Coaching Teams to Use Formative Assessment for Results

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Coaching Teams to Use Formative Asssessment for Results
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* **F**eedback
Investigation
Reteaching/Re-engaging/Regrouping
Moving On
Extension

Formative Assessment for Results (FAR) Cycle with Detail

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STEP 4
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- Feedback
- Investigation
- Reteaching/Re-engaging/Regrouping
- Moving On
- Extension

Framework for Coaching Teams to Use Formative Assessment for Results

Unlocking the power of formative assessment to increase student achievement and motivation

STEP:

What step in the FAR cycle is our focus?

PURPOSE:

What is the purpose of the meeting?

☐ Learning together

☐ Taking action

☐ Reflecting

ACTIVITY:

What activity will we use to achieve our purpose?

IMPACT:

How will we know we have…

achieved purpose?

improved practice?

improved learning?
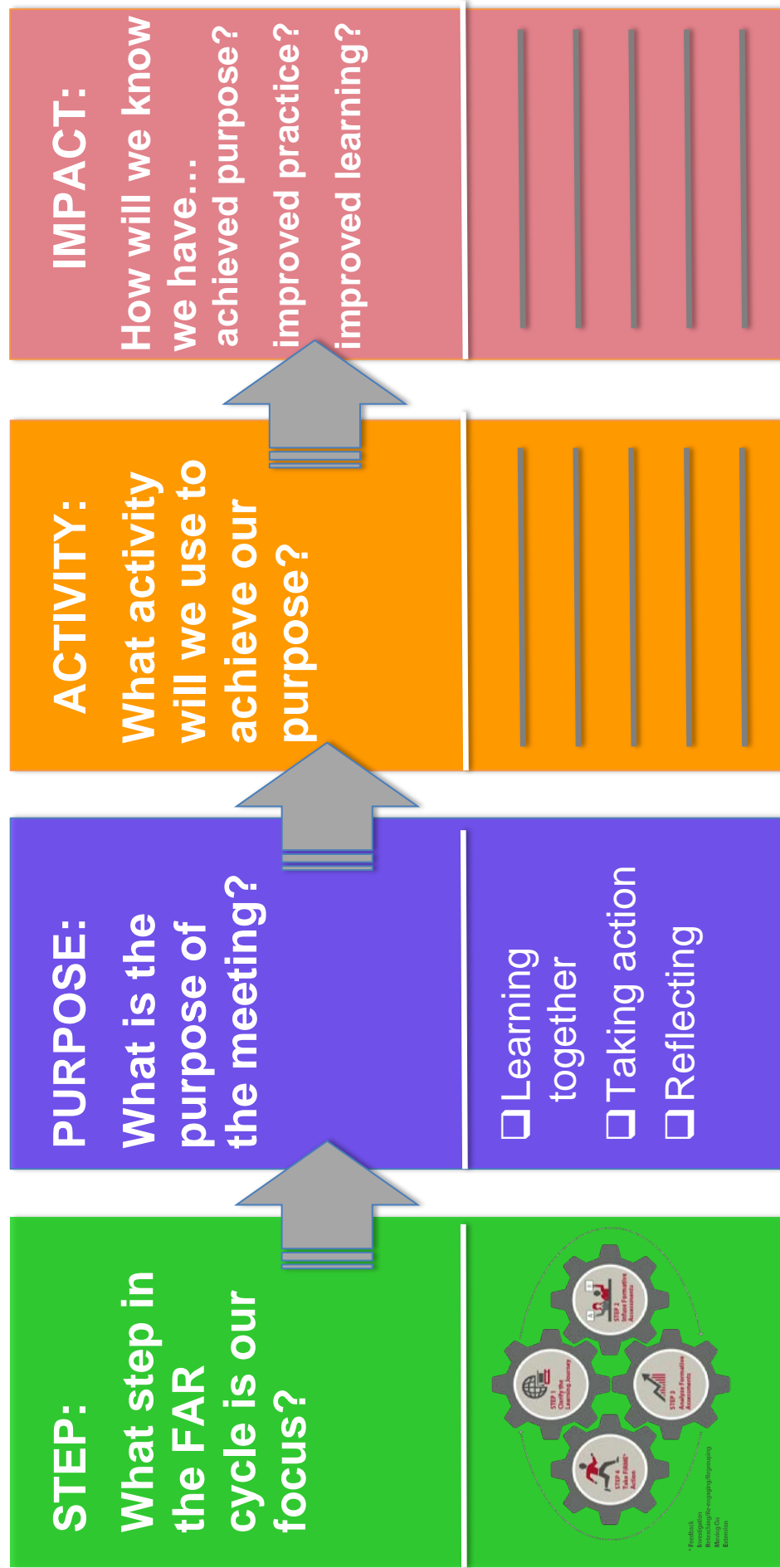
Creating a Classroom Diagnostic Question Item Bank

Below are the steps to take to create a diagnostic question item bank. The template on the following pages can be used to go through these steps:

1. List learning targets from an upcoming unit of instruction in the first column.

2. For each learning target, create a list of typical student mistakes or misconceptions and enter them in the second column. Draw on your pre-assessment data, paying particular attention to questions for which more than 50% of students answered incorrectly and the particular incorrect responses that were frequently chosen.

3. In column three, insert a question (typically multiple choice so that it can be used as a hinge-point if necessary) that assesses student understanding of the learning target and surfaces misconceptions. You may find one in existing unit assessments, questions in textbooks, or other available item banks. If you don't find a suitable item, create your own.

4. Include all answer choices for selected-response items in column four, underlining the correct response(s). Incorrect responses should provide insight into student misconceptions, so before entering the answer choices, analyze each one to be sure that it will reveal the misconceptions you want to surface. Revise as necessary.

5. In column five, indicate which misconception is revealed by each incorrect answer.

4

Classroom Diagnostic Question Item Bank				
Grade/Class: _____ Unit: _____				
Lesson learning target	Mistakes made or misconceptions held about learning target	Question that assesses understanding of learning target	All answer choices, analyzed and revised as necessary (underline correct answer[s])	Misconceptions revealed by each incorrect choice

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.

Criteria Analysis Table: Success Criteria Checklist

Learning Target(s): _____

Formative Assessment: _____

- *Insert your success criteria for the work being analyzed under the criterion headers.*
- *For each student, insert ✓ for criterion met, – for not yet, and ✓+ for exceeds (optional) for each criterion.*
- *Note specific errors or confusions in the final column.*
- *Summarize data in the final two rows.*

Students	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Notes/Errors
Summary Data						
# & % Met						
# & % Not Yet Met						
# & % Exceeds						

Criteria Analysis Table: Rubric

- *Insert your criteria from the rubric under the criterion headers.*
- *For each student, insert his/her rubric score for each criterion.*
- *Note specific errors or confusions in the final column.*
- *Summarize data in the final four rows.*

Students	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Notes/Errors
Summary Data						
# and % Rubric Score = 1						
# and % Rubric Score = 2						
# and % Rubric Score = 3						
# and % Rubric Score = 4						

Phase 3: Observe

- What patterns do you observe across several pieces of work? Examine the table by columns. Examine the summary data for each criterion.
- What do you notice about individual students? Examine the table by row.
- What specific criteria are our students' strengths? Which pose difficulties for them?
- Identify the criteria for which there are a significant number of not-yet performances or low rubric scores.

Phase 4: Infer/Question

- What possible explanations do we have for the patterns we are seeing?
- What criteria are met? On which criteria did students score high on the rubric? Why?
- What criteria are not yet met? On which rubric criteria did students score low? Why? What might students have been thinking? What knowledge and skills seem to be missing?
- What errors are students making? What confusions might students have? Why? What might students have been thinking?
- How can we find out which of our hypotheses is right?
- What questions do we have?
- What additional data might we explore to verify our explanations?

Prepare to Take FIRME Action

- Identify priorities for FIRME action (e.g., "We need to focus on feedback or reteaching").
- Transition to Step 4: Take FIRME Action.

Criteria Analysis Table: Success Criteria Checklist

Learning Target(s): _____

Formative Assessment: _____

- *Insert your success criteria for the work being analyzed under the criterion headers.*
- *For each student, insert ✔ for criterion met, – for not yet, and ✔+ for exceeds (optional) for each criterion.*
- *Note specific errors or confusions in the final column.*
- *Summarize data in the final two or three rows, as applicable.*

Students	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Notes/Errors
Summary Data						
# & % Met						
# & % Not Yet Met						
# & % Exceeds						

RBT

Criteria Analysis Table: Rubric

Learning Target(s): _____

Formative Assessment: _____

- *Insert your criteria from the rubric under the criterion headers.*
- *For each student, insert his/her rubric score for each criterion.*
- *Note specific errors or confusions in the final column.*
- *Summarize data in the final four rows.*

Students	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Notes/Errors
Summary Data						
# and % Rubric Score = 1						
# and % Rubric Score = 2						
# and % Rubric Score = 3						
# and % Rubric Score = 4						

Data-Driven Dialogue: Note-Catcher

Predictions	

Observations	Inferences/Questions

Preparing to Take FIRME Action
What will be the focus of our FIRME action? Check all that apply. What actions will we take?
❑Move On (no FIRME action needed)

❑Feedback	❑Investigation	❑Reteaching and Re-engaging	❑Regrouping	❑Extension

How will we assess impact?

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.

a. What will be Lucinda's total amount saved at the end of 7 weeks? Show or explain how you got your answer.

b. Use numbers, words, or symbols to write an expression that represents Lucinda's total amount saved at the end of n weeks.

c. 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:
1. Accurate computation in part a
2. An explanation of how you got the answer to part a in either words or mathematical representations
3. A mathematically correct expression for solving the problem for n weeks
4. Accurate computation in part c
5. An explanation for how you got the answer to part c in either words or mathematical expressions

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Related Standards: Common Core Grade 6

Expressions and Equations 6.EE
Use variables to represent numbers and write expressions when solving a real-word 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.

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 • 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.

A. $105, 15·7.

B. 15·N.

C. 20 weeks, 300/15 = 20.

Grade 6 Mathematics
Question 10 - Sample C

ⓐ Week x $ = total amount saved
7 x $15 = $105

ⓑ (Week)(n) = total amount saved

ⓒ
```
    020
15)300    (20 weeks)
   -30
    00
```

Grade 6 Mathematics
Question 10 - Sample D

A. Lurinda'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.

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.

A) week | T A
  4 | $60 | −5 =
  5 | $55 | −5 =
  6 | $50 | −5 =
  7 | $45 ⟵ Answer

B) T × N = N

Total − Number = Number

50 − 5 = 45

C) It worth because she always spend 5

Taking FIRME Action: Choice Points

Feedback Choice Points

Choice Points	Questions to Consider	Options to Consider
Timing	☐ Are the students still mindful of the learning target? ☐ Is there still time for them to act on your feedback?	☐ **Immediate**: For basic right/wrong questions ☐ **As soon as feasible**: For more complex products like papers or projects ☐ **Cumulative**: After observing a pattern of errors or misconceptions
Quantity/ Quality	☐ How much feedback can the student absorb and act upon at once? ☐ If there are multiple areas needing improvement in the work, can they be prioritized to make the feedback manageable for the student? ☐ Is the feedback specific enough to make the student aware of how his/her work compares to the criteria? ☐ Will the feedback help the student to know what to do to improve the work?	Your decisions about quantity and quality might be different for different students and different assignments: **Quantity**: ☐ Selective criteria—smaller chunks ☐ All criteria **Quality** (make sure that your feedback meets all of the characteristics of effective feedback): ☐ Goal-referenced ☐ Concrete and specific ☐ Nonjudgmental and supported by evidence in the work ☐ Timely ☐ Scaffolded

	Questions	Descriptions
Mode	☐ Which mode of feedback will best support the student in being able to understand and act on it? ☐ Will the student be able to read and understand written feedback? ☐ Will students need to refer back to the feedback in order to make changes? ☐ Is there a need or a way to model what the feedback is focusing on? ☐ Which form of feedback might best match the student's learning style? ☐ Are there opportunities to engage students in giving feedback to each other? ☐ If peers will be involved in giving feedback, what do I need to do to prepare those giving a receiving feedback?	☐ **Written**: Students can more easily refer back to it as they work because it is more permanent. Can be written in key places directly on student work, or on a rubric or assignment cover sheet. Can be checkmarks on a list of criteria, indicating criteria the student has met; no checkmark signals not yet. ☐ **Oral**: Works best for very young students or those who may likely not read what is written. Also good when the teacher has so much to say that it may be intimidating if written. This is a good chance to let the student decide which feedback he/she will act on. Easy to give in smaller doses as a complement to written feedback, as students make revisions. ☐ **Demonstration/modeling**: Anything that involves a physical skill lends itself well to demonstration (e.g., holding an instrument or using a tool). It is also a good way to "show" a student how to use higher cognitive skills such as justifying an answer in mathematics. Students will be more likely to compare their own work to what you model if your demonstration is coupled with oral feedback.
Audience	☐ What do my students need feedback about? ☐ Do I see a pattern of similar mistakes across my class? ☐ Are there small groups of students who would benefit from getting the same feedback?	☐ **Individual**: Works best when students need specific feedback that others may not need or if you know that a student may be embarrassed by it. If your classroom climate is still developing an acceptance of critiquing, this may be the best place to start. This also has the added benefit of letting the student know that the teacher has reviewed and thought carefully about his/her work and values and cares about his/her progress. ☐ **Small group**: When several students can benefit from hearing the same feedback, it can be a good time for pulling them together in a flexible group and providing a "mini-lesson." When delivered well, small-group feedback can in many cases lead to students feeling less alone in their confusions and benefitting from learning to discuss them with their peers. ☐ **Whole group**: There are some occasions when the whole group needs to hear the same thing. This is a good time to begin a lesson with feedback from the previous lesson (or from exit tickets). Be very careful that it is relevant to all; it can turn off students who know they don't need it, confuse students who aren't sure if they need it, and often be easily ignored by the ones you are intending to reach.

Investigation Choice Points

Choice Points	Questions to Consider	Techniques
Identify Student Misconceptions	☐ What evidence do I have about what misconceptions/confusions exist for my students?	☐ Provide feedback and see how students react. If they are able to improve based on the feedback, your assumption about their error is on target. If not, you can probe further.
	☐ Do I feel confident that my assessment provided accurate results?	☐ Ask students to explain their thinking.
	☐ Are there any students whom I feel I should double-check?	☐ Give students a similar problem, task, or diagnostic question and see how they perform.
	☐ Do I have time to dig deeper or shall I just try a fix and see if it works?	☐ Give the original problem or task back to them and ask them to correct their mistakes.
		☐ Share an example of student work with the whole class and ask the students to identify the error.
Verify Causes of Student Error	☐ Have I separated student mistakes (not rooted in a misunderstanding, e.g., carelessness) from actual errors in thinking?	☐ Engage in root-cause questioning with your colleagues.
		☐ Study the literature on common misconceptions or confusions students have about specific concepts.
	☐ Do I have concrete evidence about what is causing the various errors I am seeing in student work?	☐ Keep a record as a team of student errors and misconceptions and refer back to them when stumped (see Creating a Diagnostic Question Item Bank).
	☐ What other data or misconception research could I collect/consult to know for sure or to get more insight into certain student errors?	☐ Observe students as they are working or listen in on their conversations.

Regrouping Choice Points

Choice Points	Questions to Consider	Options to Consider	Techniques
Grouping Method	How were students grouped during the initial instruction? How could a different grouping structure re-engage students in a different way? How many students need reteaching and extension of the same learning target, success criteria, or misconception?	☐ Performance level ☐ Instructional need (i.e., common misconception, not-yet success criteria or learning target) ☐ Interest ☐ Learning modality (learning style)	☐ Fishbowl ☐ Flexible grouping ☐ Independent study ☐ Jigsaw grouping ☐ Learning centers ☐ Learning contracts ☐ Literature circles ☐ Numbered heads together ☐ RAFT strategy ☐ Socratic seminar ☐ Structured groups ☐ Think(Write)-pair-share ☐ Tiered activities ☐ Turn to your partner (TTYP)
Group Size	How many different learning targets, success criteria, or misconceptions do students need retaught or extended? How much variation is there in the degree of guidance and support that students need?	☐ Whole class ☐ Small group ☐ Pairs ☐ Individual	
Group Composition	What type of further investigation is needed? How many students need further investigation? Are the areas of further investigation shared or disparate?	☐ Heterogeneous ☐ Homogeneous	
Group Context		☐ Intra-classroom ☐ Inter-classroom (same grade or course) ☐ Inter-classroom (mixed grades)	

Reteaching, Extension, and Re-Engaging Choice Points

Choice Points	Description	Questions to Consider	Techniques
Presentation, Explanatory Devices, and Source Materials	☐ The presentation tools or materials used to explain the content, skill, or concept	☐ What will I do differently regarding presentation tools/materials than what I used in the original instruction? ☐ How are the explanatory devices and source materials reflective/respectful of: ☐ Variety in modality (auditory, visual, kinesthetic) strengths? ☐ Students' culture, background knowledge, or experience? ☐ Student interest? ☐ Students' current level of readiness and performance? ☐ How can I make this interesting or relevant? ☐ Are there students for whom feedback may serve to explain or clarify the content skill or concept?	☐ Stories ☐ Analogies ☐ Graphic organizer ☐ Physical model ☐ Demonstration ☐ Visual representation ☐ Modeling thinking aloud ☐ Imagery experience ☐ Text reading ☐ Video or audio recording ☐ Technology and software programs ☐ Independent study

| Degree of Complexity | ☐ The cognitive rigor, depth of knowledge, or breadth of context at which the knowledge, skill, or concept is being explored

☐ The extent to which the skill or concept might be broken into component parts for incremental learning of the whole | ☐ What prerequisite skills do students have/need in order to engage successfully with this material?

☐ What confusions or misconceptions are apparent from the initial data?

☐ What do I know or need to find out to best understand what the students already understand or are confused about?

☐ How can I break this down into component parts to ensure incremental success?

☐ How can I translate an abstract concept into concrete examples?

☐ How can students generalize or apply these concepts to other problems/situations/disciplines? | ☐ Problem-based activities

☐ Inquiry-based learning

☐ Varied questioning, problems, activities (i.e., varied complexity, abstractness, connection to various disciplines, generalization, degree of application of skills)

☐ Compacting

☐ Tiering

☐ Scaffolded assignments

☐ Chunking

☐ Step-by-step prompts |

| Student Engagement and Investment in the Learning | ☐ How the learning experience is structured to support the learner's active participation, cognitive engagement, and incremental success | ☐ How might learners be active participants—doing something—during the presentation/reteaching of the material?
☐ How might I engage learners differently than I did in the original instruction?
☐ Is there specific feedback that I could give to students to help them re-engage with the learning?
☐ What is the best social configuration for learner participation during instruction, processing, and practicing? (Individual? Pairs? Small groups?)
☐ How will I signal to students that I know they can do it and I won't give up on them?
☐ How will I gather data frequently to ensure the students are with me or "getting it"?
☐ What opportunities are available for self-assessment/monitoring? | ☐ Peer partners
☐ Periodic pauses for processing or practicing with feedback
☐ Simultaneously doing something (completing a graphic organizer, building a model, etc.) while material is being presented
☐ Materials matched to students' interests, readiness level, or personal experiences
☐ Varied questioning
☐ Independent study
☐ Compacting
☐ Tiered lessons/activities
☐ Anchor activities |
| Processing, Practicing, Applying | ☐ The part where students are making meaning, practicing the skill or concept, and applying the learning to demonstrate mastery | ☐ When/how will I...
  ☐ Gather data to ensure students are getting it?
  ☐ Provide guidance and feedback to ensure success?
☐ What choices might students have for showing what they know?
☐ What opportunities are present for peer learning/assessment?
☐ How should the practice or processing activities be structured to support the learners…
  ☐ When working on their own?
  ☐ When interacting with a partner or small group? | ☐ Choice boards (i.e., tic-tac-toe boards, menus, cubing, etc.)
☐ Self-evaluation
☐ Peer evaluation
☐ Strategy cues
☐ Cooperative learning |

Assessing Impact

Table 6.2   Tools for Monitoring Implementation of Strategies and Outcomes

Logic Model outcomes	Questions to guide monitoring data collection	Suggested monitoring tools
Program or policy outcomes	• Were the program or policy changes implemented? • Was the quality of the implementation as we expected? • Were resources allocated to support the changes?	• Course offerings • Course enrollment data • Program placement data • Graduation rates • Retention rates • Discipline or suspension data • Absenteeism rates • Questionnaires • Surveys • Interviews • School walk-throughs
Teacher-learning outcomes (knowledge, skills, and/or attitudes)	• What are teachers learning? • Are teachers learning new knowledge or acquiring new skills as intended? • What changes in attitudes or beliefs are being made?	• Teacher questionnaires • Teacher surveys • Teacher interviews • Teacher focus groups • Teacher logs/journals • Teacher self-reflections or self-assessments • Classroom observations with protocols • Observations of professional development sessions • Concept maps • Content assessments • Teacher portfolios
Teacher-practice outcomes	• Are teachers implementing their new learning in their classrooms? • To what extent are teachers implementing new strategies as intended?	• Teacher/student questionnaires • Teacher/student surveys • Teacher/student interviews • Teacher/student focus groups • Teacher self-reflections or self-assessments • Classroom observations with protocols or checklists • Demonstration lessons • Classroom walk-throughs
Student-learning outcomes (knowledge, skills, and/or attitudes)	• What are students learning? • Are students learning new knowledge or acquiring new skills as intended?	• Classroom and common content assessments • Student portfolios • Student work • Student questionnaires • Student surveys • Student interviews • Student focus groups • Student logs/journals • Student self-reflections or self-assessments • Classroom observations with protocols • Classroom walk-throughs

Introduction to Formative Assessment for Results (FAR): A Team Approach

By Nancy Love, Nina Smith, Robin Whitacre, and Mary Ann Haley-Speca

Guiding Question
What is the FAR approach? How might it work in our setting?

In this paper, you will be learning to:
- *Describe the research rationale and six elements of the FAR approach*
- *Define formative assessment*
- *Explain the four steps in the FAR cycle*
- *Describe the three functions of FAR team*
- *Explain the role of FAR facilitators*
- *Identify conditions for success*

Igniting the Passion for Student Learning
When asked what they would want for their own children, most educators inevitably say they want the highest levels of education. Do other people's children deserve any less? — Ruth Johnson, 2002, p. 320

*A child is so much more than a test score.* — Data Coach, Las Vegas, Nevada

Somehow in this era of accountability and high-stakes testing, educators may be losing sight of the vision and passion for student learning that brought them into the profession. It wasn't an overpowering desire for their students to achieve the highest standardized test score, that's for sure. Perhaps it was for students to love learning or to be creative and critical thinkers. Maybe it was similar to what Paul Brock wrote about what he wants for his daughters: "to nurture and challenge [their] intellectual and imaginative capacities way out to horizons unsullied by self-fulfilling, minimalist expectations… [and] to care for [them]…as developing human beings worthy of being taught with genuine respect, enlightened discipline and imaginative flair." Or you might be inspired, as we are, by learning that contributes to the quality of their lives and to a society that is "fair, just, tolerant, honorable, knowledgeable, prosperous, and happy" (Brock, 2004, pp. 250-251 as quoted in Hattie, 2012, p. ix).

The kinds of assessments to which our students are now over-subjected (one school we worked with recently had 26 days for testing!) might help us measure progress, however imperfectly. But they do little to motivate learners, build students' sense of efficacy, or teach them to be lifelong lovers of learning. Nor do they give educators the best and most timely diagnostic data to inform next steps for students and teachers. Formative assessment, on the other hand, in its true meaning, delivers on all of this. The ultimate goal of the Formative Assessment for Results (FAR) approach is to develop learners who not only master rigorous curricula but also become confident, efficacious, and skillful masters of their own learning. It is represented as the innermost circle, "Student Learning," in the nested-circles diagram below.
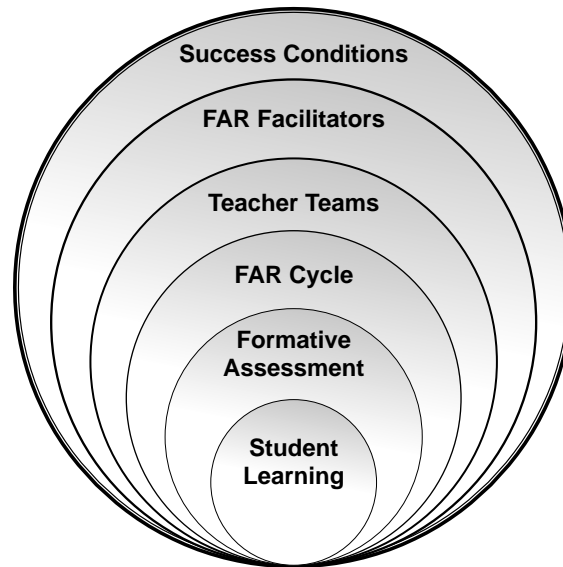
The FAR Approach

To achieve this goal, we believe that teachers deserve the same opportunity to develop their "intellectual and imaginative capacities" as their students. In the FAR approach, formative assessment and its related practices are the content teachers are learning. While formative assessment, represented in the circle immediately surrounding student learning, is a powerhouse in itself, it is not a solo act. Rather it works in concert with careful planning of lessons and units, thoughtful analysis of results, and timely and targeted action in response to data, such as effective feedback to students and reteaching. These actions occur in cycles of continuous improvement that we call the FAR cycle, represented in the next nested circle that surrounds formative assessment.

In the FAR approach, *what* teachers are learning about are formative assessment practices and the steps in the FAR cycle. *How* they are learning is a team-based approach, the next circle in the diagram, "Teacher Teams." In a team, teachers have the opportunity to experiment, make mistakes, reflect on evidence, invent, and give and receive feedback with their peers. They develop expertise together, step-by-step, improving their instruction and their students' learning as they implement the FAR cycle.

FAR facilitators, illustrated in the next nested circle, play a vital role in facilitating FAR teams and keeping the wheels of formative assessment-driven improvement turning. Finally, FAR thrives in systems that place a premium on adult professional culture and create the conditions under which FAR's team learning approach takes hold. This is represented in the outermost circle.

We believe, and research supports, that the elements of the FAR approach work synergistically to improve student learning. Success conditions in schools and districts allow teacher leadership and high-impact teams to thrive. These teams, in turn, implement cycles of formative assessment-driven improvement and strengthen their daily formative assessment practice. Formative assessment now works its magic, increasing student efficacy, motivation, and achievement. This work is as vital as it is possible. And it is precisely what the FAR approach, in partnership with committed schools and districts, intends to accomplish. Think of FAR not as a program, but as resource for building the capacity of teacher leaders (FAR facilitators) and teams to maximize the power of formative assessment. Each of the elements of the FAR approach is described in more detail below.

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-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
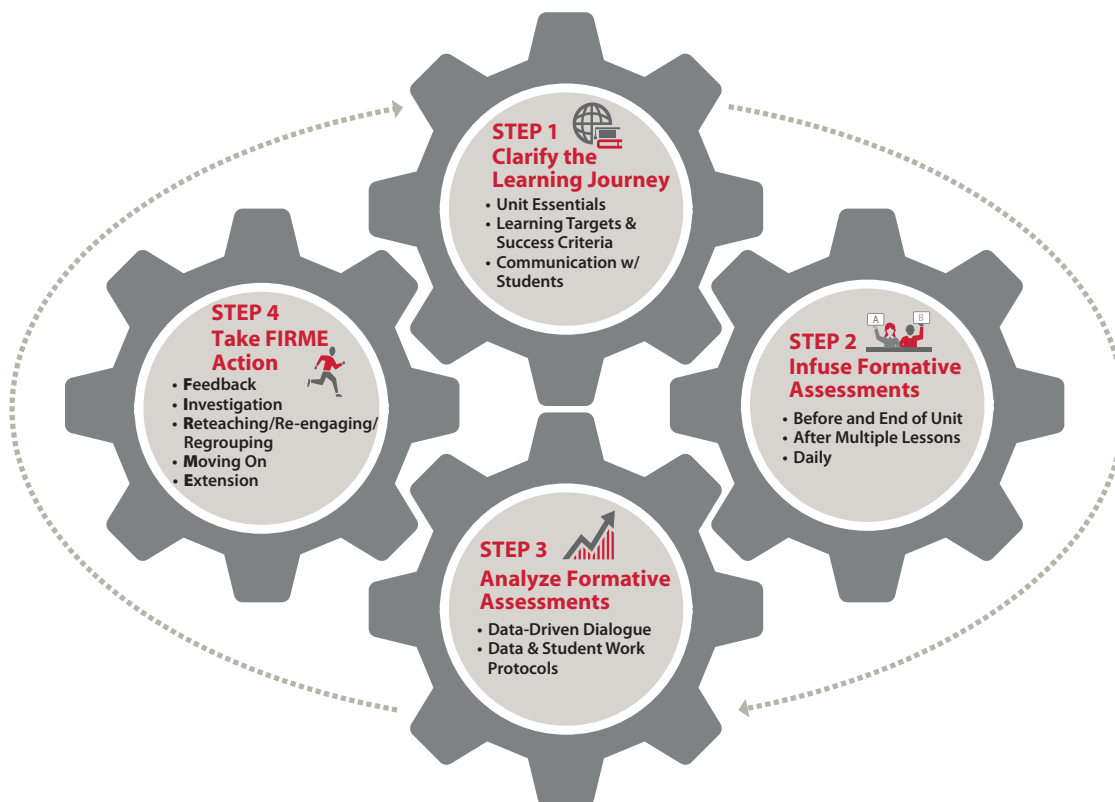
students. Students, in turn, learn to self-assess, set goals, and improve their learning tactics individually and with their peers. Underlying all of these practices is a firm belief in the growth mindset, a commitment to equity and cultural proficiency, and the establishment of a classroom culture that 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.

The FAR Cycle
The FAR cycle answers the question, "What do teachers do individually and as a team to unleash the power of formative assessment (put formative assessment into practice) and improve learning for students?" It has four interconnected steps, illustrated in the graphic below.

The Formative Assessment for Results (FAR) Cycle with Detail

**STEP 1
Clarify the Learning Journey**
• Unit Essentials
• Learning Targets & Success Criteria
• Communication w/ Students

**STEP 2
Infuse Formative Assessments**
• Before and End of Unit
• After Multiple Lessons
• Daily

**STEP 3
Analyze Formative Assessments**
• Data-Driven Dialogue
• Data & Student Work Protocols

**STEP 4
Take FIRME Action**
• Feedback
• Investigation
• Reteaching/Re-engaging/Regrouping
• Moving On
• Extension

If this sounds familiar, it should. The FAR cycle is just an elaborated version of the well-known plan-teach-reflect cycle that teachers engage in every day: planning units and lessons (Clarify the Learning Journey and planning to Infuse Formative Assessments), teaching (Infuse Formative Assessments), then reflecting on that experience (Analyze Formative Assessments) to determine next steps (Take FIRME Action). The difference is that FAR highlights formative assessment every step of the way, so teachers are planning for how to communicate clear learning targets and success criteria to students (you can't hit a target if you don't know what it is) and for how to collect formative assessment data before, during (weekly, daily, minute-to-minute), and after a unit; when teaching, they are infusing formative assessment minute-to-minute, day-to-day, adjusting on the fly; and as they reflect, teachers are analyzing formative assessment results, and then planning for next steps for their instruction and for their students' learning. They never lose their focus on results for students and take every opportunity to put students in charge of their own learning.

Clearly, teachers can and do engage in this kind of rigorous inquiry on their own. But how much better it is to capitalize on the collective brainpower of a team to do the toughest work! (See Teacher Teams below.) The FAR cycle is designed to guide teams to engage in collaborative inquiry, ground their planning and reflection in solid evidence of student understanding, and grow their expertise together. Note that the FAR cycle can apply to an entire unit of instruction. It can also apply to an individual lesson. Let's take a closer look at each step of the cycle.

Clarify the Learning Journey
The first step of the FAR cycle is clarifying the learning journey. There are three components that teams learn about and implement in their practice:
- Unit essentials
- Learning targets and success criteria
- Communicating with students

Unit essentials: In this component of Clarify the Learning Journey, teachers work together to get clear about what is essential for students to learn in an upcoming unit—the unit essentials, which we define as standards (if they are specific enough) or standards broken down into more specific knowledge and skills for the unit. (Note that unit essentials, as we define them, are different from essential questions, which are engaging, rigorous, open-ended questions used to focus both students and teachers on the unit essentials.) Distilling the unit down to the absolute must-knows for all students, team members separate the wheat from the chaff. They dig deeply into the content of a unit, mapping out how the important skills and concepts relate to each other and to previous and future unit essentials. They consider what misconceptions are likely to surface and how to help students unravel them. Finally, they agree on how the essentials for the unit will be assessed, including the product or performance and specific success criteria. In the process, the team strengthens their own grasp of the content and their commitment to teaching those essentials so that every student achieves proficiency.

Learning targets and success criteria: Similarly, for individual lessons, teachers on FAR teams get clear together about what is a worthwhile, lesson-size bite of learning that, in combination with other lessons in the unit, will lead them to mastery of the unit essentials. Whether you call these objectives, mastery objectives, instructional objectives, learning intentions, or learning targets (as we do here), what matters is that teachers are clear on what students are learning, that the targets are expressed in student-friendly language, and that they shape the activities and formative assessments that make up the lesson.

Often the ignored stepchild of unit and lesson planning, success criteria are not to be overlooked. They answer the question for students, "What does success look like and how will I know when I have achieved it?" Serving as the basis for self-assessment and feedback, success criteria create an equal playing field for students who are not skilled at guessing what is on the teacher's mind. A great use of team time is to refine success criteria for specific learning targets and/or open-response assessment items (sometimes called scoring guides). Then team members can gather or create models of work that bring the criteria to life for students and find exemplars that illustrate varying degrees of proficiency. Often it is helpful for teams to road-test their criteria by analyzing actual student work to make sure the criteria are clear and comprehensive before introducing them to students.

Communicating with students: All of the team's work committing to unit essentials and crafting learning targets and success criteria is for naught if they are not communicated effectively to students. The whole point of "clarify the learning journey" is that *students* know where they are headed and are motivated to get on the train with us. Once team members are clear on the destination, they plan for how to invite students along, excite them about the destination, give them a map for how they will get there, and provide them with tools to assess their progress. At the unit level, learning maps of the unit, used daily to connect the lesson to the overall plan for the unit, can be a useful tool along with essential and guiding questions and models of the final product or performance they are aiming for.

At the lesson level, posting learning targets on the board is rarely sufficient to get all of the students on the learning journey with you. Student-friendly language goes a long way toward effectively engaging students with targets; but other techniques can also be valuable, such as color-coding the targets and activities, unpacking the targets' vocabulary, doing activators that brings targets to life, or asking the students to explain what they are learning and why in their own words.

Communication of success criteria can take the form of brief "I can…" statements, checklists, or rubrics. However, just as for learning targets, simply naming the criteria is necessary but often not sufficient for students to "get it." They need to see models, practice critiquing a range of examples, receive feedback, and ultimately learn to assess their own work. Actively and thoughtfully engaging students with unit essentials, learning targets, and success criteria is more important than how they are worded or where they are posted.

Infuse Formative Assessment
The other side of the coin to clarifying the learning journey is infusing formative assessments before and after units and into daily lessons during units. These assessments let teachers and students know whether they have hit the learning target and what adjustments they might need to make to either instruction (teachers) or learning tactics (students). There can be no meaningful formative assessment without learning targets. On the other hand, without formative assessment, we have no way of knowing where students are on their learning journey. Often we find out too late.

In this step of the FAR cycle, teams learn about and implement the following:

Before- and end-of unit assessments: Pre- and post-unit assessments are important to the FAR team process because they are the most typical form of common assessments for teachers teaching the same units at roughly the same time. However, most teachers have not had good training in how to write valid, reliable, and bias-free assessments. It is not easy. In this step in FAR, teams may want to take time to improve their skills so that they can either create or become critical consumers of good assessments.

Or they may have assessments in place already, which they review to make sure they are aligned with what they are teaching. In addition, teams can consider the pros and cons of a variety of kinds of pre-assessments and determine which to implement.

Assessments after multiple lessons: FAR teams might want plan to give a common formative assessment a week or two into the unit to see how students are doing relative to a few learning targets. This could be a short quiz, a writing prompt, an open-response mathematics problem, a science journey entry, or a partially completed end-of unit project. These assessments make good fodder for team analysis (see Analyze Formative Assessments below) if a meeting can be scheduled close enough to when they are given.

Daily assessments: The lifeblood of formative assessment is the daily practices teachers implement to engage all students with diagnostic questions and in discussions that make their thinking visible. In this step in FAR, teams engage in shared learning about these practices, plan for how to incorporate them into upcoming lessons, and share what they are trying and how it is going. While teachers use these practices individually in their classrooms, they may as a team decide to try out some common diagnostic questions together.

Analyze Formative Assessments
All of the above formative assessments provide good material for team analysis. In this component of the FAR cycle, teams engage in making collective sense of formative assessment results, always with an eye toward what's next for their students. FAR materials are packed with data and dialogue tools that guide teams in drawing accurate inferences about student status from which they can make appropriate instructional decisions.

Data-Driven Dialogue: A core tool in teams' analysis toolkit is Data-Driven Dialogue, a four-phase process for having powerful and focused conversations about data. In Phase 1, teams predict what they will see in their data before analyzing the results. In Phase 2, they go visual, creating colorful, easy-to-interpret representations of their results. Phase 3 is the observation phase, where they describe what they are seeing in the data, being careful to separate the facts from interpretations. This is followed by Phase 4, which entails drawing inferences and surfacing questions the data are raising. The arrow leading to FIRME action in the diagram indicates that dialogue is a precursor to taking action, not an invitation to the "paralysis of analysis."
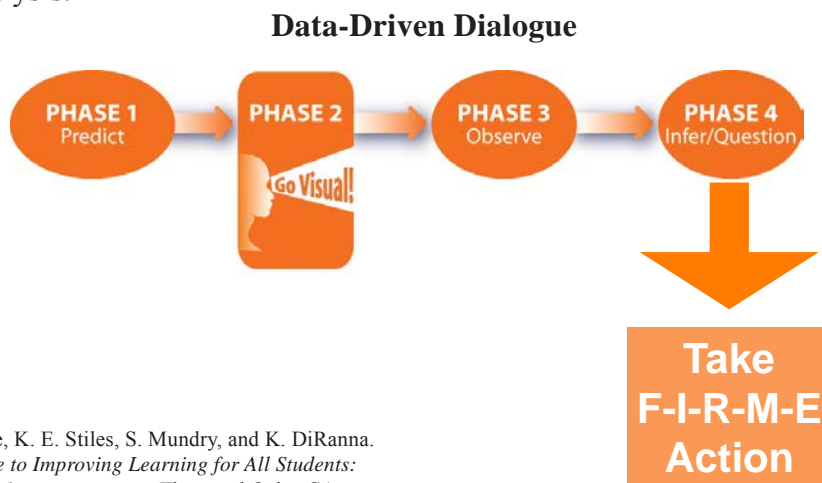
Data-Driven Dialogue

Data and student work protocols: Data-Driven Dialogue can be combined with a variety of data analysis tools. FAR teams choose from among a variety of protocols that align with their purpose and the type of assessments they are analyzing. For example, they may choose one more of the following:
- Item analysis (examining how students perform on individual assessment items, including multiple-choice and open-response) and looking at distractor patterns (wrong answers chosen)
- Error analysis (examining specific errors an misconceptions evident in student work)
- Criteria analysis (determining whether student work provides evidence of prespecified criteria being met or not yet met)
- Quick sort (sorting exit tickets or other brief student work into two or three groups—e.g., exceeds, meets, not yet—to inform next steps for students and teacher)

Take FIRME Action

...the act of teaching reaches its epitome of success after the lesson has been structured, after the content has been delivered, and after the classroom has been organized. The art of teaching, and its major successes, relate to "what happens next"... — John Hattie, 2009, pp. 1-2

It isn't just "do something." It's "do what?" — Jan Chappuis, 2014

When [teachers] see learning occurring or not occurring, they intervene in calculated and meaningful ways to alter the direction of learning to attain various shared, specific, and challenging goals. — John Hattie, 2009, p. 22

Perhaps nothing is more important in the entire FAR cycle than taking action in response to formative assessment data on a daily basis. Stepping on a scale every day doesn't change our weight. What matters is what we *do* in response to that information. The same is true for formative assessment. The data in themselves do not necessarily improve student learning or teaching quality. But when the data lead to providing targeted, timely feedback to learners and to teaching and engaging them differently than the first time around, that's when students reap the benefits.

The acronym FIRME is a reminder of the kinds of actions that teachers take in response to formative assessment data collected during a lesson, after one or more lessons, and at the end of the unit. Below is a brief description of each action. For more detail, see Step 4: Take FIRME Action.

F: Stands for **feedback**. Most students are starved for effective feedback, the kind that causes them to think and gives them specific information on what to do to improve their product or performance. Ramping up both the quality and the quantity of feedback teachers provide to students is one of the most high-leverage actions teachers can take in the FAR cycle. But, to be effective, feedback must exhibit certain qualities that distinguish it from generic praise or criticism (statements like "great job" or "this is the worst paper in the class"), which can actually do more harm than good. To be effective, feedback must be:
- Tied to learning targets and success criteria
- Concrete and specific
- Nonjudgmental
- Calibrated (providing just as much information as the student can handle)
- Timely (provided during the learning)
- Scaffolded (offered in such a way that students are required to do the thinking and receive our guidance and advise only when needed).

Though this may initially seem a bit daunting, FAR teams learn together about how to provide effective feedback, including practical and time-saving techniques that give students the feedback they need without overwhelming their teachers.

I: Stands for **investigation**. Investigating student thinking comes into play in every lesson in the daily diagnostic questions and other formative assessment techniques used to elicit evidence of student thinking. Often teachers can quickly discern the cause of a student's error or confusion and adjust on the fly. Sometimes, however, teachers are genuinely stumped about why students made a particular error or offered a particular response. Before proceeding, they need more information. For example, one team we recently observed identified five possible reasons why their students were not performing well on the life science questions at the end of an assessment. They hypothesized that their students (1) were experiencing test fatigue; (2) did not understand how to interpret the diagrams; (3) did not understand the science concepts in the questions; (4) were missing some essential vocabulary; and (5) lacked test-taking skills. Each hypothesis would lead to a very different course of action. If they decided to reteach vocabulary, but the problem actually resulted from students' lack of understanding of the science concepts being assessed, they were not likely to improve results. So a simple pause to check in with students to get more information about what they were thinking can save time and energy that would have been wasted trying to solve the wrong problem.

R: Stands for **reteaching, re-engaging,** and **regrouping** students. Teachers reteach to make sure that students who need it get another opportunity to reach the learning target of a previously taught lesson. Re-engaging learners is a close companion of reteaching and extension. It means engaging learners in a different way than was done the first time, for example, through a role-play, computer simulation, peer feedback, or learning stations employing multiple modalities. The third R—regrouping—entails choosing from a repertoire of grouping strategies, such as grouping based on need or performance, by choice, in carefully structured cooperative groups, or across classrooms in response-to-intervention or flexible groups.

M: Stands for **moving on**. Moving on is a legitimate response to formative assessment data. Clearly, if all students have achieved proficiency, moving on is the obvious choice. But when do you decide to move on even when some students have not yet achieved proficiency? A commitment to FIRME does not mean holding up an entire class for weeks until everyone achieves mastery. A reteach may be as simple as taking a few minutes out of a class period for reteaching and extension before moving on to the next lesson. Or a teacher might provide one or two differentiated lessons after an assessment is given, followed by an opportunity for students to revise their products or retake the test. After taking FIRME action, teachers often need to move on when most, but not all, students have achieved proficiency. However, when some students have not yet mastered an important concept or skill, it is important to have a plan for how they will do so.

E: Stands for **extension**. For students who master the target before others, teachers provide opportunities for extension, challenging these students with greater rigor and guiding them to take the next step in their learning.

Note that FIRME actions are not mutually exclusive. Nor are the letters in the acronym meant to imply a sequence in which these actions are taken. Rather, teachers choose from and combine elements of FIRME that will move their students' learning forward. For example, in one lesson, a teacher may regroup students for reteaching and extension; in another, feedback may be sufficient. Or feedback

may be combined with reteaching and extension. Often, more investigation is needed to unearth students' misconceptions and inform next steps. What is most important is that FIRME is a constant companion of formative assessment and that FAR teams work together to take high-leverage, committed action to improve results for all students.

Teacher Teams

…it is a community of teachers that is needed to work together to ask the questions, evaluate their impact, and decide on the optimal next steps; it is the community of students who work together in the pursuit of progress. Such passion for evaluating impact is the single most critical lever for instructional excellence—accompanied by understanding this impact, and doing something in light of the evidence and understanding. — John Hattie, 2012, p. viii

There is an old adage: "It you want to lift five pounds, you can lift it yourself. But if you want to lift 100 pounds, you need a team." Implementing the FAR cycle is at least 100 pounds! It takes a team. A growing body of research hails teacher collaboration as an achievement accelerator—*if* teams focus on results for students, make rigorous use of multiple data sources, and reflect on and improve their teaching practice together (Hattie, 2009; McLaughlin & Talbert, 2007; White, 2010). In short, high-impact teacher teams, the next circle in the FAR approach, focus on learning about and applying all of the skills we described above.

Whether you call your teams professional, teacher, or collaborative learning communities or common planning time, grade-level, subject, or common course teams, or, if you like, FAR teams, we offer this definition of teacher teams:

A group of teachers who teach the same content and share complementary skills (content, pedagogy, data, cultural proficiency). They are committed to a common purpose (improving the learning of each and every student they serve in their common grade-level or content area), performance goals (SMART student-learning and instructional goals), and approach (a collaborative inquiry cycle such as FAR) for which they hold themselves mutually accountable. (Adapted from Katzenbach & Smith, 1994, p. 45)

Teacher teams have three main purposes in FAR. First, they provide both the support and the accountability for teachers to improve their formative assessment and other closely related practices, such as communicating clear learning targets to students or providing them with effective feedback. Second, they are a place for implementing the steps in the FAR cycle that are best done in a team, such as planning learning targets and success criteria together, designing and collecting good diagnostic questions, analyzing formative assessment results, and planning for taking FIRME action. Then teachers translate these plans into action in their classrooms. Finally, teacher teams offer a place for teachers to reflect on their individual teaching and team practice and its impact on student achievement, always with a eye toward improving their practice and results even more next time.

To carry out these functions effectively and impact student learning, it is essential that teams meet together regularly (a minimum of 45 minutes/week). It takes time to learn together, plan for and take action to carry out the FAR cycle, and reflect thoughtfully. Moreover, the FAR cycle uses evidence of student learning *during* instruction. This requires that team meetings take place soon enough after a particular lesson or series of lessons so that teachers can plan for and take FIRME action in a timely fashion. Many of the teams we work with meet weekly during common planning time and carve out

additional time from faculty meetings and professional development days to do a deeper dive into a particular aspect of FAR. FAR also progresses in small steps over time; it is a multi-year process to fully implement and institutionalize the steps in the FAR cycle along with the three functions of learning together, taking action, and reflecting, described in more detail below.

Learning Together

How often have districts invested in workshops that have little lasting impact on teaching practice? What is often missing is the bridge between what teachers learn in the workshop and the opportunity to change deeply ingrained habits and integrate new practices into their instruction. FAR teams build that bridge, creating a structure for providing just-in-time, ongoing support as well as accountability, hallmarks of teacher teams that impact teaching (Wiliam, 2009). The advantage of developing expertise in a team is that teachers can help each other before they end up getting too frustrated and giving up. They can improve their practice in small steps (one meeting at a time!) rather than trying to implement too many practices at once, getting overwhelmed, and, ultimately, reverting to more comfortable and familiar ways. And that support comes from other teachers, so the learning is practical and directly tied to classroom practice. In addition, colleagues are learning and experimenting at the same time, so the team gets the benefit of everyone's experience. Wiliam compares changing formative assessment practice to Weight Watchers. Everyone knows they need to eat better and exercise more. But it's hard to change habits without support.

While teacher teams provide support, they can also hold members accountable for improving their teaching, another powerful advantage of collaboration. As Michael Fullan observed, "it turns out that blatant accountability, focusing on tests, standards, and the like, are not the best way to get results. Rather, successful systems combine strategies of capacity-building and transparency of results and practice…There is no greater motivator than internal accountability to oneself and one's peers" (Fullan, 2011, p. 8).

We have observed this in action. For example, if the team agrees to try out a diagnostic question together and report back on their experience or bring samples of their students' work to analyze, individual members feel the press to follow through, at the very least initially, to avoid embarrassment. And nothing ramps up accountability to teach to rigorous standards like common assessments that the team analyzes together. One team leader reported to us, "We used to say we taught to the standards. But it wasn't until we started administering and analyzing common assessments that we actually did." FAR materials provide teams with a variety of "learning together" activities about formative assessment and the FAR cycle to seed this vital function of teacher teams.

Taking Action

While learning together is key, FAR teams are not just study groups. They take action individually and as a team to implement the steps in the FAR cycle (see description above) and put into practice what they are learning in their classroom. Nothing changes for students unless teachers are improving what they teach, how they teach, how students are learning, and how formative assessment informs all of it. To extend the Weight Watchers metaphor, if all you do is go to meetings and step on the scale, but continue to eat and exercise as you always have, you won't lose weight! In other words, it is essential that teachers do the work in between meetings to clarify their students' learning journey, infuse formative assessment into their daily practice, analyze results, and take FIRME action. And at their meetings they must use their time wisely to prepare for the actions they will take in their classrooms. A good FAR team meeting ends with the team members committing individually and collectively to specific actions, for which they will be held accountable by their peers at the next meeting.

Reflecting

We do not learn from experience…we learn from reflecting on experience. — John Dewey

Know thy impact. — John Hattie, 2012, p. ix

Finally, FAR teams provide a place for teachers to reflect on their practice and their impact on student learning. In the hectic pace of the school day, teachers rarely have the chance to catch their breath. It is easy to get stuck on the "do" button—without ever knowing whether all of that frantic activity is producing the results we want for students. FAR teams are reflection machines. Reflection is built into the Analyze Formative Assessments step in the FAR cycle, where teachers use evidence of student understanding to "determine optimal next steps" (Take FIRME Action). But reflection is not just a step in the FAR cycle. It is a vital function of each step in the cycle. As team members are trying out new practices, such as communicating success criteria to students (Clarify the Learning Journey) or providing feedback (Take FIRME Action), they collect data on how their experiments went and what the impact was on students' learning and motivation. They reflect on what went well and where they got stuck. And they come back to their team to share and deepen their reflections with their colleagues. For each step in the FAR cycle, you will find questions and protocols (see FAR Circle in FAR Basics) to use to guide team reflection. A meeting a month just for reflection is time well spent.

FAR and the Annual Improvement Cycle

Typically, teacher teams launch their work by setting annual SMART (Specific, Measurable, Attainable, Relevant, Time-bound) goals. To arrive at these goals, they examine multiple sources of data, including, if relevant to their content-area focus, state assessments. They also consider their school and district plans so that their team's improvement efforts are sure to advance school and district goals. Then they flesh out the details of a plan to achieve their SMART goals, identifying specific activities they will undertake and benchmarks for measuring progress toward these goals

The FAR cycle kicks into gear after the team has developed its annual plan. It is what teams do, unit-by-unit and week-by-week, to implement and monitor their annual plan. To improve student learning, for example, team members take action in their classrooms to engage students in grasping what they are learning, why it is important, what it looks like when they have achieved proficiency (Clarify the Learning Journey). Then they check for understanding to see if students can explain what they are learning in their own words and report back to their team on their results. Next, team members infuse formative assessment by, for instance, all giving an exit ticket at the end of a subsequent lesson and bringing samples of student work to analyze at their next meeting. Based on analysis of what errors students made and why (Analyze Formative Assessments), they develop and put into action ways of providing feedback and reteaching that get to the essence of the error or confusion (Take FIRME Action). They come back to the team and report on what they tried and its impact, gathering ideas from their colleagues. At the end of the unit, they analyze their common unit assessment and take FIRME action once or twice more before moving on to the next unit.

These short cycles of improvement continue throughout the school year. So, when those summative assessments are given at the end of the year, there are no surprises. The team knows that they are on track for success. The Total Quality Management movement coined the phrase "100% improvement—1% at a time." The FAR cycle is that slow, steady progress toward 100% improvement.

If all this sounds too good to be true, it just might be. We have all had more than our share of dysfunctional teams that squander our time, engage in the paralysis of analysis, and have no positive impact on achievement. Good teams are not born any more than good teachers are. They develop over time and, in our experience, require skillful facilitation and leadership in order to stay on track.

FAR Facilitators

> *Because FAR is being led by teachers, other teachers are buying into it in a way I have not seen with other professional development programs. FAR has penetrated every grade level and classroom.* — Dr. Mary Dill, Principal, Connery School, Lynn, Massachusetts

Returning to the nested-circles diagram, we move now from teacher teams to the next circle: FAR facilitators. We rarely see teams stay on track without skillful facilitation and leadership. Facilitators are the hinge-point for success with FAR and the primary audience for FAR materials and professional development. Their role in mobilizing excitement and buy-in, implementing the FAR cycle with a team, and sustaining FAR over time cannot be overestimated.

By leadership, we do not mean formal or positional leadership. FAR facilitators are most often teacher leaders who either teach full time or have a lighter load to allow them to play this role. Instructional coaches or specialists, such Literacy or Mathematics Specialists, can also act as FAR facilitators. We have found that pairing teacher leaders with a coach or specialist works well, so that two people can share in the preparation and planning, but the coach or specialist doesn't necessarily attend every team meeting. Whoever steps into this role, it is important for them to know that they are not expected to be the experts in formative assessment. In fact, it is preferable that they are experimenting and learning with their colleagues, true co-learners.

Here are some of the qualities that are important for FAR facilitators:
- 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 assume the team leader role
- Are devoted to continuous improvement of their own practice

FAR facilitators provide several critical functions, modeling with the team some of the same practices teachers are learning to apply with their students. For example, they establish a safe environment for risk-taking, embracing mistakes as learning opportunities, just as teachers do in the classroom. They are the first to admit to their own struggles and to ask for help from their colleagues. Equally important, they take a stand for the growth mindset, communicating their belief in the capacity of teachers and students and their willingness to strengthen their own cultural proficiency in their words and deeds. Honoring adults learners, they provide teams with choices about what they will learn and how, based on their own goals for their students and for their practice. In collaboration with the team, they establish a clear purpose for the meeting, for example, learning together, taking action, reflecting, or some combination. They clarify the learning journey for their teammates by establishing clear goals and an agenda for the meeting. Using the FAR cycle as a roadmap, they select the step, activity, and/or protocol that matches their purpose and goals. Finally, facilitators lead meetings so that the time is used productively and each meeting ends with team members committing individually and as a team to next steps.

Success Conditions

We are not so naïve as to think that if we just implement the elements of the FAR approach described above, formative assessment practice will improve, teams and facilitators will function at high levels, and student learning will improve, like magic. We know that for any of the layers in the FAR approach to work requires a system that is organized to support continuous professional learning. The final circle in our nested-circles diagram, called "Success Conditions," represents the surrounding atmosphere in which the FAR approach thrives. But if that atmosphere is toxic, FAR will not go far. A supportive environment for FAR 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 FAR appears below. Add your own to the list!

District Leadership
- Make clear the alignment of FAR with district goals
- Make FAR a priority focus for the district; devote time and energy to manage and supervise the project; protect participants from innovation overload
- Actively participate in FAR planning and professional development
- Embrace a growth mindset and cultural proficiency

Principals
- Value teacher teams and teacher leadership
- Protect time for teams to meet together weekly (teachers who teach same content and/or grade level)
- Know what effective teams look like and sound like
- Participate actively in all FAR professional development sessions
- Embrace a growth mindset and cultural proficiency
- Understand FAR and the role of FAR facilitators and communicate their value
- Meet regularly with FAR facilitators

Teacher Leaders or Coaches as FAR Facilitators
- 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 FAR professional development sessions

Time
- Teacher teams (teachers who teach same content and/or grade level)
  - Meet a minimum of 45 minutes/week
  - Focus team time on FAR activities

- FAR facilitators
    - Need time to prepare for and facilitate team meetings
    - Need time to collaborate with other FAR facilitators 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 and teachers to strengthen expertise in the knowledge and skills required for effective teamwork
- Opportunities provided for FAR facilitators to meet and learn together

Conclusion

"How long did it take you to throw that pot?" asks a woman approaching an elderly potter at his wheel. His answer, "A lifetime." — Ancient proverb

Just as for the potter in the proverb, becoming an expert teacher is a life's work. There is no cookbook or checklist for how to undertake this or any other complex and demanding endeavor. We get good at teaching by continuous study, experimentation, and reflection. And these practices are central to the FAR approach, which provides a framework and a set of tools for developing teaching expertise using formative assessment and the constellation of skills and processes that accompany it. More importantly, FAR is an urgent call to action: for educators to provide students with expert teaching and the unshakeable belief in their capacities that they so deserve. It is our fondest hope that teacher leaders and teams, with the informed support of district and school administrators, will take students and teachers on a learning journey that will last a lifetime.

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