Module 1: Formative Assessment Processes and Learning Acceleration (Introduction)

Micro-Course 1: Learning Acceleration Using Formative Assessment Processes in the Classroom (Introductory Version)

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Warm-Up

Let’s play a word association game:

What do you think of when you hear the word “assessment”?
What is Assessment?

“Assessment is the process of gathering evidence of student learning [and inferring from that evidence what a student knows, understands, and can do] to inform education-related decisions.”

(National Task Force on Assessment Education for Teachers)
## Questions That Assessments Can Answer

<table>
<thead>
<tr>
<th>Educators</th>
<th>Students</th>
<th>Parents/Caregivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>What knowledge, skills, and/or understandings did students take away from this lesson, and how could I use that information to monitor or adjust my instruction tomorrow?</td>
<td>How am I doing in meeting the learning goals and success criteria described by my teacher? How do I need to adjust my learning strategies and/or ask for help to meet the learning goals?</td>
<td>Is my child meeting grade-level expectations and, if not, what is my child’s teacher or school going to do to help them get back on track?</td>
</tr>
</tbody>
</table>
Collecting Evidence

The questions or tasks on an assessment should help us collect evidence about what a student knows, understands, and can do about specific concepts from the state content standards.
State Content Standards

State content standards are accessible here: https://www.cde.ca.gov/be/st/ss/
### Two Main Types of Classroom Assessment Processes

<table>
<thead>
<tr>
<th></th>
<th>Summative Classroom Assessments</th>
<th>Formative Classroom Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Document student achievement of state content standards at a point in time (assessment <em>of</em> learning)</td>
<td>Elicit evidence of student learning to adjust teaching and learning to better meet students’ needs (assessment <em>for</em> learning)</td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td>Typically administered at the end of a unit of instruction</td>
<td>On-going; occurs before, during, and after instruction</td>
</tr>
<tr>
<td><strong>Feedback Mechanisms</strong></td>
<td>Graded and reported to parents and students</td>
<td>Not graded; feedback shared with students</td>
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</table>
Formative Assessment Processes

End of Unit Learning Goals
Everyday Examples of Formative Assessment

- What would be the summative assessment analogues?
Misconception Alert

• Assessments are **not** formative or summative **by design**, they are formative or summative **based on use**.
• The same exit ticket, quiz, test, or performance task can be used **summatively** or **formatively**.
# Embedded Formative Assessment Strategies

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Where the learner is going</th>
<th>Where the learner is now</th>
<th>How to get there</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clarifying, sharing, and understanding learning intentions and success criteria</td>
<td>Engineering effective discussions, tasks, and activities that elicit evidence of learning</td>
<td>Providing feedback that moves learning forward</td>
</tr>
<tr>
<td>Peer</td>
<td></td>
<td>Activating students as learning resources for one another</td>
<td></td>
</tr>
<tr>
<td>Learner</td>
<td></td>
<td>Activating students as owners of their own learning</td>
<td></td>
</tr>
</tbody>
</table>

Learning Intentions & Success Criteria

The learning goals, sometimes called “learning targets,” should be aligned to and derived from the broader curricular goals and state content standards.

What will my students be trying to learn?
What does success, or hitting the target, look like?

➢ Make sure students are aware of what they are trying to learn and the success criteria.
### Examples: Learning Targets & Success Criteria

<table>
<thead>
<tr>
<th>Unit Goal - Gr 4 Math</th>
<th>Lesson Learning Target</th>
<th>Success Criteria</th>
</tr>
</thead>
</table>
| *Demonstrate conceptual understanding of place value and rounding.*  
  *Solve two-digit addition and subtraction problems fluently using multiple algorithms.*  
  *Example from Eureka Math - Module 1, Lesson 4, Topic A* | 4.NBT.A.2: Read and write multi-digit whole numbers up to 1 million using expanded form.  
  Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. | ● Explain what it means to write a number in expanded form (i.e., how a number is formed using place value).  
  ● Accurately write numbers in expanded form up to 1 million.  
  ● Apply concepts of expanded form to compare two multi-digit numbers and correctly record whether one of the numbers is <, >, or = the other number. |
## Examples: Learning Targets & Success Criteria

<table>
<thead>
<tr>
<th>Unit Goal - Gr 6 ELA</th>
<th>Lesson Learning Target</th>
<th>Success Criteria</th>
</tr>
</thead>
</table>
| Write an argument on topics or texts to support a claim with reasons and evidence. | To learn how to locate relevant and convincing facts, details, and reasons based on the intended audience. | ● Establishes a credible claim  
● Supports the claim with appropriate evidence that coherently link together  
● Explains and elaborates the evidence to strengthen the argument  
● Establishes the topic and claim through the introduction and summarizes main points in the conclusion  
● Uses appropriate academic language, grammar, and punctuation |
### Examples: Learning Targets & Success Criteria

<table>
<thead>
<tr>
<th>Science Target Standard (HS Biology):</th>
<th>HS-LS4-2; HS-LS4-5</th>
</tr>
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<tbody>
<tr>
<td><strong>Unit Goal - HS Biology</strong></td>
<td><strong>Lesson Learning Target</strong></td>
</tr>
</tbody>
</table>
| Understand and apply the following concepts of natural selection and evolution to phenomena:  
(1) Changes in the physical environment influence the creation, expansion, and extinction of species  
(2) Natural selection occurs through trait variation; it leads to adaptation and positively affects survival.  
(3) Evolution is a consequence of four factors.  
*Example from iHub Biology, Unit 1* | **DCI:** Identify different kinds and types of bacteria and explain how they operate.  
**SEP:** Ask questions to clarify and seek information about a phenomenon  
**SEP:** Develop models to predict the relationships between components of a system  
**CCC:** Use a specific case study to identify patterns that can explain why a phenomenon is occurring. | Using a case study of bacterial infection:  
- Explain the difference between resistant and non-resistant bacteria  
- Explain the difference between staphylococcus and stenotrophomonas bacteria.  
- Develop at least two questions that need would need to be addressed to solve this case.  
- Develop a theoretical model to explain how bacteria can become resistant to antibiotics. |
Instructional Techniques to Clarify, Share, and Understand Learning Intentions & Success Criteria

- **Example 1**: Teacher’s purpose for the lesson or unit is clear, including where it is situated within broader learning using objectives written on the board and review of key vocabulary; then students are asked to write their own success goals.

- **Example 2**: Teachers’ purpose for the lesson or unit is clarified through a Q & A with the students where they paraphrase the purpose in their own words.

- **Example 3**: Teacher's purpose for the lesson or unit is clear using turn and talk technique, and includes where it is situated within broader learning, as demonstrated by student knowledge of key vocabulary.

- **Example 4**: Teacher's explanation of content is imaginative and uses graphic organizers to organize learning. Students contribute to explaining concepts to their peers.

- **Example 5**: Teacher reviews appropriate academic vocabulary to ensure the purpose for the lesson or unit is clear.

You can find seven more examples from this [playlist](https://www.youtube.com/playlist) on youtube. Just look for videos that start with the title: “Teacher communicates expectations for learning.”
Elicit Evidence of Student Learning

There’s both the *for what purpose* and *how* components of eliciting evidence of student learning for formative purposes.

Identify student **learning strengths/needs** before, during, and/or after instruction.

Inform **future instruction** and **differentiate instruction** by making student thinking visible.

Engineer effective classroom **discussions**, **tasks**, **activities**, and **observations**.

**Formative assessment practices** that can be plugged into any curriculum:

- [60 Formative Assessment Techniques](#)
- [Formative Assessment Classroom Protocols and Strategies](#)
Assessment Does Not Operate in a Vacuum

Curriculum, instruction, and assessment should be created as a coherent whole or system.

- **Curriculum** is *what you teach*. State content standards are organized and sequenced into units and lessons with learning goals and objectives supported by resources and materials.
- **Instruction** is *how you teach*. The teaching and learning activities used help students access the curriculum.
- **Assessment** is *how you gather evidence of student learning* along the way or at the end of a unit or sequence of instruction.
Connection to Learning Acceleration

Yes!

No!
Going Deeper

Module 1
➢ **Overview:** Formative assessment processes and learning acceleration (Introduction)

Module 2
➢ **Where the learner is now, Part 1:** Using quick pre-assessments to elicit evidence of student strengths and learning needs

Module 3
➢ **Where the learner is now, Part 2:** Using formative assessments during or after instruction to elicit evidence of student strengths and learning needs

Module 4
➢ **Closing the gap, Part 1:** Using evidence of learning to adjust instruction and better meet students’ needs
Reflection Questions

1. Create a web or concept map that explains the two different types of classroom assessments.

2. Think about an area of performance you tried to improve in recent years (e.g., writing, cooking, etc.). What type of feedback contributed to your improved performance? How does that relate to the type of feedback that is more/less useful for your students to improve their learning?

3. Consider a current or upcoming lesson. What are the learning intentions and success criteria? How did you (or could you) communicate these with students?

4. Explain how curriculum, instruction, assessment, and state content standards should work together as a coordinated whole.

5. What is one key takeaway and one lingering question you have after listening to this module?