Facilitator’s Guide for Module 1:
Exploring the Foundations
of Classroom Formative Assessment

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## Table of Contents

The Facilitator’s Role .................................................................................................................. 1

Key Concepts in Module 1 ........................................................................................................... 2
  - Definition of Formative Assessment ..................................................................................... 3
  - Formative Assessment within a District’s Comprehensive Assessment System .................. 4
  - Research Evidence on Impact of Formative Assessment Is Compelling ............................. 4

Agenda for Module 1 Community of Practice ........................................................................... 6
  - Participant Agenda for Module 1 CoP Meeting ................................................................. 7
  - Facilitator’s Agenda for CoP Meeting for Module 1 .......................................................... 9

Appendix A: My Initial Reflections on Module 1 ..................................................................... 13

Appendix B: Frequently Asked Questions/Misconceptions with Suggested Responses .......... 14

Appendix C: Resources and Evaluation Form ......................................................................... 16

Appendix D: Extended Learning Opportunities ........................................................................ 26

References .................................................................................................................................. 28
Facilitator’s Guide for Module 1: Exploring the Foundations of Classroom Formative Assessment

The facilitator’s guide for Module 1 contains the following:

- A description of the facilitator’s role;
- A review of the key concepts in Module 1;
- An annotated draft agenda for the first 90-minute meeting of your Community of Practice (CoP) that can be adapted to fit your context; and
- Appendices (frequently asked questions or misconceptions with suggested responses, resource materials and an evaluation form, descriptions of extended learning opportunities that you can draw upon in response to needs of members of your community of practice, and references).

The Facilitator’s Role

Note: The Department realizes that facilitators from different schools and districts may have more/less time dedicated to their facilitation work and that what is described here is the ideal.

As facilitator, you will guide your CoP through activities that follow the completion of each module in the online course, Linking Learning and Assessment, to help teachers build a common understanding and to integrate formative assessment processes into their instructional practice. You will lead them through activities, discussions, and readings, customizing each session to meet the learning needs of your CoP in the context of your school.

Your primary responsibility is to deepen teachers’ understanding of what is learned in each module through reflection on key points, dialogue that enables them to link their learning to their instructional practices and their school’s context, lesson or unit design that integrates key elements from the course, and ongoing observation of formative assessment’s impact on student performance. Through recurring activities in the CoP meetings, you will keep track of participants’ learning and remind them where they have been and where they are going.

In preparation for facilitating the first meeting with your community of practice, you will want to review the Module 1 online course and this facilitator guide, including its appendices. If you have not already done so, you will also want to read or skim the four assigned readings for this module, which are available through the RIDEmap portal:
Two weeks before the session, arrange for a meeting space and email CoP members to remind them of the meeting and any actions they agreed to take between meetings.

One week before the session, check in with each participant to get a sense of their understanding of formative assessment—what skills, knowledge, and understanding they bring to the group and what questions they have. Ask them to bring a hard copy of their CoP prep form (see Appendix A), which they completed at the end of the lesson to the meeting. Prepare chart paper, copy materials, and gather supplies that will be needed.

On the day of the meeting set up the room and provide refreshments or ask participants to bring their own drinks and/or snacks, especially if the meeting is held after school. Begin and end the meeting on time and include every participant in the group discussions. Obtain feedback from participants on the effectiveness of activities and facilitation (see evaluation form on page 25 in Appendix C).

Key Concepts in Module 1

Learning Goals for the CoP Meeting on Module 1:
- Deepen and extend my understanding of formative assessment
- Begin to understand what changes need to occur in my practice and what impact formative assessment will have on my team’s practice
- Understand formative assessment’s position in my classroom’s and my team’s comprehensive assessment system

Success Criteria for the CoP Meeting on Module 1:
- I can explain the key ideas in the state’s definition of formative assessment to colleagues.
- I can recognize the changes that formative assessment requires in my practice and that of my team.
- I can explain and visually depict the place of formative assessment in my classroom’s and my team’s comprehensive assessment system.

One of your goals in facilitating this session is to clarify and deepen participants’ understanding of the three key concepts of this module:
- The CCSSO definition of formative assessment;
- Why and how formative assessment fits into a district’s comprehensive assessment system; and
• The compelling evidence supporting the impact of formative assessment on student performance.

The next few pages provide a summary of the key concepts in Module 1. They offer what you need to know to feel confident about discussing the content with your CoP.

**Definition of Formative Assessment**

Rhode Island’s definition of formative assessment is adopted from that of the Council of Chief State School Officers: Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students’ achievement of intended instructional outcomes (CCSSO, 2008).

*Note: When asked, participants will often identify the following as important words in this definition: process, during, feedback, and improve. They are pivotal in helping teachers to understand some common misconceptions about formative assessment.*

• **It is the same as common formative assessment.**
• **It is the same as benchmark assessment.**
• **It is a set of engagement strategies. (See Appendix B for succinct responses to additional frequently asked questions and misconceptions.)**

Formative assessment is a process that takes place continuously during the course of teaching and learning to provide teachers and students with feedback to close the gap between students’ current learning and desired goals (Heritage, 2010). It is a planned, intentional, and ongoing instructional process to elicit and interpret evidence about student learning that allows a teacher and student to adjust teaching and learning in real time to close the gap between that student’s current learning and a specific learning goal. It encourages a partnership in learning between teachers and students.

To further deepen participants’ understanding, it is important to reinforce the five characteristics of formative assessment (CCSSO, 2008) that were introduced in Module 1. To be considered formative assessment, all of the following attributes must be part of the process:

• **Learning progressions** clearly articulate the pathway typical students travel to meet a learning goal;
• **Learning goals and success criteria** are clearly defined and shared with students;
• **Descriptive feedback** is evidence based and linked to the intended instructional outcomes and success criteria;
• **Self- and peer assessment** are used frequently to encourage students to understand and internalize the success criteria; and
• **Collaboration** in the classroom creates a culture in which teachers and students are partners in learning.
Formative Assessment within a District’s Comprehensive Assessment System

In order to better understand formative assessment’s role in a comprehensive assessment system, participants need to know how it should be integrated with current methods of assessment in their classroom and district. A comprehensive assessment system may consist of in-the-moment formative assessment, common formative assessments, benchmark or interim assessments, and annual assessments—each administered for a different purpose and often varied audiences.

There are resources for you in Appendix C. On page 16 in Appendix C, Herman and Heritage use a cone diagram to visually portray the different types of assessment, e.g., from minute-by-minute, formative assessment to annual, summative assessments. “Unpacking the Cone Diagram” on the following page describes the differences among elements of a comprehensive assessment system. For example, common formative assessments, developed by teachers and administered to classes for the purpose of regrouping for instruction, re-teaching, or enrichment, are more formative than large-scale accountability assessments, such as NECAP, which are summative. Grading, which usually measures student progress after instruction on a particular learning goal, is summative.

Formative assessment provides feedback to students and teachers to make ongoing adjustments in their learning or instructional practice. The results of large-scale accountability assessments are used by administrators, the public, and policy makers to drive decisions at the school, district, and state level.

On page 18 in Appendix C, Brookhart displays the major elements of a comprehensive system from more formative to more summative and from more classroom-focused to more large scale in a quadrant. On the following page, she shows the relative emphasis and time teachers should devote to each type of assessment (Brookhart, 2011).

Research Evidence on Impact of Formative Assessment Is Compelling

The evidence supporting formative assessment comes from a spectrum of researchers approaching it from different perspectives. The handout entitled “Research Worth Knowing” on pages 20-24 in Appendix C offers abstracts on research on formative assessment highlighting:

- Black and Wiliam, 1998 – Formative assessment is an integral part of classroom instruction and its implementation can significantly improve students’ learning outcomes, particularly for low achievers.
- Brookhart, 2010 – An examination of how a formative assessment professional development program impacted remedial reading teachers’ classroom practices and students’ learning found that teachers began to see formative assessment as a type of instruction, and noticed
improvements in student engagement. Results also showed that students of teachers who participated in the formative assessment professional development showed greater gains.

- Hattie and Timperley, 2007; Sadler, 1989 and 1998; and Shute, 2008 – Meta-analyses revealed that feedback given by teachers to students in the course of formative assessment has a strong positive effect on learning.

- Bangert-Drowns, Kulik, Kulik, and Morgan, 1991; and Kluger and DeNisi, 1996 – Feedback designed to improve learning is more effective when it is focused on the task and provides the student with suggestions, hints, or cues, rather than offered in the form of praise or comments about performance.

- Sadler, 1989 – Feedback in formative assessment is only feedback when it is used to alter the gap between a student’s current learning status and desired learning.

- Torrance and Pryor, 2001 – Investigation of formative assessment practices in a more applied and practical setting found that in order to improve formative assessment practice, teachers must have the opportunity and ability to reflect on their own classroom practices, particularly questioning and feedback strategies. They concluded that a collaborative action research approach is an effective way to help teachers understand and apply formative assessment theory to their classroom practice.

- Vygotsky, 1978 – The distance between what a child can do with the guidance of a more experienced peer or adult, and what the child can do during independent work is the zone of proximal development (ZPD). In formative assessment, feedback becomes a mechanism for supporting students to work effectively within their ZPD and move toward more independent work.

Research has also shown that the effectiveness of formative assessment is dependent upon the implementation of a rich curriculum, deep domain knowledge, and pedagogical content knowledge on the part of teachers (Heritage, Kim, Vendlinski, & Herman, 2009; Shepard, 2005). Other factors are skill with implementation of formative assessment (Furtak, Ruiz-Primo, & Shemwell, 2008) and an ability to come to plausible interpretations of students’ responses based on their developmental levels and experiences (Black & Wiliam, 2009). However, research shows that teachers may succeed in gathering learning evidence and accurately interpret a student’s gap in learning, but not be able to target and implement specific instructional steps to close the learning gaps (Herman, Osmundson, Dai, Ringstaff, & Timms, 2011).
Agenda for Module 1 Community of Practice

Communities of practice are formed by people who are engaged in a process of collective learning around a topic of interest, in this case, formative assessment. As the facilitator, your role is to provide opportunities for participants to reflect on their learning from the online course, deepen their understanding by discussing their learning, and determine how to embed formative assessment in their instructional practice.

The learning goals and success criteria for the first 90-minute meeting of your Community of Practice are offered below. A participant agenda and an annotated facilitator’s agenda, which describes the purpose, outcome, and approximate duration of each activity, the facilitator’s tasks, and the set-up required, follow.

Learning Goals for the CoP Meeting on Module 1

- Deepen and extend my understanding of formative assessment
- Begin to understand what changes need to occur in my practice and what impact formative assessment will have on my team’s practice
- Understand formative assessment’s position in my classroom’s and my team’s comprehensive assessment system

Success Criteria for the CoP Meeting on Module 1

- I can explain the key ideas in the state’s definition of formative assessment to colleagues.
- I can recognize the changes that formative assessment requires in my practice and that of my team.
- I can explain and visually depict the place of formative assessment in my classroom’s and my team’s comprehensive assessment system.
Participant Agenda for Module 1 CoP Meeting

**Learning Goals:**
- Deepen and extend my understanding of formative assessment
- Begin to understand what changes need to occur in my practice and what impact formative assessment will have on my team’s practice
- Understand formative assessment’s position in my classroom’s and my team’s comprehensive assessment system

**Success Criteria:**
- I can explain the key ideas in the state’s definition of formative assessment to colleagues.
- I can recognize the changes that formative assessment requires in my practice and that of my team.
- I can explain and visually depict the place of formative assessment in my classroom’s and my team’s comprehensive assessment system.

<table>
<thead>
<tr>
<th>Upon arrival</th>
<th>Explore Our Learning from the Online Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose: Identify what I understand from Module 1, what is unclear, and what topics I would like to discuss with my colleagues to develop a common understanding of formative assessment.</td>
<td></td>
</tr>
<tr>
<td>Outcome: Identification of topics that I need to explore and discuss with the CoP to have a clear understanding of the content in Module 1.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15 minutes</th>
<th>Getting Started</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose: Establish purposes of online course and CoP meetings, review learning goals and success criteria for the meeting, and identify areas needing more attention.</td>
<td></td>
</tr>
<tr>
<td>Outcome: List of concerns, questions, or topics that need more exploration or discussion by our community of practice (CoP).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15-20 minutes</th>
<th>Deepen Understanding of Key Content in Relation to Current Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose: Develop a shared definition of formative assessment.</td>
<td></td>
</tr>
<tr>
<td>Outcome: Clearer understanding of which of my practices align with state’s definition of formative assessment and recognition of the changes in practice that I and/or my team will need to undertake.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>30-40 minutes</th>
<th>Integrating Key Concepts with Our Current Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose: Understand how formative assessment is part of a comprehensive approach to data use in my classroom and in my team. Begin exploring what needs to change to reach Brookhart’s useful balance in my classroom and in my team.</td>
<td></td>
</tr>
<tr>
<td>Outcome: A road map of what assessment practices we, as individuals and as a team, need to do “more of” or “less of” to reach balanced assessment practices.</td>
<td></td>
</tr>
</tbody>
</table>
| 5 minutes | **Notice What’s Changing, What’s New**  
*Purpose:* Reflect on my learning.  
*Outcome:* Understanding how my thinking is changing and what in my practice might need to change. |
|-----------|--------------------------------------------------------------------------------|
| 5 minutes | **Agree on Next Steps**  
*Purpose:* Identify what is still unclear from Module 1 and what needs more discussion in the group to reach a common understanding, answer any questions I might have regarding the homework assignment at the end of Module 1, and begin to think of a unit I/we plan to teach in 2-3 months in which I’ll/we’ll incorporate formative assessment processes.  
*Outcome:* List of concepts that need more discussion and, before the conclusion of Module 2, the identification of a unit I’ll/we’ll be teaching in which I’ll/we’ll integrate formative assessment processes. |
| 5 minutes | **Evaluation**  
*Purpose:* Gather feedback to assist facilitator in planning the next session. |
<table>
<thead>
<tr>
<th>Time Alotted</th>
<th>Purpose/Outcomes</th>
<th>Facilitator’s Tasks</th>
<th>Set-up</th>
</tr>
</thead>
</table>
| As arriving  | **Explore Participants’ Learning from Online Course**                             | Greet participants as they arrive and ask them to review the notes on their CoP prep form (see Appendix A), highlight one thing in each column that they would like to share, record each on a separate sticky, and post them in the appropriate column on the chart paper. (Other options: chart them or have participants share them orally.) *Note: This activity will be repeated throughout the five CoP meetings, and returned to at the end of each session when questions not yet answered are starred. In effect, this repetitive process will chart the CoP’s progress over time.* | Post large sheet(s) of chart paper with three columns headed:  
  - What’s clear?  
  - What’s not clear?  
  - What would I like to spend time talking to colleagues about to develop a common understanding?  
  Place post-it stickies on tables. |
| 15 minutes   | **Getting Started**                                                              | Review purposes of online course, answer participants’ questions.  
Review agenda, learning goals, and success criteria for the CoP meeting; answer participants’ questions.  
Facilitate group review of the responses to the three questions asked upon arrival at the meeting. Note common responses and identify areas needing more attention (see Appendix D for extended learning activities to recommend to the group or individuals). | Post purposes of the online course on chart paper or display on PowerPoint slide.  
  - To deepen and extend understanding of key concepts in modules  
  - To determine how what you/we are learning is different from what you/we are doing in our classroom/school  
  - To integrate formative assessment into one lesson or unit in your classroom or team  
  - To reflect on the impact of changing practice on classroom culture and student performance  
Post agenda, learning goals, and success criteria for CoP meeting on chart paper or show on a PowerPoint slide. |
<p>| 15-20 minutes| <strong>Deepen Understanding of Key Content in Relation to Current Context</strong>           | Review the CCSSO’s/state’s definition of formative assessment. Ask participants to take | Post the CCSSO’s/state’s definition of formative assessment on chart paper or a PowerPoint |</p>
<table>
<thead>
<tr>
<th>Time Allocated</th>
<th>Purpose/Outcomes</th>
<th>Facilitator’s Tasks</th>
<th>Set-up</th>
</tr>
</thead>
</table>
| 10–12 minutes  | *Purpose:* Develop a shared definition of formative assessment.  
*Outcome:* Clearer understanding of teacher practices that align with the state’s definition of formative assessment and the changes in practice that may/will need to be undertaken. | an index card or half-sheet of paper and answer the questions on chart paper or a PowerPoint slide.  
After a few minutes, ask participants to turn to a colleague on their right and share their thoughts with each other. Ask them to be ready to report out a key thought or question to the larger group.  
Facilitate sharing of responses from two or three pairs. Collect participants’ responses for future planning. | slide – *Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students’ achievement of intended instructional outcomes (CCSSO, 2008).*  
Post the following questions on chart paper or display on a PowerPoint slide:  
• As I think about what I learned in this module, what am I currently doing that aligns with the state’s definition of formative assessment?  
• When I compared my practice to that of teachers in the videos, what similarities and differences did I notice?  
• What do I wonder? What am I concerned about?  
• What kind of support do I need to make that change?  
Have 5”x8” index cards or half-sheets of paper on each table. |
| 30–40 minutes  | **Integrating Key Concepts with Our Current Practice**  
*Purpose:* Understand how formative assessment is part of a comprehensive approach to data use in their classroom and school.  
Begin process of exploring what needs to change to reach Brookhart’s useful balance in their classroom and in their team/school.  
*Outcome:* Facilitator and group have road map of what assessment practices they will need to Review Brookhart’s “Useful Balance” four-square (see page 19 in Appendix C). Give participants a blank four-square sheet and ask them to reflect on the relationship between Brookhart’s thinking on assessment practices and their own and to depict their assessment practice on the blank four-square sheet.  
Set up next activity: Regroup participants in trios, quads, or teams to review their representations of the balance of assessments in use in their classrooms and to create one for their team. | | Display PowerPoint slide of Brookhart’s “Useful Balance.” Post the following on chart paper:  
• What is the relationship between Brookhart’s thinking and my practice?  
• Draw a four-square template that represents assessment practice in my classroom for a full year.  
Have enough 8 ½’ x 11” sheets of paper with lines of the quadrant on it for each participant.  
Post directions for trios, quads, or teams on chart paper or a PowerPoint slide: |
<table>
<thead>
<tr>
<th>Time Allotted</th>
<th>Purpose/Outcomes</th>
<th>Facilitator’s Tasks</th>
<th>Set-up</th>
</tr>
</thead>
</table>
| do more of or less of to reach balanced assessment practices in their classroom and school. | Assist in posting of the trios’, quads’, or teams’ four-square diagrams. Facilitate the large group’s discussion of:  
- The commonalities and differences between the teams’ four-square diagrams; and  
- What do the results mean for the school’s implementation of formative assessment practices? Ask participants to think about:  
- One thing they will be doing more of; and  
- One thing they will be doing less of in the next three months to achieve a balanced assessment frame similar to Brookhart’s. | • Review your individual four squares.  
• Develop a “Useful Balance” four square for your team.  
• Discuss what your team would need to do to have an assessment frame similar to Brookhart’s four square.  
• Review and, if necessary, revise your earlier thinking on the type of support your team would need to make those changes.  
Have one sheet of post-it chart paper for each team to record its representation of its future balance of assessment practices. Prepare chart paper with one column headed “More of” and one headed “Less of,” and post on wall. |
| 5 minutes | Optional Activity  
**Purpose:** Pair each CoP teacher with someone from the CoP or with their grade-level or content-area team for deeper reflection and sharper implementation in the CoP’s activities—collaborative learning. | Explain the why behind this request—it is helpful to share mutual reflections on your learning as you move through the modules and embed formative assessment into your instructional practice. |  |
| 5 minutes | **Notice What’s Changing, What’s New**  
**Purpose:** Individually reflect on their learning.  
**Outcomes:** Individual understanding of how CoP members’ thinking is changing, and information for the facilitator as to where each participant is and needs to move. | Ask participants to respond to a reflective prompt: “I used to think and now I think…” Facilitate sharing of reflections from two or three participants. Collect index cards, review responses after the session, and use in planning next session. | Post reflective question on chart paper.  
Index cards on tables. |
| 5 minutes | **Agree on Next Steps**  
**Purpose:** Identify what is still unclear or needs | Facilitate group’s review of responses to the initial activity. Place a star in front of items that need further discussion. | Chart paper from first activity. |
<table>
<thead>
<tr>
<th>Time Allocated</th>
<th>Purpose/Outcomes</th>
<th>Facilitator’s Tasks</th>
<th>Set-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>more discussion from the initial activity and share appropriate extended learning opportunities with individuals or the CoP (see Appendix D).</td>
<td>need more clarification or discussion. Inform participants that this information will be used to plan the next session and to address individual needs. If appropriate, share the most relevant extended learning opportunity with individuals or the CoP (see Appendix D).</td>
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<tr>
<td></td>
<td>Check to make sure that participants understand their homework assignment from Module 1.</td>
<td>Ask participants if they have questions about the assignment at the conclusion of Module 1, i.e., to complete the first page of the formative assessment lesson planning template and develop a learning progression for a unit with which they are very familiar. Review and record agreed-upon next steps.</td>
<td></td>
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<tr>
<td></td>
<td>Forecast need for identification of a future unit in which participants will integrate formative assessment processes.</td>
<td>Let participants know that, during the next two modules, they will be working in pairs or in teams to incorporate formative assessment processes into a unit they plan to teach in 2-3 months. As the facilitator, you may have to help participants organize themselves into pairs or a group.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Outcome:</strong> List of aspects of Module 1 that need more discussion.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 5 minutes      | **Evaluation**  
**Purpose:** Gather feedback to assist you in planning the next meeting.                                                                                                                                                                                        | Ask participants to complete the evaluation form to help you plan for the next session.                                                                                                                                 |        |
| 75-90 minutes  |                                                                                                                                                                                                                                                                         | A copy of the evaluation form is on page 25 in Appendix C for each participant.                                                                                                                                 |        |
| total          |                                                                                                                                                                                                                                                                         | |        |
Appendix A: My Initial Reflections on Module 1

Exploring the Foundations of Classroom Formative Assessment

Name: ______________________________________________

<table>
<thead>
<tr>
<th>What’s clear</th>
<th>What’s not clear</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What would I like to spend time talking to colleagues about to develop a common understanding?

<p>| | |</p>
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<th></th>
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</table>
Appendix B: Frequently Asked Questions/Misconceptions with Suggested Responses

To assist you in supporting members of your Community of Practice, we have compiled a few of the most common questions and misconceptions at this stage with recommended responses.

Q: Isn’t formative assessment a test?
A: Formative assessment is a process that links instruction and assessment. It provides teachers and students with data that identify where students are in their learning related to a specific learning goal and helps students to move their learning forward. It is not usually a pen and paper test, but rather an observation using a rubric, a discussion with a student as he shares his thinking on solving a problem, or a series of questions that help the teacher understand a specific student’s grasp of a key concept.

Q: Isn’t formative assessment “just good teaching”?
A: Formative assessment is really quite different from traditional teaching practices as it links instruction and assessment. It is grounded in learning progressions, learning goals, success criteria, descriptive feedback, and collaboration between student and teacher. Good teachers may already use some of the key elements of formative assessment, but formative assessment provides a framework and more intentional practices around the key elements of the work: planning on how to collect evidence, collecting evidence, and using evidence with students.

Q: Doesn’t formative assessment just involve adding new strategies to my teaching practices?
A: No, formative assessment links instruction and assessment, so teachers need to carefully determine how they will collect evidence and how it will be used as they plan lessons/units. The evidence gathered by a student and the teacher allows something to be formed from it, e.g., next steps in learning for a student or an adjustment in instructional practice for a teacher.

Q: How is formative assessment different from common formative assessment?
A: Typically, common formative assessments are paper and pencil tests developed by teacher teams who collectively review the resulting data to adjust instruction within a unit. They may use the data to regroup students—identifying those students who need re-teaching of a concept or skill and those who are ready for enrichment. This process helps a group of teachers to align their instruction, develop common data use practices, and create shared agreements about how to address instructional issues. Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning. It focuses on a single learning goal, and does not usually involve a paper and pencil test.

Q: How is formative assessment different from benchmark assessments?
A: Benchmark assessments are interim assessments that focus on multiple standards and are usually administered to all students in the same grade or course within a school or district at prescribed intervals. Their purpose is to determine student mastery of standards within an identified time frame
and to identify strengths and gaps in curriculum and instruction. Benchmark assessment data are designed to be aggregated beyond the classroom and used for data-driven decisions throughout the school or district.

**Q: Can summative data be used formatively?**
**A:** Formative assessment is a process that results in data that are used immediately to provide feedback to students. Summative data usually result from a common classroom, benchmark, or annual assessment once an instructional cycle has been completed. The data are often not available to teachers or students until days, weeks, or even months after the assessment. Results of summative assessments are more often used to drive decisions at the school, district, or state level.

**Q: Isn't formative assessment a set of engagement strategies?**
**A:** Although formative assessment makes students active agents in their own learning, it is not a set of engagement strategies. It is a process that provides feedback to students and teachers on the knowledge and skills a specific student has or has not acquired and leads to next steps in that student’s learning. An engagement strategy effectively involves students in classroom activities, but does not offer evidence to the teacher or student about next steps in learning.

**Q: Isn't the only definitive research underlying formative assessment contained in the article, “Inside the Black Box,” by Black and Wiliam?**
**A:** There is a significant research base supporting formative assessment from a variety of disciplines, e.g., cognitive theory, learning research, psychosocial. Research syntheses provide consistent agreement about the power of formative assessment practices when fully employed. (See handout entitled “Research Worth Knowing” on pages 20-24 in Appendix C.)
Appendix C: Resources and Evaluation Form
Sources of Assessment Data
Taking a closer look at the Assessment Cone

Source:
Herman & Heritage (2007)
Moving from Piecemeal to Effective Formative Assessment
Used with permission
## Unpacking the Cone Diagram

<table>
<thead>
<tr>
<th>Type of feedback</th>
<th>In the moment assessment</th>
<th>Daily-weekly assessment</th>
<th>Common formative assessment</th>
<th>Quarterly benchmark/interim/diagnostic assessment</th>
<th>Annual summative assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative, if used to guide or change students’ learning tactics or teachers’ instruction</td>
<td>Formative, if used to guide or change students’ learning tactics or teachers’ instruction</td>
<td>Formative, if used to adjust instruction within instructional cycle</td>
<td>Summative</td>
<td>Evaluative</td>
<td></td>
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<tr>
<td>Journals Questioning Exit tickets Short answer Voting cards Concept maps Observations Ungraded work</td>
<td>Projects Weekly quizzes Short writing assignments Labs Essays Peer assessment Self assessment Self assessment Rubric analysis</td>
<td>Rubrics Written assessments Short answer Multiple choice Essay Performance assessment</td>
<td>Short answer Multiple choice Essay Performance assessment Graded class work</td>
<td>Short answer Multiple choice Essay End of course examples</td>
<td></td>
</tr>
<tr>
<td>Teachers and students use descriptive information to guide next steps in learning</td>
<td>Teachers and students use descriptive information to guide next steps in learning</td>
<td>Teacher teams clarify specific content/skills for additional instructional time Regrouping strategies</td>
<td>School leadership teams, teacher teams to clarify big picture view of student progress Determine specific intervention needs</td>
<td>Schools Districts Public</td>
<td></td>
</tr>
<tr>
<td>How can I adjust instruction tomorrow? Did I reach all learners? What did my students deeply understand?</td>
<td>Have students made progress over the course of the week? Have my daily assignments supported students to meet the learning goals?</td>
<td>Who needs additional support? How far along are students toward mastery? Which content/skills require additional coverage?</td>
<td>What are proficiency levels of students? What are specific supports for at-risk students? Are systemic interventions needed?</td>
<td>Programmatic strengths, programmatic changes</td>
<td></td>
</tr>
<tr>
<td>Focus on single learning goal “Single purpose”</td>
<td>Focus on single learning goal or single standard</td>
<td>Focus on single standard or a closely related set of standards taught in a single unit</td>
<td>Focus on multiple standards</td>
<td>Focus on wide range of standards covered through year</td>
<td></td>
</tr>
<tr>
<td>Provide descriptive feedback to guide next steps in student learning</td>
<td>Teacher engages students in using feedback to monitor learning and set learning goals</td>
<td>Build a shared understanding of what quality work looks like amongst teachers, explore instruction options to support next steps</td>
<td>Determine mastery Indicate strengths and gaps in curriculum and instruction</td>
<td>Institutional Accountability</td>
<td></td>
</tr>
</tbody>
</table>
Susan Brookhart
October 20, 2011
MARCES Assessment Conference

Interim/Benchmark assessments
(PROGRESS monitoring, intervention assessments)

Classroom formative assessment
(eliciting evidence of learning to improve student achievement)

Large-scale accountability assessments
(School, district, state, national, international)

GRADING
Classroom Summative Assessments
Report cards

More formative

Interim/Benchmark assessments

More large scale

Classroom formative assessment

More summative

More classroom focused
Useful balance:

CLASSROOM FORMATIVE ASSESSMENT

BENCHMARK/INTERIM

ACCOUNTABILITY

GRADING

Presented by Susan Brookhart
October 20, 2011
MARCES Assessment Conference
FORMATIVE ASSESSMENT

Research Worth Knowing
Leading Formative Assessment Research

Paul Black and Dylan Wiliam – Inside the Black Box


Black and Wiliam argue that formative assessment is an integral part of classroom instruction and that its implementation can significantly improve student learning outcomes. The authors begin by examining whether or not there is research showing that improvements to formative assessment practices in the classroom raise standards, and they find that students who experience formative assessment strategies, particularly low achievers, demonstrate significant learning gains. Black and Wiliam also provide numerous suggestions on how to improve formative assessment practices in the classroom (e.g., train students in self-assessment, provide specific and reflective feedback, give students the guidance to improve their performance, etc.). Overall, the authors maintain that formative assessment is essential to effective teaching.

Paul Black and Dylan Wiliam – Working Inside the Black Box
(Follow-up to original study)


In this follow-up to their "Inside the Black-Box," the authors report on their efforts to gather evidence about how to improve classroom formative assessment. In order to carry out this work, the authors conducted a study of the implementation of formative assessment concepts in practice with 24 secondary school mathematics and science teachers in England. Through the use of improved questioning techniques, feedback focusing on how to improve rather than grading, involvement of students in peer assessment and self-assessment, and the use of summative assessments in a formative way, teachers found that the motivation and attitudes of their students improved, and the students achieved higher scores on tests than their peers in the same schools. Changes brought also prompted teachers to increase their knowledge and use of learning theory and to develop assessment strategies appropriate for their subject matter. The authors conclude with suggestions for teachers.
to enhance student learning, including rethinking lesson planning and redefining their roles and expectations.

**Royce Sadler – The Just Right Gap**


Sadler’s (1989) analysis and research delved into the instructionally appropriate way of making effective qualitative judgments using formative assessment techniques. Sadler submits that formative assessment is a process to identify and close the gap between a student's current and desired learning. Students must be able to monitor and modify their working and thinking in the midst of their working and thinking. Because much that students do cannot easily be labeled correct or incorrect, this demands three abilities from students: 1) knowing what desired work looks like; 2) comparing their current performance with the desired performance; and 3) taking action to close the gap.

Identifying the right gap is critical. If the learner perceives the gap as too large, the goal may be regarded as unattainable. Conversely, if the gap is perceived as too small, closing it might be considered not worth any additional effort. The teacher can play a role in identifying the right gap, but the ultimate goal should be to have the student set, internalize, and adopt the goal, so that there is some determination to reach it. Developing the capacity of students to perform this work removes the ceiling on what students are capable of performing, in part by freeing students from reliance on the teacher.

**Hattie and Timperley - Feedback**


This article synthesizes 12 previously reported meta-analyses of feedback, covering 196 studies, on the effect of feedback on student achievement. The authors found considerable variability in the effect of feedback depending on implementation and context. The authors organize feedback into four categories: feedback directed at the task, the processing of the task, self-regulation, and the student as an individual. They find that feedback aimed at the task, processing, and self-regulation are generally beneficial and that assessment should offer a balance of feedback across these categories.

"The indispensable conditions for improvement are that the student comes to hold a concept of quality roughly similar to that held by the teacher, is continuously able to monitor the quality of what is produced during the act of production itself, and has a repertoire of alternative moves or strategies from which to draw at any given point" (Sadler, 1989, p. 121).

"Formative assessment is concerned with how judgments about the quality of student responses (performances, pieces, or works) can be used to shape and improve the student’s competence by short-circuiting the randomness and inefficiency of trial and error learning” (Sadler, 1989, p.120).

"A key premise is that for students to be able to improve, they must develop the capacity to monitor the quality of their own work during actual production” (Sadler, 1989, p. 119).
levels. Looking at the types of feedback, findings show an average effect size of 0.79. Feedback directed at the self level, however, is the least effective. The most common feedback in the classroom, their research finds, targets feedback at the self and task levels.

**Lev Vygotsky – The Zone of Proximal Development**


The zone of proximal development (or ZPD), originally coined by Vygotsky, is defined as the distance between what a child can do with the guidance of a more experienced peer or adult and what the child can do during independent work. Vygotsky’s research raised an important idea in formative assessment theory, that what a child can do with the assistance of others is even more indicative of their learning than what they can do alone. What a child can do today with help, a child can then do in the near future independently. The teacher’s task, then, is rooted in working collaboratively with the child to understand their emergent knowledge, and, through collaboration and guidance, support students toward increasingly independent performance.

In formative assessment, feedback becomes a mechanism for supporting students to work effectively within their zone of proximal development. In other words, feedback, which provides clues or ideas about next steps in learning for the child, supports growth of emerging structures. In this way, formative feedback becomes an instructional scaffold – an approach that helps students move towards more independent work.

**National Research Council – Knowing What Students Know**


“Specific learning goals focus students' attention, and feedback can be directed to them. The goals and associated feedback include information about the criteria for success in attaining them” (Hattie & Timperley, 2007).

“Feedback should be clear, purposeful and meaningful, compatible with students' prior knowledge, and provide logical connections. It should prompt active information processing on the part of learners and relate to clear and specific goals” (Hattie & Timperley, 2007).

“…an essential feature of learning is that it creates the zone of proximal development; that is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers” (Vygotsky, 1978).
An authoritative text on assessment grounded in research in cognitive and measurement sciences, this book offers guidance for policy, research, and practice that spans classroom and large scale contexts. Its recommendations include supporting “the development of new systems of multiple assessments that would improve their ability to make decisions about education programs and the allocation of resources” and shifting “the balance of mandates and resources” “from an emphasis on external forms of assessment to an increased emphasis on classroom formative assessment designed to assist learning.” Also among the coverage is the fact that “every assessment, regardless of its purpose, rests on three pillars: cognition, observation, and interpretation.”

Kluger and DeNisi – Feedback


This meta-analysis reviews findings from 131 research studies related to feedback. Results of the meta-analysis reveal many inconsistent findings related to the effect of feedback on student performance. The researchers conclude that feedback effects are moderated by the nature of the learning task. A key finding from the analysis is that on the balance, feedback has a positive impact on student learning (effect size 0.38), but four times out of ten feedback affects student learning negatively. The authors note that feedback harms achievement when it focuses on one’s self-esteem or self-image.

Torrance and Pryor – Using Action Research for Professional Development in Formative Assessment


This study builds on Torrance and Pryor’s previous findings on

“One of the most important roles in assessment is the provision of timely and informative feedback to students during instruction and learning...” (NRC, 2001, p. 87).

“Every assessment, regardless of its purpose, rests on three pillars: a model of how students represent knowledge and develop competence in the domain, tasks or situations that allow one to observe students’ performance, and an interpretation method for drawing inferences from the performance” (NRC, 2001, p. 2).

“Students are more likely to increase their effort to learn when the intended learning goal “is clear, when high commitment is secured for it, and when belief in eventual success is high” (Kluger & DeNisi, 1996, p. 260).

“Feedback to students should be descriptive and criterion-based as opposed to a judgment or grade with no indication of how to improve” (Kluger & DeNisi, 1996).
formative assessment by investigating its practices in a more applied and practical setting. The researchers also evaluate the effectiveness of a collaborative action research approach to professional development designed to improve teachers’ classroom assessment practices. Overall, the researchers find that in order to improve formative assessment practice, teachers must have the opportunity and ability to reflect on their own classroom practices, particularly questioning and feedback strategies. Torrance and Pryor conclude that a collaborative action research approach is an effective way to help teachers understand formative assessment theory and apply it to their classroom practice.

Brookhart – Professional Development for Formative Assessment


The purpose of this study was to examine how a formative assessment professional development program impacted remedial reading teachers’ classroom practices and students’ learning. Researchers examined teacher professional development activities including online postings, meeting notes, observation notes from district supervisors, student work samples, and student performance on a reading readiness measure. Results indicated that teachers showed greater mindfulness regarding formative assessment practices, increased record-keeping, more specificity in feedback, and a greater understanding of the importance of student involvement and motivation. Teachers also began to see formative assessment as a type of instruction, and noticed improvements in student engagement. Results showed that students of teachers, who participated in the formative assessment professional development, showed greater gains.

Asking genuine questions "seems to be a crucial factor when teachers are eliciting a response from pupils that not only provides insight into their current state of understanding, but is also potentially useful in stimulating future learning. Such situations seem to provide a context where pupils interpret questioning as genuine and attend to the principles at stake rather than the ritual of question and answer" (Torrance & Pryor, 1998, p. 129).

"...the zone of proximal development is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86).
**Consider the following before and after questions, which help us better understand your background knowledge:**

<table>
<thead>
<tr>
<th></th>
<th>Mostly unfamiliar</th>
<th>Somewhat unfamiliar</th>
<th>Somewhat knowledgeable</th>
<th>Very knowledgeable</th>
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</thead>
<tbody>
<tr>
<td>Before this CoP meeting, my knowledge of formative assessment research was...</td>
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<tr>
<td>After this CoP meeting, I would characterize my knowledge of formative assessment research as...</td>
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<tr>
<td>Before this CoP meeting, my knowledge of using classroom formative assessment to improve instruction was...</td>
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<tr>
<td>After this CoP meeting, I would characterize my knowledge of using classroom formative assessment to improve instruction as...</td>
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<td>Before this CoP meeting, my knowledge of how formative assessment fits in with a comprehensive approach to school-wide data use was...</td>
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<tr>
<td>After this CoP meeting, I would characterize my knowledge of how formative assessment fits in with a comprehensive approach to school-wide data use as...</td>
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<tr>
<td>Before this CoP meeting, the knowledge I had about the elements of the formative assessment process was...</td>
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<td>After this CoP meeting, the knowledge I have about the elements of the formative assessment process is...</td>
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</table>

**Please clarify what you would change about today’s session or where you are seeking additional support:**

1. To move my own learning forward in formative assessment, I could use continued support in the following:

2. What didn’t work for me (or what I would change) from today’s CoP meeting:
Appendix D: Extended Learning Opportunities

Tracking Changes Over Time

Ask teachers to keep a journal through their CoP experience, and provide time in each session for them to record what they are learning, thinking about, wondering, or excited by. It could also be used to capture their learning from experimenting with changes in their practice, e.g., what they tried each day, how they addressed challenges, and how formative assessment is impacting student learning.

Challenged by Definition of Formative Assessment

If participants or teams are having trouble understanding the definition of formative assessment, they might find it helpful to watch one of the following videos. After viewing the video, they can discuss with a colleague(s) what resonates with their current practice, what is different, and how they might incorporate what is new into their practice.

- **Secondary Assessment: Effective Questioning** – A 14-minute video that could be a starting point for a discussion of formative assessment and some of its key features and/or to focus on a feature (e.g., questioning, feedback, or peer or self-assessment) and how teachers think it might be implemented in their classroom: [http://media.ride.ri.gov/PD/AssessmentLiteracy/M3L2_Secondary_Assessment_Effective_Questioning_Teachers_TV.wmv](http://media.ride.ri.gov/PD/AssessmentLiteracy/M3L2_Secondary_Assessment_Effective_Questioning_Teachers_TV.wmv)

  Paul Black and Christina Harrison, with assistance from two teachers, discuss formative assessment and three of its features: questioning, feedback through comments rather than grades, and peer and self-assessment.


Challenged by the Relationship between Formative Assessment and Instruction

If participants or teams are having difficulty visualizing how formative assessment and instruction are linked, they could watch one of the videos described below with a colleague(s) and discuss the role of the teacher and the student in these classrooms. How are their roles alike or different from those in their own classroom?
• **Peer-to-Peer Assessment** – A four-minute video that shows high school students working on three levels of math examples with students solving and justifying their solutions to peers ([http://archive.teachfind.com/teachers-tv/peer-to-peer-assessment](http://archive.teachfind.com/teachers-tv/peer-to-peer-assessment)).

• **Primary Assessment for Learning—Speaking and Listening: Year 1** – A 15-minute video in which a teacher begins work on formative assessment in the early grades. Students are learning how to develop skills to look for key qualities in student work (success criteria), and are starting to learn how to give feedback to peers based on success criteria ([http://archive.teachfind.com/teachers-tv/primary-assessment-learning-speaking-and-listening-year-1](http://archive.teachfind.com/teachers-tv/primary-assessment-learning-speaking-and-listening-year-1)).

**Challenged by Formative Assessment’s Role in a Balanced Assessment System**

If participants are having difficulty in understanding formative assessment’s role in a balanced assessment system or the imperative for formative assessment, they can read the following 14-page article available through the RIDEmap portal and discuss its key themes with their team members or sharing partner in the CoP.


**In Search of More Information on Research Supporting Formative Assessment**

If participants would like additional information on the research supporting formative assessment, they may wish to read the following 13-page article available through the RIDEmap portal and discuss its key ideas with team members or sharing partner in the CoP.

References


