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

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

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Warm Up

What **instructional strategies** have you used or know about to help **close the gap** between where students are now in their learning and where they need to go?
Formative assessment is a process that is inseparable from instruction.

Evidence of student learning strengths/needs is gathered through formative assessment processes and used to **adjust instruction** to better meet students’ needs.
Module Outline

Step 1: Collect evidence of student learning strengths/needs before, during, and/or after instruction in relation to unit learning goals and lesson targets (see Modules 2-3)

Step 2: Analyze student work using quick sorts

Step 3: Adjust instruction using flexible grouping strategies and feedback mechanisms

Step 4: Repeat
**Step 2:**
**Analyze Student Work Using Quick Sorts**

Use evidence of student learning collected before, during, or after instruction

Sort the student work or observations into three groups:

- What is the evidence of developing understanding that can be built upon?
- What issues or concerns are evidenced in the student work?

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>This group of students <strong>does not appear to understand</strong> the key concept or skill that is the focus of the lesson and connected to the unit big idea</td>
<td>This group of students demonstrates <strong>some understanding</strong> of the key concept or skill that is the focus of the lesson and connected to the unit big idea, but needs some re-teaching or additional elaboration to clarify conceptual understanding, misconceptions, or procedural/practical errors</td>
<td>This group of students <strong>demonstrates complete understanding</strong> of the key concept or skills that is the focus of the lesson and connected to the unit big idea</td>
</tr>
</tbody>
</table>
### Goals of the Lesson

Analyze data to support the claim that Newton’s second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration (HS-PS2-1)

### Pre-Assessment Question

The graphs below show student results from an experiment where a solid block was pulled across the floor with a string. Which group’s data best supports the idea that an object will have a greater acceleration when acted upon by a force?

Select the correct answer and explain your reasoning.

### Predictable Instruction Implications

Student work could be sorted into three piles that will lead into differentiated instruction (flexible grouping) for this lesson:

- 1. Students who did not select the correct answer
- 2. Students who selected the correct answer, but were not able to explain using Newton’s second law of motion
- 3. Students who both selected the correct answer and explained fully

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**Graphs:**

- **Group A:** Pulling with a Small Force vs. Pulling with a Large Force
- **Group B:** Pulling with a Small Force vs. Pulling with a Large Force
- **Group C:** Pulling with a Small Force vs. Pulling with a Large Force
- **Group D:** Pulling with a Small Force vs. Pulling with a Large Force
Step 3: Adjust instruction *using flexible grouping strategies*

What are all the ways you can think of to group students in your classroom?

- Independent or individual
- Pairs
- Small groups (more similar or less similar learning strengths/needs)
- Whole group
Flexible Groups

• Instead of belonging to static groups, group membership is **fluid or dynamic**, changing to meet the different strengths and needs of the students.
  - Teachers might make group assignments based on the results of **analyzing student work using quick sorts**
  - Alternatively, **students might choose** to work in a particular group based on their interests or learning strengths/needs.

• Flexible grouping offers students the opportunity to work with classmates who are either similar or quite different in skill levels or interests.
Example of Flexible Grouping

Meet Juan Carlos, a sixth-grade student. His social studies teacher uses different grouping formats and employs flexible grouping to meet the needs of her diverse learners. The scenarios below offer a glimpse at how the teacher uses flexible grouping across a week; it does not provide a complete account of each daily lesson. Notice how Juan Carlos changes groups throughout the week. This example illustrates how a student can work with a variety of classmates throughout the day or week or across a unit of study.

**Monday**

At the beginning of class, the teacher introduces a social studies lesson using whole-group instruction.

Using the results of a pre-assessment about the unit’s content, the teacher divides her class of twenty-seven students into five small groups, each consisting of four to six students. She groups the students according to their preexisting knowledge about the content. Because Juan Carlos has a firm grasp of the requisite knowledge, his group will be allowed to delve deeper into the content, while other groups work on tasks that will prepare them for the unit.

**Wednesday**

Toward the end of class, the teacher has the students work in pairs. This time she pairs students heterogeneously so that one student who has a firm grasp of the content is working with a student who is struggling with it.

**Friday**

The teacher would like for the students to begin working on a project. She allows students to work in groups based on their interests. Juan Carlos chooses to work with two other students who are interested in the same topic.

https://iris.peabody.vanderbilt.edu/module/di/cresource/q1/p02/#content
Step 3: Adjust instruction *using feedback*

Feedback from the teacher, peers, or the student themselves supports *accelerated learning* or closing the distance/gap between where a student is currently and where they need to go.

Learning Targets or Goals

- Student 1
- Student 2
- Student 3
Characteristics of Useful Formative Feedback

Think about some area of learning or performance you have tried to improve in your life (e.g., cooking, writing, teaching, playing the piano, etc.).

What type of feedback was most useful to you to support improvement and growth?

- Related to the learning targets and success criteria
- Actionable, descriptive, specific, and timely
- Just right for the student (not too far out ahead, not too far behind)
Feedback from the Teacher

<table>
<thead>
<tr>
<th>Flexible Grouping Strategy</th>
<th>Feedback Mechanism Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent or individual</td>
<td>Teacher to student feedback in <strong>1:1 conference</strong></td>
</tr>
<tr>
<td>Pairs or Small groups (more similar or less similar learning strengths/needs)</td>
<td>Teacher to student feedback in <strong>small group setting</strong> (math) or <strong>small group setting</strong> (ELA)</td>
</tr>
<tr>
<td></td>
<td>Teacher-led <strong>small group instruction</strong> (notice how the teacher is coaching students and focusing on the different needs of the group; some are ready and moving ahead; others need more instruction)</td>
</tr>
<tr>
<td>Whole group</td>
<td>Teacher feedback during <strong>whole group instruction/discussions</strong></td>
</tr>
</tbody>
</table>
## Feedback from Peers

<table>
<thead>
<tr>
<th>Flexible Grouping Strategy</th>
<th>Feedback Mechanism Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pairs</td>
<td><em>Pairs</em> (notice how the two students are working together to solve a problem)</td>
</tr>
<tr>
<td>Small groups (more similar learning strengths/needs)</td>
<td>Student-led <em>small group discussions</em> (notice where students are sharing different perspectives and coming to consensus)</td>
</tr>
<tr>
<td>Small groups (less similar learning strengths/needs)</td>
<td>Student-led <em>small group discussions</em> (notice how the students are re-teaching and helping their peers)</td>
</tr>
</tbody>
</table>
### Feedback from Self

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<th>Flexible Grouping Strategy</th>
<th>Feedback Mechanism Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent or individual</td>
<td>Student <strong>self reflection</strong> in relation to learning target (the exit ticket was a self-reflection)</td>
</tr>
</tbody>
</table>

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**I Used to Think... Now I Think...**

Remind students of the topic you want them to consider. It could be the ideal itself—fairness, truth, understanding, or creativity—or it could be the unit you are studying. Have students write a response using each of the sentence stems:

- I used to think...
- Now, I think...

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**What Happened and What’s Next**

- What did you feel most confident about? Why?
- What did you do that lead to your success or confidence?
- What was the most difficult part of this assessment? Why?
- How engaged were you with this assessment? Why?
- What would you do differently next time?
- What was most confusing? Why?
- What do you know about the topic that the assessment didn’t allow you to show or demonstrate?
Final Thoughts

The goal is to help all students demonstrate grade level proficiency expectations by the end of the year.

• Some students will need more intensive interventions and supports within and outside of the classroom.
• Some students will need enrichment.

You’ll need to use professional judgment and conversations with other teachers to decide what knowledge, skills, and understandings are most critical in your content area and grade level. These content standards should be where you focus on closing gaps.
Review

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. Describe the four steps involved in helping to close the gap between where learners are and where they need to go?

2. Consider an upcoming lesson. How can you collect evidence of student learning before, during and/or after instruction?

3. Describe how you could sort the resulting student work, observations, or discussions into three groups to adjust instruction. If you collected the actual evidence of student learning, do the quick sort rather than describe it.

4. Explain how you can use flexible grouping strategies and feedback (from teacher, peer, and/or student) to close learning gaps and accelerate learning.

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