Student Assessment Reflection

Angle assessment:

I created a formative assessment to gauge the efficacy of my "Simon Says" angles game. I drew in one of each type of angle in the space on the left — right, straight, acute, obtuse, and zero— and the direction was to match each angle with the correct angle name. I emphasized, both in writing and verbally in class, that students needed to use evidence to explain how they knew they had correctly matched the angle with the angle name.

AS's assessment (which I sent home before I got the chance to take a photo of) matched three of the five angles correctly, and provided ample evidence to explain her thinking. For the right angle, she justified her answer by saying "it's 90 degrees." For the obtuse angle, she justified her answer by saying "it's more than 90 degrees," and for the acute angle, she said, "it's less than 90 degrees." AS mixed up the straight angle with the zero angle; this was a mistake made by multiple students in the class. The next day, I checked in individually with AS about her assessment, letting her know that she did a great job providing clear evidence for the angles that she matched. When I asked if I could use her pre-assessment as an example of clear evidence to the class, AS nodded enthusiastically.

I passed back students' assessments, projecting AS's assessment on the board. I highlighted how she had used strong evidence to support her understanding. I reviewed the difference between a zero angle and straight angle with the class, adding that this was a mistake that most of the class made.

Reasoning for area/perimeter lesson:

Based on the understanding that AS exhibited in this assessment, I wondered if the kinesthetic nature of the "Simon Says" game had contributed to AS's learning. In order to test this theory, I planned a lesson later in the unit on area and perimeter that included kinesthetic learning. I cut four pieces of 12-foot long string, and had three students each hold onto one piece of string. We went outside and created a square that was 12 ft x 12 ft. I reviewed what the formula for area was, emphasizing that the area is all of the space inside the square. Then, I reviewed the formula for perimeter. I instructed each student to walk around the perimeter of the square, one at a time. After they returned back to their starting spot, I asked them, what distance did you just walk? Each student responded with the perimeter: 48 feet. Students seemed to have a lot of fun with this activity; some of them did movements other than walking to get around the perimeter, such as hopping, running, skipping, etc. Each time a student returned, I asked them to report back the distance they had travelled: 48 feet.

Geometry post-assessment:

In comparing just the score of AS's geometry pre- and post-assessments, she didn't seem to show much progress. However, if we disregard the score and look more closely at the students' work, it is clear that AS's understanding did grow throughout the unit. In the pre-assessment, AS demonstrated no conceptual understanding of polygons, angles, line segments, lines of symmetry, area, or perimeter; she did not attempt to solve the vast majority of the problems. In the post-assessment, however, AS attempted all problems except five. She demonstrated conceptual understanding of parallel lines, right angles, and polygons; on page 3, she correctly recognized that a right triangle would fit into the category of the Venn Diagram labelled, "At least one right angle." On page 4, although she did not accurately apply the formulas for area and

perimeter, she identified that both area and perimeter involve length and width. AS did progress in her understanding of geometry over the course of the unit.

Additional practice applying area and perimeter:

The entire class, including AS, practiced determining the area and perimeter of shapes during the April calendar collector; each calendar day was accompanied by a new shape, and students calculated and recorded the area and perimeter of it. From working one-on-one with AS on this assignment, I can confirm that she was building an understanding of area and perimeter.