

Figure 4.7: Formative Assessment Strategies for Student Action

Strategy One: Key Questioning During Whole-Class Discussion

You use preplanned questions during critical points of the lesson to assess student understanding. “These pivotal adjustment-influencing questions must be carefully conceptualized before the class session in which the discussion will take place. . . . Teachers can’t expect to come up with excellent adjustment-influencing questions on the spur of the moment” (Popham, 2008, p. 60). The mathematical task should be designed to promote student demonstration of understanding.

Strategy Two: Mini or Large Whiteboard Responses

Supply every student with a mini or a large whiteboard. You ask a preplanned question or provide the students with a critical problem to solve. The students then hold up their responses on whiteboards, and you scan the responses to make a decision concerning the students’ mastery levels and needed instructional modifications. Students can also rotate to new groups and use the whiteboard to explain their conjecture or solution to others.

Strategy Three: Traffic Lights or Red and Green Disks

You supply students with colored plastic cups—green, yellow, and red—or a CD-sized disk that is red on one side and green on the other. At critical points during the lesson, ask students to display the color of cup or disk that corresponds to their level of understanding (green means that the student understands, while the red—or yellow—cup indicates the student does not understand and instructional adjustments are necessary).

Strategy Four: All-Student Response Systems

If you have access to SMART Boards and clicker systems in your classroom, you can design key multiple-choice or open-ended questions that students can work on at critical points in the lesson and send their answers to you using the clickers. This displays a real-time public chart indicating the class’s response to the question and immediately lets you know the level of the class’s understanding or common misconceptions (if the multiple-choice options are keyed to common misconceptions).

Strategy Five: Diagnostic Interview Questions

Ask individual students questions to reflect on, articulate, and uncover how they are thinking while working individually or in small groups of two to four. The key is for you to engage in evaluative listening—listening to assess the student’s or the student team’s understanding in order to modify instruction and provide feedback.