



# Module 4

## Eliciting and Interpreting Evidence

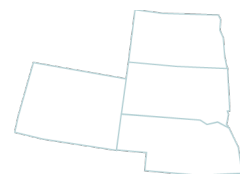
A Formative Assessment Program Created by  
The Assessment & Accountability Comprehensive Center  
and The North Central Comprehensive Center at McREL

### Facilitator's Guide



Assessment and Accountability  
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# Module 4

## Eliciting and Interpreting Evidence

### Overview of Module 4

This module is the fourth in a series of seven modules in the Formative Assessment Program. Participants will build on their understanding of the process of formative assessment, and learn about eliciting evidence of student learning, anticipating student responses, and how to keep track of the resulting information. Participants will have the opportunity to learn new material through a series of lessons, engage in processing activities to deepen their understandings, and consolidate their learning by applying new ideas and understandings about formative assessment in their own contexts through Try It Out activities.

### Module 4 Learning Goals

1. Understand why it is important to elicit evidence of student learning.
2. Understand the criteria for quality evidence.
3. Understand the importance of anticipating student responses.
4. Understand how to interpret evidence from formative assessment strategies and tasks.
5. Understand how to keep track of evidence.

### Module 4 Success Criteria

Participants can:

1. Explain why, when, and how strategies can be used to elicit evidence of student learning
2. Identify the components that are present in quality evidence
3. Identify a range of likely student responses to strategies and tasks
4. Accurately interpret evidence collected from formative assessment strategies and tasks
5. Describe how to keep track of evidence

### Main Message for Module 4

This module focuses on eliciting and interpreting evidence of student learning. A constant stream of information is produced as students are engaged in learning. Identifying in advance the strategies and tasks you will use to elicit evidence of students' thinking, as well the range of possible student responses, is critical to the process of formative assessment. There is no single most effective strategy to elicit evidence of student learning. To collect quality evidence, the strategy must be aligned with learning goals and success criteria. If not, the information generated may be of little use in making decisions about what students need next to keep learning moving forward. Analysis and interpretation of information is essential to the process. Teachers need current, up-to-date information on how learning is progressing. The analytic process guides teachers' decision making about what students need next. Developing a systematic approach to keep track of student learning

through observational notes, notebooks, and technology applications, makes the process of eliciting, analyzing and interpreting evidence of students' learning manageable and feasible.

### At a Glance

#### Presenting the Workshop

| Check When Complete | Lessons   | Materials and Handouts      |
|---------------------|---|-----------------------------|
|                     | Introduction to Module 4  | PPT Introduction 4          |
|                     | <b>Lesson 1</b><br><b>Eliciting Evidence</b><br><b>60 – 75 minutes</b>                  |                             |
|                     | Lesson 4.1  | PPT 4.1                     |
|                     | <b>Turn &amp; Talk:</b> Questions Worth Asking  | Discussion questions on PPT |
|                     | <b>Your Turn:</b> Strategies for Eliciting Evidence                                     | Discussion questions on PPT |
|                     | <b>Consolidate Your Learning:</b> Formative Assessment Strategies                       | Handout 4.1.1               |
|                     | <b>Try It Out:</b> Formative Assessment Strategies                                      | Handout 4.1.1               |
|                     | <b>Lesson 2</b><br><b>Five Components of Quality Evidence</b><br><b>60 minutes</b>      |                             |
|                     | Lesson 4.2  | PPT 4.2                     |
|                     | <b>Your Turn:</b> Quality Evidence (Steps 1-3)  | Handout 4.2.1               |
|                     | <b>Consolidate Your Learning:</b> Quality Evidence (Step 4)                             | Handout 4.2.1               |
|                     | <b>Try It Out:</b> Quality Evidence   | Handout 4.2.1               |
|                     | <b>Lesson 3</b><br><b>Anticipating Student Responses</b><br><b>60 – 75 minutes</b>      |                             |
|                     | Lesson 4.3  | PPT 4.3                     |
|                     | <b>Your Turn:</b> Quality Evidence  | Handout 4.2.1               |
|                     | <b>Try It Out:</b> Quality Evidence   | Handout 4.2.1               |
|                     | <b>Lesson 4</b><br><b>Analyzing and Interpreting Evidence</b><br><b>60 – 75 minutes</b> |                             |

|  |  |                             |
|--|--|-----------------------------|
|  | Lesson 4.4   | PPT 4.4                     |
|  | <b>Your Turn:</b> <i>A Teacher Eliciting and Interpreting Evidence</i> (Video) | Video                       |
|  | <b>Consolidate Your Learning:</b> Analyzing Evidence                           | Handout 4.4.1               |
|  | <b>Try It Out:</b> Collect and Analyze Evidence                                | Discussion questions on PPT |
|  | <b>Lesson 5<br/>Keeping Track<br/>30 – 45 minutes</b>                          |                             |
|  | Lesson 4.5   | PPT 4.5                     |
|  | <b>Try It Out:</b> Use One Record-Keeping Strategy in Your Classroom           | Discussion questions on PPT |
|  | <b>Approximate Total Time: 5 hours</b>   |                             |

### Background Information

A central practice in formative assessment is teachers' collection of information about how learning is developing while instruction is underway. Erickson (2007) refers to a continual "taking stock" of learning by "paying first-hand observational attention to students during the ongoing course of instruction—careful attention focused upon specific aspects of a student's developing understanding and mastery of skills, as instruction is taking place in real time" (p. 187). Notice that Erickson does not refer to "taking stock" of learning by administering tests. The term "formative assessment" does not apply to a specific tool or measurement instrument, and while formal assessments may be used to gather information about learning, they are not the sole source. In fact, there is no single way to collect evidence of learning. Griffin (2007), for example, argues that humans can only provide evidence of cognitive and affective learning through four observable actions: what they say, write, make or do. These behaviors act as indicators of an underlying learning construct, and are the ways in which learning can be inferred by the observer. Whatever the source of the evidence, according to Sadler (1989) the role of the teacher is to construct or devise ways to "elicit revealing and pertinent responses from children" (p.80). These responses are then interpreted against the specifications of the learning goal and success criteria (covered in Module 3) so that teachers have the information they need about learning to make decisions about what to do next.

Interaction between the teacher and students has been characterized as one of the principal sources of evidence in formative assessment (Black & Wiliam, 2009; Harlen, 2007; Jordan & Putz, 2004; Ruiz-Primo & Furtak, 2006, 2007; Torrance & Pryor, 1998). More specifically, Black and Wiliam (2005) note that productive formative assessment strategies include questions designed by the teacher to explore students' learning, w generate teachable moments when teachers can intervene and further learning. Shavelson and colleagues (2008) suggests that to find the gap between what students know and what they need to know, teachers prepare a set of central questions "that get at the heart

of the learning goals for that day's lesson" (p. 301). Teachers ask these questions at the right moment during the class "and through a discussion the teacher can learn what the students know, what evidence they have to back up their knowledge, and what different ideas need to be discussed" (Shavelson, et al., 2008, p. 23).

In a related discussion, Harlen (2007) points out that it is not just the framing of the question that matters, but also the timing, particularly the time allowed for answering the question. Rowe (1974) found that teachers generally allow very few seconds for students to answer questions. As Harlen (2007) notes, this is very short even for questions that ask for recall, let alone for questions that demand students to provide explanations or express complex ideas.

In the context of student talk, Harlen (2007) contends that teachers gain insights about student thinking when they set up a situation in which students converse with each other while the teacher "listens in" without participating in the discussion. Of course, it is essential that the situation is well structured and promotes student exchanges of ideas so that their thinking is revealed.

Beyond questions, interactions, discussions and assessment conversations, there is a range of other sources of evidence. Bailey and Heritage (2008) suggest student read-alouds, strategic questions focused on the text, and written responses about text as ways to elicit evidence about students' learning in reading. Shavelson et al. (2008) refer to "embedded-in-the-curriculum" formative assessment, or assessments placed in the ongoing curriculum by teachers or curriculum developers at key junctures in a unit, designed to create goal-directed teachable moments. Learning tasks are also sources of evidence. For example, the approach of Cognitively Guided Instruction in mathematics (Carpenter, Fennema, & Franke, 1996; Carpenter, Fennema, Peterson, & Carey, 1988) provides students with learning tasks created from a model of student thinking in arithmetic which permit teachers "to 'read and react' to ongoing events in real time as they unfold during instruction" (NRC, 2001, p. 230); Kouba and Franklin (1995) propose that student representations, for instance, of division and multiplication situations and their explanations of the relationship among those representations can function as evidence; and Harlen (2007) suggests that students' products from well-designed tasks, for example, writing, drawings, and other artifacts, can be a rich source of evidence about their ideas and skills, providing that i) the task is set up so that they have to express their ideas, and ii) the teacher notices "the significant features of the work" (p. 120). Harlen (2007) also cautions that while student products can provide evidence, they rarely provide sufficient details about how certain skills have been used, noting that observation of how students are working can provide insights into their skills and attitudes. She suggests that observation can, for example, provide detail about how pupils make changes in their investigation of variables in science, and in mathematics how they read scales, draw graphs, and use number grids.

Although the practice of formative assessment does not inform high-stakes decisions as do the annual statewide assessments, the quality of formative assessment is nonetheless important. Teachers need to make sure that they are getting quality evidence that will enable them to make the best decisions they can about learning and that are likely to have positive consequences for students. Some considerations about assessment quality in formative assessment are:

- the assessment strategy should generate usable information about students' status in relation to the intended learning;
- the assessment strategy should be meaningful to students and situated in an authentic context;
- the assessment strategy should account for the range of students present in the class so that all students have the opportunity to show where they are in their learning;
- strategies should not include any elements that would prevent some students from showing where they are relative to goals, such as the use of language they cannot understand or images that could be offensive to certain subgroups of students;
- there should be sufficient information to be able to make a decision about next steps; and
- multiple sources of evidence can reveal different kinds of important learning.

Evidence gathering is a planned process and assessment tasks must have a place in the “rhythm” of the instruction (Black, Wilson & Yao 2011). This means that teachers should determine in advance at what points in the lesson they will need evidence to maintain the forward momentum of learning. Of course, this does not preclude actionable assessment opportunities arising spontaneously in the lesson (for example, when students say or do something that the teacher has not planned to initiate but which provides usable information about learning), but rather that evidence gathering should not be left to chance.

Once teachers have gathered the evidence, they need to interpret it in relation to what it reveals about where students are in their learning with respect to the learning goal. This means they will need to interpret the student response against their knowledge of what a fully formed understanding or skill would look like in the context of the task, or what a partial or fragmentary understanding looks like, or even a beginning, emergent understanding. Teachers' ability to make these kinds of interpretations will be dependent on the degree to which they have anticipated responses in advance. When planning the strategy to elicit evidence, it is important for teachers to anticipate the range of responses the strategy might produce among the students. This approach will also help teachers determine if the strategy is meeting the criteria related to assessment quality listed above; for example, if the selected strategy is accounting for the range of levels of likely understanding present among the students.

Finally, teachers will need to translate that interpretation into an appropriate pedagogical move to take the student's understanding to a more advanced state. Sometimes pedagogical decisions need to be made on the fly, so the interpretation of evidence and the subsequent pedagogical move may need to be made in the moment rather than at a later point of reflection.

Without the attempt to support or influence new learning from the evidence, the label “formative assessment” cannot be applied to the process of evidence gathering and interpretation.



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### *Additional Reading*

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### Essential Planning and Set Up

This section of the guide is provided to assist you in preparing to facilitate the learning sessions with your group. We know that the person selected to facilitate each team varies in background, skill and understanding of formative assessment, and have designed the information with the following assumptions. We assume that the facilitator:

- Will clearly communicate the expectations to the participants
- Has content knowledge
- Understands adult learning practices
- Includes all participants in the lesson delivery and activities
- Will clearly communicate schedules, logistics, what to bring to meetings, time commitment, and all other necessary information to participants
- Will follow up with individuals to help each participant grow in knowledge and skill, and meet their personal growth goals

### Essential Planning

Before the meeting:

- Read this Module 4: Eliciting and Interpreting Evidence Facilitator's Guide in its entirety and become familiar with the content and activities. Module 4 does not require participants to read any articles or journals.
- Complete the background reading on gathering evidence of student learning and determine what it means, as suggested in the previous section.
- Run through each lesson and activity yourself before presenting it to others.
- Determine how you would like the group to use the online handouts and readings – digitally with laptops, with printed copies of the PowerPoint and handouts that you provide, or that participants print the PowerPoint and handouts themselves.
- Complete Handout 4.1.2 – *Formative Assessment Strategies* before starting the module. You will want to have a completed chart to model for participants. You may also wish to complete the other handouts before starting the module work; it will help you to prepare and to anticipate the range of responses from your participants.
- Preview the Lesson 4 video and note how the teacher is eliciting and interpreting evidence.
- Collect one or more examples of record keeping to share with the group when working through Lesson 5. These examples can be from your own classroom or from other teachers with experience and good models to share.
- Now that you are prepared, be sure to establish and communicate the meeting times and place with participants.
- If possible, visit with each participant prior to the first meeting to find out where they are in their journey with formative assessment and the skills, knowledge and understanding they already bring to the group. It will be helpful to know what each participant's background is with using formative assessment strategies to gather evidence of student learning.

On the day of the meeting:

- Prepare the room. Ensure that the room is comfortable and that speakers and a working Internet connection are available.
- Provide refreshments or ask participants to bring their own drinks and/or snacks so they can concentrate, especially if the meetings are held after a school day.
- Keep to the time schedule as much as possible.
- Be certain to include every participant in the group discussions.
- Establish ground rules or working norms for meetings and discuss them with participants.

Sample norms might include:

- Listen for understanding.
- Engage in the work.
- Allow all voices to be heard.
- Focus on solutions.
- Assume positive intent.
- Challenge ideas, not people.
- Respect perspectives of others.

After the meeting:

- Follow up with each individual at least once between lessons to see how their *Consolidate Your Learning* and *Try It Out* activities are going in the classroom. Offer individual tips, feedback, and assistance as needed by each person.
- Encourage participants to reflect on the strategies they currently use in their own classroom and those they may want to try in the future. Provide time for group discussion and sharing of strategies to expand your group's knowledge and understanding of multiple strategies. It's easy to fall back into routines using the same strategies over and over. Module 4 discussions can go a long way towards opening participants' eyes and minds to some new strategies.
- Engage in some reflective dialogue exercises with participants to get their feedback for you as a facilitator. Ask them how you can continuously improve the workshop and your facilitation skills.
- Review the entire module at the end before moving to Module 5: Responsive Action.

*Advice for Facilitators*

- Send the agenda to all team members prior to the meeting date.
- Establish and review the learning team's ground rules, the participant expectations for each session, and how you plan to communicate between sessions.
- If participants are bringing laptops, be certain to have tables, chairs, and power strips available to plug in cords.

“By failing to prepare, you are preparing to fail.”

-Benjamin Franklin

-Quote found on  
<http://en.proverbia.net/citastema.asp?tematica=903>

- Establish partners for lesson pairing, sharing, and collaborating in discussions. These partners may remain the same or participants may switch partners as you complete each module.
- Use formative assessment strategies with your participants whenever appropriate. Appropriate uses include using strategies to clarify content and making sure learning goals and success criteria are clearly understood and that participants can receive, provide, and use the feedback. Use of these strategies can contribute to a collaborative climate where all participants are learning together.

### *The Formative Assessment Strategies to Try*

1. Clarify the learning goals and success criteria at the beginning of each learning team meeting. Post them on the wall or board if possible. At the end of the meeting, go back to the success criteria and check off the learning goals and success criteria reached.
2. End lessons with a 5-minute “Turn to Your Neighbor” time to recap and discuss key points from the lesson.
3. Give everyone on the learning team an index card with a different question relating to the meeting’s topic. Ask participants to respond to the question throughout the meeting and share out at the end.
4. Provide participants with statements related to the module content and ask them if they agree or disagree with them prior to beginning the lesson or before moving on to a new lesson. Allow discussion about these ideas. This will help you identify misconceptions to address in your role as facilitator.
5. Let participants develop some activities and guiding questions to ask each other during and after the meetings related to the learning goals and success criteria identified for the module.
6. Use a feedback protocol such as “2 Stars and a Wish” that allows partners or teams to provide feedback to each other. Stars are strengths and wishes are areas that need improvement. Ask participants to be specific about both the stars and wishes and connect them to the learning goals and success criteria for the lesson.
7. Ask participants to write “Minute Papers” to end a lesson. Minute Papers are generally written on half sheets of paper or index cards. Allow participants to write one or two important concepts from the day’s lesson. The purpose is merely to provide a chance to self-reflect on one or more important understandings gained from a lesson or a module.
8. Use the following questions to guide participants in a self-reflection:
  - What do I currently know or think I know about this topic?
  - What value does it add to my work?
  - What questions do I have about this topic?
  - What do I expect to learn by studying this topic?
  - How can I find out more information on this topic?
  - What do the experts say?
  - Has this made a difference in my learning?
  - How will I use what I have learned?
  - Will this make a difference in my students’ learning?
9. Ask participants to write about their learning experience in a learning log or journal on a regular basis. Participants can indicate what they tried each day, what frustrations or barriers

they are experiencing, what they plan to do next, and what questions they have about formative assessment. Have participants bring their logs to meetings and share entries with the team or a partner.

10. Ask participants to engage in an observation and reflective dialogue with another team member. Ask them to invite another team member into their classroom for a peer observation of one learning goal from the module. Set up a time for the observer to provide descriptive feedback. Use the success criteria for the module when providing descriptive feedback to each other. If face-to-face peer observations aren't possible, video-record a lesson where you are using formative assessment practices. Bring the video to a TLC team meeting and ask for descriptive feedback on the practice.

### Implementation, Intersession and Feedback Advice

#### *Implementation Advice*

The focus of this module is to help participants understand the features of quality formative assessment strategies and tasks that can be used to elicit evidence about student learning. When teachers select strategies for eliciting evidence, they also need to anticipate student responses. This module will link to the information about learning goals and success criteria from Module 3 as participants think about how to elicit quality evidence and determine how they will analyze the evidence. The next module, Module 5, will focus on determining how these data inform responsive action through instruction and feedback. You should plan to modify the information presented in the lessons to meet the needs of the various levels of learners in your group. The thinking and the practice activities are particularly useful for all participants, even those who are not classroom teachers.

It's best to arrange mixed groups by both grade levels and content areas. Distribute administrators and other non-classroom teachers across the groups. You may be working with districts to pilot the materials, or your participants may primarily be intermediate service agencies who are piloting the professional experience and planning to train others. Regardless of the audience, you will want to move them from a conceptual understanding into actual practice, which should lead to conversations on how eliciting and interpreting evidence about student learning is a crucial step in the formative assessment process. Provide as much work time as possible in the groups as they develop a shared understanding of the vocabulary and the process for creating or identifying each component. Emphasize the notion that eliciting evidence is not the same as determining prior knowledge. Determining, or "eliciting," prior knowledge provides teachers with information about a student's current learning status *prior* to instruction.

Within the process of formative assessment, eliciting evidence occurs during the learning sequence and must align with the learning goals and success criteria. Planned-for interactions can happen at the start of a lesson, in the middle of a lesson, or at the end of a lesson. On-the-fly or spontaneous interactions are also important sources of information about student learning. When designing planned for interactions, it is useful for teachers to anticipate the range of student responses. Doing

so helps them evaluate the question or task being planned to determine if it will provide the necessary evidence to reveal the depth of a student's learning.

Many participants will benefit from seeing and discussing models for “keeping track” of students' responses other than grades or marks (points). Remember, formative assessment interactions, unlike summative assessments, are ungraded. The data gathered must be used, so having a system to record that information is an important aspect of the formative assessment process. Participants may struggle with framing questions to elicit evidence of student learning due to the nature of the standards and related learning goals found in subject domains. Some standards focus on procedural learning goals—the skills and processes that define "how" students do something. Other standards focus on declarative knowledge—facts, generalizations, and concepts that students should know and understand. Working through the examples in this module will help teachers understand how to elicit evidence of different knowledge and skills.

This Module 4 Facilitator's Guide includes suggestions for what to emphasize in the Module and in the TLC, ideas for grouping teams related to a specific lesson in the Module, opportunities to deepen participant understanding, and how to handle issues that may arise. The questions you ask and the time you provide for reflection and discussion are all important components of effective implementation. Because Module 4 asks participants to link to the learning goal statements and success criteria, you may need to check for understanding or review some of the ideas from Module 3. One suggestion is to have participants review each other's learning goals and success criteria to reinforce the learning before they suggest strategies for eliciting evidence. As the facilitator, clear use of vocabulary and a wide variety of examples will help everyone to consider how this work can be implemented to support their current practices. Don't rush the learning; plan for multiple opportunities for your participants to practice, reflect and discuss with others. Use the sample content materials provided, particularly from the Common Core State Standards (CCSS). If possible, gather and archive good examples for participants to refer to as they continue this work.

The lessons can be facilitated separately or taught sequentially during a one-day professional development experience (or using a half-day if that is all that is available). Ideally, having additional time to think about the learning and try out the strategies will help participants to consolidate their learning. If less time is available, refer participants to the additional resources and activities. Adult learners need to see that the professional development and their day-to-day activities are related and relevant. Using the supplementary materials provided, or having participants themselves determine how they will try out the strategies, will fulfill their need for direct, concrete experiences in which they apply the learning to real work.

Because the Module materials are available online, the lessons themselves can be taught either face-to-face or using a phone conferencing system such as Polycom® or GoToMeeting®. Because online learning can be difficult for some learners, if possible, include a myriad of resources to allow participants to decide what to use for their own learning. Because participants come to learning with a wide range of previous experiences, knowledge, self-direction, interests, and competencies, the online work will need to include opportunities to learn from one another. The sessions themselves should model the process of formative assessment. Include a focus on feedback from you to the



participants and the participants back to you, and to each other as part of a continuous improvement process. Additional webinars between sessions provide additional opportunities to engage the participants and address questions.

Preparing participants for implementation takes time. First, participants need to explore the ideas and strategies and relate them to their own ideas. When participants work on interpreting evidence, the facilitator should re-emphasize the need to understand the learning goals and the success criteria. Doubtless, the five components of quality evidence will be new learning for most participants. If the participants are working as part of school-level teams, discuss options for coaching and other kinds of follow-up support (peer feedback). Help participants transfer learning into daily practice so that it is sustained. As mentioned in Module 3, teachers and schools that are more successful with implementing the process of formative assessment typically have implementation teams that evaluate the process and encourage practitioners to try out their learning and “finish what they start.”

Read the advice provided below as you plan for each lesson in Module 4. The text will emphasize some main ideas from the lesson, highlight places where participants may struggle and get confused, and provide suggestions and probing questions to help you model the formative assessment process and facilitate the learning experiences.

|   |   |
|---|---|
| <p><b>Lesson 1</b></p>  | <p><b>Eliciting Evidence</b><br/> <b>Main Messages:</b></p> <ul style="list-style-type: none"> <li>• <i>Eliciting evidence occurs during a learning sequence.</i></li> <li>• <i>Eliciting evidence is planned.</i></li> <li>• <i>There is no single way to elicit evidence: teachers need to determine their own approach.</i></li> </ul> |
| <ul style="list-style-type: none"> <li>• Eliciting evidence is all about finding out what students are thinking during or immediately after a sequence of instruction. The goal is to select or create questions that are worth asking, or tasks that provide evidence of students’ learning. The success criteria describe what students will be able to say, do, make or write if they have met the learning goal..</li> <li>• The first part of the lesson emphasizes the importance of planning for worthwhile questions or tasks. The second element is selecting a strategy that aligns with the learning goal and success criteria and provides evidence that can be used to move student learning forward. Selecting these strategies is a very personal process for teachers. “Improvement by teachers of formative assessment practices will usually involve a significant change in the way they plan and carry out their teaching, so that attempts to force adoption of the same simple recipe by all teachers will not be effective. Success will depend on how each can work out his or her own way of implementing change” (Black &amp; Wiliam, 1998, p. 146). Discuss this quote with your participants. Teachers, like their students, may tire of using the same strategy over and over again, so learning several strategies and using them at appropriate times might look different in each teacher’s classroom. Key to selecting strategies is identifying questions or tasks that provide evidence that can be used to</li> </ul> |   |



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| <p>provide ongoing feedback at the level of detail needed to stimulate action for improvements in learning. This will be the focus of Lesson 2. Don't rush through Lesson 1 until participants are comfortable with examples from their content areas.</p>  |  |
| <p><b>Lesson 2</b></p>  | <p><b>Five Components of Quality Evidence</b></p> <p><b>Main Messages:</b></p> <ul style="list-style-type: none"> <li>• <i>There are five components of quality evidence.</i></li> <li>• <i>When developing a plan for interactions, the five components must be addressed.</i></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Even though we include the five components of quality evidence, participants might not yet fully understand them. Share with them that this work is also being addressed in Lesson 3 and remind them that the first component was emphasized in Lesson 1. Engaging in small-group peer feedback as suggested in Handout 4.2.1 will help them process their new learning.</li> <li>• Because your participants have different roles in their schools and districts, they will have their own ideas about what the components of quality evidence look like at different grade/content levels. This can muddy their understanding. Providing clear examples to discuss will help keep your participants on track. During the discussion or feedback time, suggest that they cite evidence to support their thinking. Reassure everyone that this is learning that will be revisited, since one opportunity for sense-making will not be enough. This work often stretches a teacher's content knowledge. A first step might be to ask teachers to determine their pedagogical content knowledge relevant to the topic or theme before attempting to get and give feedback on their planned-for strategies and questions. To deepen the conversation you may want to spend a little extra time and ask them to respond to the following probing questions:</li> <li>• What is the degree of alignment between the questions/tasks and the learning goal(s) and success criteria?</li> <li>• Does the evidence provide the level of detail necessary to then engage in ongoing feedback to move student learning forward? Explain your thinking.</li> <li>• How well do the questions/tasks reveal student thinking and conceptual understanding?</li> </ul> |  |
| <p><b>Lesson 3</b></p>  | <p><b>Anticipating Student Responses</b></p> <p><b>Main Messages:</b></p> <ul style="list-style-type: none"> <li>• <i>In advance of assessment, teachers must consider the characteristics of performance that differentiate students at different levels of understanding.</i></li> <li>• <i>Levels of performance should not be reduced to a number or a score.</i></li> </ul> |
| <ul style="list-style-type: none"> <li>• Remind participants that this type of thinking is essential when gathering evidence about gaps in student understanding relative to the learning goal. You will want to re-emphasize that learning goals and learning targets are not the same thing. Typically, a learning goal is a broader conceptual idea that forms the basis for several days of lessons (learning sequence). Learning targets are the smaller components that may identify discrete knowledge or components of the learning goal. The ranges of response will reveal the degree to which the success criteria are being met.</li> <li>• Be sure to allow enough time for groups to discuss what teachers need to know and do to</li> </ul>  |  |

create the “look-fors” for each range of student responses. Working in peer groups will assist this process. If your participants are from multiple schools or districts, try to pair them up so that they have a “buddy” to work with who will both give and receive feedback.

- Plan time before the start of the next lesson to have participants share examples of ranges of student responses they have created that can be reviewed by the larger group. Discuss some examples in the larger group or in subject groups. If possible, archive good examples that participants can access. The examples should include a brief narrative that includes the learning goal, success criteria, and what is most important at each level of student response.
- The terms *emerging*, *maturing* and *consolidated* are meant to convey levels of learning that result from analysis and interpretation of student evidence. Key to these terms is an attempt to not assign a numeric value which can be then converted to a “score” or mark. Additionally, the terms relate to a student’s development from a novice learner along a pathway to more proficient understanding of the concept. If the group has difficulty with the terms, relative to what aligns with their district or state, discussing this as a large group may be necessary.
- Most teachers will be familiar with rubrics. Caution them and remind them of the importance of success criteria and descriptions of student responses that relate to what students are able to say, do, think, present, develop, explain, analyze, etc. The quality of a student’s response should be the focus, not merely the number of items or “correct” elements provided in the response. This may generate some heated discussion in your group as current practices are revealed, so be prepared for this opportunity to expand teachers’ thinking and understanding.

### Lesson 4

### Analyze and Interpret Evidence

#### Main Messages:

- *Evidence does not become usable information until it is interpreted in relation to the learning goal and success criteria.*
- *Drawing inferences from evidence is a key skill for teachers.*

- This lesson provides an opportunity for diverse groups of participants to come to a shared understanding of the quality of evidence and what can be inferred from a student’s response. It is important to include enough time to discuss this aspect of the module. Teachers often will talk about their students and say things like, “I know that they understand it but they just didn’t do a good job of explaining it (either in writing or verbally).” Talk about what it means to have enough data/evidence from students to make an informed decision about student learning.
- Focus on the following idea that is central to establishing success criteria that can be used to interpret student responses. Students provide evidence of where they are in relationship to the learning goal (able to say, do, make or writ.). Use experience, knowledge and content area research to establish student responses that reflect: consolidated level of student understanding, maturing level of understanding, and emerging level of understanding (including common misconceptions). Most teachers will be able to predict the kinds of evidence that students will provide to reveal their

understanding. Actually writing this down and sharing it with students takes the mystery out of what is expected for students. This is usually a big “Aha!” for many teachers and administrators since it makes it easier to plan the instruction that follows. How does this process differ from current teacher and administrator practices?

- Don't be too quick to assume that everyone has a clear understanding of how to analyze and interpret student responses. Possible questions to reveal your participant's thinking are: Is the analysis meant for the whole class or for individual students? What is the role that students should have when determining evidence of learning? Will teachers be able to ask probing questions if student responses lack needed evidence?

### Lesson 5

#### Keeping Track:

#### Main Messages:

- *Teachers need a workable system to keep track of their assessment strategies and student responses.*
- *Keeping track should not be burdensome to teachers but provide them with the information they need, when they need it, to keep learning moving forward.*

- This lesson includes two main messages. Teachers must have a system to gather and record the evidence of student learning to use the information to inform instruction. Different questions and tasks will result in different artifacts so teachers and their students must have tools or methods to keep track. So, the key questions are, when students are asked to construct their understanding relative to a learning goal: what information and artifacts need to be recorded, gathered and/or stored; who is responsible for maintaining the record of the evidence and how it will be used; how will the information be stored and for how long? Clearly a discussion is needed here. Logistical issues will be a primary concern for your participants. Existing electronic grade-book programs or district data collection programs are not designed to keep track of non-graded student work. Expect and plan for this conversation from your participants, and provide examples from the field where teachers have developed systems that are flexible and facilitate archiving and using student information.

### Intersession Advice

If you are teaching each lesson separately, you want to be sure that the activities you do in this module are connected from one lesson to the next. Ultimately there should be an opportunity to connect the learning from Module 4 to the next module which will elaborate on interpreting and analyzing student evidence as it connects to ongoing instruction and feedback. People need something specific to do and multiple opportunities to engage meaningfully with the content. The “Try It Out” activities at the end of each lesson are designed to help participants try out the learning and reinforce the ideas by linking them relevantly to their districts, schools and classrooms. These activities also help participants formatively assess their own learning as they practice implementing new ideas and practices in classrooms. Because adult learners come to learning with a wide range of previous experiences, knowledge, self-direction, interests, and competencies, engaging in practice will support their understanding of the formative assessment process.

In addition to the “Try It Out” activities, we pose three options for intersession work before moving to the next module:

### Option 1

Additional Input (individual or group) – Watch a YouTube video, read an article, go to online resources, etc. Using examples of worthwhile questions/tasks found online or ones that participants are currently using (i.e., *Uncovering Student Ideas in Science: 25 New Formative Assessment Probes, Vol. 1-4*, Page Keeley, NSTA Press, etc.) ask participants to identify what is most useful about the formative assessment probes/questions/tasks related to success criteria linked to a learning goal and the student evidence they provide. Have them share their findings with others or group participants that investigated the same content examples. Teams or “buddies” can also search for examples from online lessons in their content areas. One way to do this is to review video clips of teacher lessons. Search for examples from YouTube or other online resources. Your district may also have sample videos that can be used with professional development programs.

### Option 2

Collaboration with others – Within a TLC group meeting, face-to-face or virtually on a wiki or other Web 2.0 platform, discuss questions generated by the group to extend their learning (or provide them with 3 questions based on lesson/module learning goals and success criteria). For lessons 3-4, have participants review the *Developing Thinking with Effective Questions* (Handout 4.4.2a and Handout 4.4.2b). Try the task provided. Remind participants that the goal is to practice asking probing questions to generate evidence of understanding. Once everyone has had a turn, ask content groups to generate questions/tasks that would work for their content areas. Try the task again with questions that they have generated. The questions should be ones that participants are able to answer. This is not meant to reveal what a participant does not understand but rather it is a practice opportunity to ask open-ended probing questions to help gather good evidence. At the conclusion of the activity, talk about how the open-ended questions could be used with teachers and students in classrooms.

### Option 3

Action Research – This occurs when you ask participants to try something and reflect on how it goes (self-reflection or peer feedback). This works particularly well for lessons 3-5 once again. Use the template that a teacher or school-based group developed related to eliciting and interpreting evidence. Discuss implementation goals and strategies for using the question/task with real students in the classroom. After a participant has tried to implement the question/task in the classroom, engage in a self-reflection or peer feedback activity. Discuss or reflect on what worked well, what didn't work and what was learned from the experience.

After providing these options to your group, be certain to gather information regarding what options they select, what materials and other resources they use, and what impact these options have on their learning and implementation.

### *Feedback Tool*

As you progress through each module, we suggest that you keep track of how the learning is progressing using the following feedback template. Create your own template if you wish to gather information. This is important since the process of formative assessment needs to be modeled by you as you work with others, and the feedback you gather and provide will inform your role as a facilitator.

# Module 4

## Eliciting and Interpreting Evidence

### Feedback Template

| Lesson   | What worked well? | What didn't work? | Checks of Learning | Next Steps |
|--|-------------------|-------------------|--------------------|------------|
| <b>Lesson 1:<br/>Eliciting Evidence</b>                          |                   |                   |                    |            |
| <b>Lesson 2: Five<br/>Components of<br/>Quality Evidence</b>     |                   |                   |                    |            |
| <b>Lesson 3:<br/>Anticipating<br/>Student<br/>Responses</b>      |                   |                   |                    |            |
| <b>Lesson 4:<br/>Analyzing and<br/>Interpreting<br/>Evidence</b> |                   |                   |                    |            |
| <b>Lesson 5:<br/>Keeping Track</b>                               |                   |                   |                    |            |