing strategies for reteaching, modifying standards-based exit tickets aligned with general education assessments, and analyzing student formative assessment results with their colleagues.

Mindsets shifted as teachers challenged each other and changed practices, and the school began to see positive impacts on students. On the



THE FORMATIVE ASSESSMENT FOR RESULTS CYCLE WITH HIGH-EXPECTATIONS MESSAGES



most recent diagnostic assessments, Grade 7 special education students’ growth spurred, exceeding the targeted growth expectations by an average of 160% in reading and 44% in mathematics from the middle to the end of the academic year. Grade 4 special education students and English language learners exceeded targets by 21% in reading and 13% in mathematics.

The school’s Five District Partnership Benchmark Assessments showed improvements in all grades for all students, with grade 7 making the greatest gains of almost 20 percentage points.

“The special education students are really benefitting from our team work,” special educator Christine Downing said. “Before, they had this perception that they were dumb. Now they know that we are going to push them and that

they can push themselves.”

What alchemy made this change happen? Four key ingredients were:

1. Professional learning for team leaders and administrators that is based in a practical framework with protocols for team learning and equity;
2. Thoughtful rollout;
3. A regular structure and schedule for team meetings; and
4. Consistent follow-through by school leaders.

A PROFESSIONAL LEARNING FRAMEWORK FOR EQUITY

Data coaching is a team-based approach to helping schools use formative assessment data to drive short cycles of improvement. It is grounded in the knowledge that strengthening cultural proficiency is essential for making this process work.

“We have learned through our experience in the Using Data Process that issues of race/ethnicity, class, culture, gender, and other differences ... cannot and ... should not be avoided when examining data and engaging in collaborative inquiry. Our responses and reactions to these differences deeply affect how we interpret data and have a profound effect on student learning,” say the authors of *The Data Coach’s Guide to Improving Learning for All Students* (Love, Stiles, Mundry, & DiRanna, 2008, p. 92.)

The focus of professional learning in data coaching is on the Formative Assessment for Results Cycle (see diagram above), a framework to guide teacher teams in developing collective expertise in classroom formative assessment and the equity-promoting practices and messages that support its effective use.



TAKING FIRME ACTION		
Action in response to formative assessment	What it is	Why it matters for equity
FEEDBACK	Provide objective, descriptive information about students' performance relative to standards and success criteria.	Teams focused on equity learn about both effective practice and "wise feedback." "Wise feedback" (Cohen & Steele, 2002) helps combat stereotypes of intellectual inferiority among students of color by combining honest, direct feedback linked to standards alongside assurances that the student is capable and can improve performance.
INVESTIGATION	Examine student thinking in daily diagnostic questions and discussions.	In the words of math teacher Jessica Salem, "Now we ask our students to explain their thinking. Then I get to understand their thought process. They always have a reason. Once we understand, we can help them correct errors."
RETEACHING, RE-ENGAGING, REGROUPING	Use different approaches for students who need another opportunity to master a learning target.	Students with different learning needs and backgrounds do not all learn in the same way. Teams committed to equity collaborate to expand their teaching and grouping repertoires and make the best match for individual students.
MOVING ON	A legitimate step after the previous step when most, even if not all, students have achieved proficiency.	Equity means ensuring all students have access to a rigorous curriculum so the curriculum does not grind to a halt for one or two students. However, if some students have not mastered a concept or skill, it is important to have a plan for how they will do so.
EXTENSION	Provide additional challenges to students who master learning targets before others.	Extension ensures that all students are continually learning and stretching. "Now our students who reach a standard before others know they are going to be challenged," said reading coach Mary Beth Benedetto.

The cycle includes four steps. Embedded in each are high-expectations messages that teachers continually communicate to students both through their words and their actions so that students can internalize the growth mindset and their teacher's belief that they can succeed.

When teachers and students regularly experience this cycle and these messages, they chip away at limiting beliefs such as "mistakes are a sign of weakness," "speed counts," and "only the few bright can achieve at high levels" (Saphier, Haley-Speca, & Gower, 2018, p. 410).

Each step of the cycle requires that teachers are curious about and continually deepening their understanding of each of their students' cultures, experiences, and thinking while monitoring their own biases and assumptions.

Embedded in each step are high-expectations messages that teachers continually communicate to students.

The steps are:

1. Clarify the learning journey.

In this step, teachers focus and motivate learning by communicating specific success criteria to their students. Success criteria level the playing field by making explicit what success looks like through checklists, rubrics, and exemplars, so students don't have to guess what's on the teacher's mind — a phenomenon that tends to privilege students whose backgrounds are similar to teachers'. According to John Hattie's (2017) research, this kind of teacher clarity has a .75 effect size on student

outcomes. (For comparison, .4 represents a typical year of student growth.)

Also in this step, teachers gather information about students and their backgrounds through surveys, interviews, and one-on-one relationships with individual students so they can identify culturally relevant examples and metaphors and connect them to the content being taught.

2. Infuse formative assessments.

In this step, teachers weave formative assessments throughout instruction, using carefully crafted diagnostic questions that align with learning targets, assess success criteria, and surface gaps or errors in student thinking.

When teachers and students use assessments to make timely adjustments in teaching and learning tactics, they can effectively double the speed of



learning (Black & Wiliam, 2009). These assessments can take the form of quick quizzes, exit tickets, responses to writing prompts, or entries in science or math journals.

In grade-level teams, teachers work together to craft common diagnostic questions, road-test them with students, and bank those that worked well for future use. In vertical teams, assessments are not common but align with learning progressions within and between grades and thus are relevant for all teachers on the team.

In this step, teachers are mindful of creating diagnostic questions that are as free from racial, cultural, and socioeconomic biases (Popham, 2017) as possible.

3. Analyze formative assessments.

This step is about analyzing results frequently (ideally, daily or weekly). Individually, teachers might do this on the fly, quickly sorting student work to determine who’s got it and who doesn’t, and regrouping or reteaching accordingly. In a team, teachers use protocols to take a deeper dive into student work to determine whether the success criteria are met or not and plan for next instructional steps.

Understanding students’ cultures comes into play in making accurate interpretations of the meaning of the data.

For example, one teacher team analyzed results of a mathematics assessment where students were asked to estimate the answer. The team was surprised to discover that, when disaggregating data by race, Asian students performed worse than other racial groups.

As they dug deeper, they discovered that these students had estimation skills, but they also had a cultural bias against estimating and favored computing accurately. Without honoring and addressing these students’ assumptions,

teachers were not likely to help them improve.

4. Take FIRME action.

FIRME stands for five actions teachers can take in response to formative assessment results to improve instruction in ways that meet students’ needs. (See table on p. 37 for more information.)

Together, the four steps of the Formative Assessment for Results Cycle and their embedded high-expectations messages achieve what John Hattie (2012) refers to as “visible learning” or “students’ assessment capabilities” (p. 141), where students are clear about goals and success criteria, self-assess their progress, and take next steps in their learning, thus moving from dependent to independent, self-directed learners.

While important for all students, these practices are a vital for marginalized learners, who, Zaretta Hammond argues, need an ally to help “dependent learners begin and stay on the arduous path toward independent learners” (Hammond, 2015, p. 89).

STRUCTURES AND SUPPORT FOR SUCCESS

At Madeline English School, this work is supported by three additional key elements: thoughtful rollout, structures and schedules, and leadership team follow-through.

Thoughtful rollout. After engaging in learning about the Formative Assessment for Results Cycle, the school team needed to contextualize the professional learning to the school and, as one member said, focus on “what works for our building.” They prioritized workshop content they would deliver to the whole staff.

The math and reading coaches and assistant principal then developed presentations in four chosen topic areas and delivered them starting in October during each grade-level

common planning time meeting. This was so successful that, by January, teachers at all grade levels confidently facilitated common planning time meetings themselves and followed data coaching protocols, with guidance and expertise provided by the reading and mathematics coaches.

Structures and schedules. For these efforts to work, teachers need dedicated and regular meeting times. Teachers meet by grade level once (grades K-2) or twice (grades 3-8) in an eight-day cycle and are joined by special educators, language development specialists, interventionists, and coaches. In grades 7-8, teachers meet in vertical teams by content area.

Leadership team follow-through. The leadership team went beyond creating structure and meeting schedules. They followed through with regular attendance at team meetings, classroom observations, and review of team documentation.

For example, math coach Howard Tuttmann, reading coach Mary Beth Benedetto, and assistant principal Michelle Crowell visited classrooms daily to follow up on topics discussed during common planning time and celebrate successes of individual teachers and students.

In addition, all teacher teams shared formative assessments and results with Crowell and coaches through Google Classroom and Google Forms. This helped the leadership team track progress and teachers stay accountable to each other. Teachers appreciated the structure, schedule, and follow-up. As Tiffany Boakye, 4th-grade teacher, said, “Our administrators are the backbone that has made this successful. ... Because they are so passionate about it, they made us passionate about it.”

A CLIMATE OF HIGH ACHIEVEMENT

At Madeline English School,

passion and persistence resulted in a climate of high achievement for all that permeates the school and is accompanied by encouraging test results, especially for special education students and English language learners.

With the right combination of professional learning on formative assessment practices and the structures and follow-through to support those practices, teacher teams are showing it is possible to create equity breakthroughs in as little as one year.

As reading coach Mary Beth Benedetto puts it, “The impact of our collaboration on equity has been huge. It used to be special education teachers and students felt isolated. Now all the teachers are thinking about all of our kids.”

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