Formative Assessment: From Event to Process

Formative assessment is often described as one of the most powerful influences on student learning. Yet, despite its widespread use in schools, there is often confusion about what formative assessment is—and what it is not.

For some, formative assessment is associated with quizzes, exit tickets, common assessments, or data meetings. While these tools may provide valuable evidence of learning, formative assessment is much more than a collection of strategies or assessment events. At its core, formative assessment is a process that helps educators and students make learning visible, understand where learners are in relation to learning goals, and determine meaningful next steps.

This resource is intended to support educators, collaborative teams, school leaders, and district leaders in reflecting on current understandings and practices related to formative assessment. Through reflection, reimagining, and connection to current mathematics initiatives, the goal is to move from viewing formative assessment as an event to understanding it as an ongoing process for improving teaching, learning, and student agency.

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The Big Idea

The California Department of Education defines formative assessment as:

> *"Formative assessment is a deliberate process used by teachers with students during instruction that provides actionable feedback that is used to adjust teaching and learning strategies to improve students' attainment of learning targets and goals. Formative assessment is a process, not a test."*

This distinction matters because formative assessment is often misunderstood as a test, quiz, or assessment event rather than an ongoing process that supports learning.

Recognizing this challenge, the Riverside County Mathematics Task Force noted its 2020 whitepaper, A Proposed Vision for Mathematics Education - Formative Assessment:

> *"A need exists to foster a broader definition of assessment to include minute-by-minute and day-to-day embedded formative assessment."*

This need remains relevant today.

Formative assessment is not an event, instrument, or assessment type. It is the continuous practice of gathering, interpreting, and responding to evidence of student thinking in order to move learning forward.

Everything else - an exit ticket, hinge questions, observation, student work sample, discussion, routine, quiz, or common formative assessment - is simply a potential source of evidence.

Formative assessment occurs when **educators and students** use the evidence to adjust teaching, learning, feedback, and support in ways that improve student outcomes.

Ultimately, formative assessment is a way of understanding where learners are in their learning journey and determining meaningful next steps. By responding to evidence

of student thinking, **educators and students** work together to support growth, deepen understanding ,and move learning forward.

Reflect and Reimagine

- When educators in your district use the phrase *formative assessment*, what are they referring to?
    - An exit ticket, quiz, test, common [formative] assessment?
    - A data meeting?
    - A feedback process?
    - Student self-assessment?
    - A cycle of inquiry and continuous improvement?
    - A process in which teachers and students use evidence
    - Something else?
- Which of these responses are most common in your district?
- Which responses reflect the definition presented in the previous section?
- Which responses focus on gathering evidence, which focus on using evidence to improve learning?
- In which of these are students using evidence of learning to make decisions about their own next steps?

Formative assessment is not something teachers do to students. It is something teachers do with students.

Students are not merely the subjects of assessment; they are active participants in the formative assessment process. They use evidence, feedback, reflection, and goal setting to understand where they are in their learning, identify meaningful next steps, and move their learning forward.

If formative assessment is a process rather than an event, what might need to change in the way your district talks about, plans for, or implements formative assessment?

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Formative Assessment Cycle

The formative assessment cycle is an ongoing process used by educators and students to make learning visible, gather and interpret evidence, and determine meaningful next steps. While the cycle is presented as a series of components, formative assessment is not always linear. Educators and students may move back and forth between components as they respond to evidence and adjust teaching and learning.

1. Clarify Learning: Where are we going?

Questions:

- What are students expected to learn?
- What does success look like?
- Do students understand the learning goal?
- Can students describe quality work?

Examples :

- Learning goals
- Success criteria
- Exemplars

2. Elicit Evidence: What are students thinking?

Questions:

- What evidence are we gathering?
- What are students saying, doing, writing, and creating?
- What misconceptions, strengths, and strategies are emerging?

Examples :

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- Discussion
- Exit tickets
- Observations
- Student work
- Math Language Routines
- Building Thing Classroom Monitoring

3. Interpret Evidence: What does the evidence tell us?

Questions:

- What do students understand?
- What misconceptions are emerging?
- What patterns do we notice?
- What strengths can we build upon?

Examples

- Student work analysis protocols
- Collaborative inquiry protocols
- Error analysis routines
- Learning progressions
- Success criteria
- Analyzing student work

4. Respond: What should happen next?

Questions:

- What feedback is needed?
- What instructional adjustments are needed?
- What opportunities for revision are needed?
- What support or extension is needed?

Examples :

- Feedback
- Re-engagement lessons
- Flexible grouping
- Conferencing

Note: The quality of instructional decisions depends on the quality of evidence interpretation.

5. Activate Students: How do students use evidence to move their own learning forward?

Questions:

- How are students reflecting?
- How are students setting goals?
- How are students using feedback?
- How are students monitoring progress?

Examples :

- Self-assessment
- Peer feedback
- Goal setting
- Reflection protocols

The components of the formative assessment cycle are interconnected and mutually reinforcing. While educators often focus on eliciting evidence, meaningful formative assessment also requires interpreting evidence, responding to evidence, and supporting students in using evidence to move their own learning forward.

Reflect on the Cycle

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- Which parts of the formative assessment cycle are strengths in your district?
- Which parts receive the most attention?
- Which parts receive the least attention?
- How are students involved in the formative assessment process?
- Which parts of the cycle could be strengthened to better support learning?

Responding to Learners

Formative assessment can be used to support all learners. As educators gain a deeper understanding of student thinking, they can provide increasingly responsive learning experiences, feedback, and opportunities for growth. The intensity of support may vary, but the formative assessment process remains the same: clarify learning, elicit evidence, interpret evidence, respond, and activate students as partners in the learning process.

What does formative assessment look like in Universal Support?

- Used daily and embedded within instruction
- Provides all students with opportunities to demonstrate understanding
- Informs immediate adjustments to teaching and learning
- Supports student reflection, feedback, and goal setting

What does formative assessment look like in Targeted Support?

- Uses evidence to identify specific learning needs
- Provides additional opportunities to demonstrate understanding
- Offers more targeted feedback and support
- Engages students in monitoring progress toward learning goals

What does it look like at Intensive Support?

- Builds from a deep understanding of individual student thinking
- Uses evidence gathered across multiple opportunities
- Provides personalized feedback and learning experiences
- Supports students in identifying meaningful next steps for growth

Reflect on Current Practice

- How do students use evidence of learning to inform their own next steps?

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- How does evidence of student thinking influence instructional decisions in classrooms across your district?
- How do collaborative teams use evidence of student thinking to inform instruction, intervention, and extension?
- How does your site or district support educators in interpreting evidence rather than simply collecting data?
- How are strengths, assets, and emerging understandings considered when determining next steps for learners?
- What evidence exists that formative assessment is being used as a process for improving learning rather than primarily as a tool for measuring performance?

Common Misconceptions

Common misconceptions can unintentionally shift formative assessment from a process that supports learning to a practice focused primarily on measuring performance.

Myth:

"Formative assessments are ungraded quizzes."

Reframe:

A quiz—graded or ungraded—may provide evidence of learning. Assessment becomes formative when the evidence is used by educators and students to inform next steps for teaching and learning.

Myth:

"We give formative assessments every Friday."

Reframe:

Assessment becomes formative when evidence is used to inform teaching and learning. Formative assessment is a process, not a scheduled event.

Myth:

"Teachers do formative assessment."

Reframe:

Students must be active participants in the process through self-assessment, reflection, feedback, and goal setting.

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Myth:

"Formative assessment is primarily about identifying what students don't know."

Reframe:

Formative assessment helps educators and students understand strengths, assets, misconceptions, and emerging understandings in order to determine meaningful next steps for learning.

Myth:

"Data meetings are formative assessment."

Reframe:

Data meetings can support formative assessment when they focus on understanding student thinking, identifying next instructional steps, and supporting learner growth. Reviewing data alone is not formative assessment.

Myth:

"The more assessments we give, the better our formative assessment system."

Reframe:

Formative assessment is not defined by the quantity of evidence collected, but by how evidence is interpreted and used to improve teaching and learning.

Challenge Assumptions

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- Which misconceptions about formative assessment are most common in your classrooms, schools, or district?
- How does your system distinguish between collecting evidence and using evidence to improve learning?
- In what ways are students active participants in the formative assessment process?
- Which current practices, structures, or policies support—or hinder—the effective use of formative assessment?
- Which district, site, or classroom practices most strongly reinforce the idea that formative assessment is a process rather than an event?

Connecting Formative Assessment to Current Mathematics Work

Formative assessment is not a separate initiative or program. It is embedded within many of the frameworks, practices, and approaches that support effective mathematics teaching and learning.

Designing Learning Experiences

California Mathematics Framework – Chapter 2
Formative assessment supports the development of equitable, engaging, and rigorous learning experiences by helping educators understand and respond to student thinking.

Universal Design for Learning (UDL)
Formative assessment relies on multiple ways for students to demonstrate understanding and multiple opportunities for educators and students to gather evidence of learning.

UDL Math (Mathematizing for All)
Formative assessment supports accessible and inclusive mathematics learning by helping educators identify and respond to learner variability and strengths.

Cognitively Guided Instruction (CGI)
Formative assessment is the process of understanding student thinking and using that understanding to inform instructional decisions.

Building Thinking Classrooms (BTC)
Formative assessment occurs as educators monitor student thinking, notice strategies, interpret evidence, and determine meaningful next steps during problem solving.

Teaching and Assessing Mathematics

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Effective Mathematics Teaching Practices
Formative assessment is explicitly reflected in the practice of eliciting and using evidence of student thinking and is strengthened through purposeful questioning, discourse, feedback, and productive struggle.

Formative Assessment
A continuous process in which educators and students gather, interpret, and use evidence of learning to improve teaching and learning.

Reasoning, Discourse, and Sense-Making

5 Practices for Orchestrating Productive Mathematical Discussions
Anticipating, monitoring, selecting, sequencing, and connecting student thinking depend on evidence gathered through the formative assessment process.

Mathematical Language Routines (MLRs)
MLRs provide opportunities to elicit evidence of mathematical reasoning, communication, and language development.

Reasoning Routines
Reasoning routines, rich tasks, and discussion structures provide opportunities for students to make their thinking visible and for educators to gather evidence of learning.

Mathematical Discourse
Classroom discussions provide rich evidence of student thinking that can be used to inform instruction, feedback, and next steps for learning.

Make Connections

- How consistently is formative assessment understood across classrooms, schools, and departments within your system?
- Which existing initiatives, frameworks, or professional learning efforts already support formative assessment?

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- Where do opportunities exist to strengthen coherence across instructional practices, assessment practices, and student supports?
- How are students positioned as active participants in the formative assessment process throughout the system?
- What structures, routines, or beliefs most support the use of formative assessment as a process for improving learning?
- What structures, routines, or beliefs may unintentionally reinforce formative assessment as an event, assessment, or compliance activity?
- If formative assessment became a shared practice across the system, what might students, educators, and leaders experience differently?

Closing Thoughts

Formative assessment is not another initiative to implement. It is a way of thinking about teaching and learning.

When formative assessment is understood as a process rather than an event, evidence becomes more than data to collect. It becomes information that educators and students use together to make learning visible, celebrate strengths, address misconceptions, and determine meaningful next steps.

As schools and districts continue to strengthen instructional systems, formative assessment offers an opportunity to create learning environments that are increasingly responsive, supportive, and empowering. By centering student thinking, feedback, reflection, and agency, formative assessment helps ensure that decisions about teaching and learning are grounded in evidence and focused on growth.

The goal is not simply to gather more information about learning. The goal is to use that information in ways that help every learner move forward.

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