HS Algebra 1

Indicator	Evidence	Rating
3a Communicating with Students	The objective of the lesson was to review how to simplify the algebraic expression using Algebra Tiles. The class reviewed a) what Algebra tiles are and b) what they do. The teacher communicates using appropriate academic vocabulary and promotes strategies, such as at 10:32 when he explains that "you want to go ahead and circle, if you need to, or if you have the tiles, you can bring the like terms together; remember, simplifying you bring the like terms together." He has students use the mats and manipulatives to help visualize to explain and show how they're bringing the like terms together to simplify.	Proficient
3b Using Questioning and Discussion Techniques	During the lesson the teacher asked students to review what the tiles are and what they represent. A student explained, "This is y; this is y2, and it fits around the edges." The teacher explained that it has y on one side and y on the other side and it fits around as y2; like area. To make connections to background knowledge, the teacher asked, "How do you find area?" When students were explaining their individual tiles, the teacher asked questions such as, "Which one is positive and which one is negative?" and "Why is this xy?" When one student struggled to explain his xy tile, the teacher asked follow up questions, such as, "How did we get y2 here? What is this telling you?" When additional students were explaining their tiles, the teacher asked, "Why is that 5 units?" When students exclaimed that they never use 5 unit tiles, they began to question and observe why they never use them "because they can't be broken down" and "they can't fit on any of the other tiles." When one student was trying to explain how they could fit inside, another student asked him to "elaborate on that, please." That same student later explained the mats, noting that there is a "positive side and a negative side with a line in between." The teacher clarified, asking, "what is in the middle? Then the positive Is on the top; the negative is on the bottom." The class then transitioned to equations, with the teacher saying, "If I put an equation down: x2+y2+3x2; did I put an equal sign? So do I want you to solve? What do I want you to do? All we're doing is simplifying." The same student who explained the mats then asked, "Do these go on this side because I get that mixed up sometimes?" The teacher asked, "You tell me; what does that middle mean?" The student then made the connection, "Oh so this all goes- is that it? Because the one is positive." The teacher then asked for everyone to complete the problem, saying that each person needs to be an active participant so each person can explain. "On your expression mat, write what this new expression means (the simplified expression)." One student explained her answer but was confused while explaining. Another student tried to explain and was also confused. Her partner asked, "How many 4xs do you have?" The teacher then clarified "You want to circle or use your like term tiles together- so circle the x2 and 3x2 to bring them together. How many x is that in 4x2? Do we have anything else to go with that? No- all we did is simplify." These questioning techniques encouraged students to	Basic

	discuss and respond as well as question the content and each other. However, only 6 students total asked and answered questions during this portion of the lesson; the rest were quietly watching and waiting.	
3c Engaging Students in Learning	Few students are engaged in the conversation when the teacher asks questions and for clarification. Only six students responded to questions over an 11-minute time span. Questions were posed for students to explain their thinking, but only a select set of students participated in those conversations/reflections. For example, when the teacher asks how they know, one student continually speaks up, allowing the other students to passively wait for the answers to be provided. Specifically, when one student was trying to explain how they could fit inside, another student asked him to "elaborate on that, please." That same student later explained the mats, noting that there is a "positive side and a negative side with a line in between." The same student who explained the mats then asked, "Do these go on this side because I get that mixed up sometimes?"	Basic
3d Using Assessment in Instruction	Students self-assessed by commenting on what they were confused about, saying, "I don't know" or "Do these go on this side because I get that mixed up sometimes?" but there was no clear way for students to measure their progress towards mastery. Assessment criteria was vague, and few students appeared to assess their work.	Basic
3e Demonstrating Flexibility and Responsiveness	The teacher had manipulatives and mats to assist in students' ability to balance equations. When students demonstrated confusion, the teacher clarified how they could use their manipulatives or pencil-and-paper to assist them, saying, "You want to circle or use your like term tiles together- so circle the x2 and 3x2 to bring them together. How many x is that in 4x2? Do we have anything else to go with that? No- all we did is simplify."	Proficient