Coaching Lab: Plan/Observe/Debrief

In an attempt to effectively implement high-quality and challenging problem-based tasks for students, many of my teachers were challenged with asking probing questions while still allowing their students to engage in productive struggle, and orchestrating effective discourse among students after a task. In fact, in some cases, teachers weren’t even convinced that such tasks were accessible for their students. My principal asked me to implement such a lesson along with a math interventionist, and provided half-day substitutes for the teachers. This allowed the teachers to be able to focus on the execution of the lesson, without having any teaching responsibility during the lesson. All 5th grade teachers, paraprofessionals, special educators, and administrators were present during the half-day to plan, observe and debrief.

Prior to going in with the class, I provided for the staff a copy of the task that they would be observing. We discussed the task, possible solution paths that students might take, and challenges that they might anticipate. Several were honest in saying that they didn’t think the students would be able to do the chosen task. I stressed that we would focus on questioning and discussion techniques. Teachers were given a note-taking sheet with the components from the Danielson Framework: Domain 3/Instruction (communicating with students, using questioning and discussion techniques, engaging students in learning, using assessment in instruction, and demonstrating flexibility and responsiveness).

I began the lesson by using the “I Notice/I Wonder’ technique from The Math Forum. This assured that students fully understood the problem before they were asked to tackle it. Following that, students worked in predetermined pairs to solve the problem. Counters, calculators, and chart paper were made available to students as tools to use as needed. As students worked, my co-teacher and I circulated, asked probing questions, and took notes on what we observed and heard from the students. Toward the end of the class, even though students had not finished, we debriefed about what they had worked on to date. I selected students to share in a particular order, based on their level of efficiency. Student discourse and listening were encouraged by asking if anyone had a question after each group presented, asking if they agreed or disagreed, and asking students to restate in their own words what had been said. The students were engaged throughout the lesson and debrief, and they were even disappointed when math was over. They asked their classroom teacher if they could please finish the task the next day!

Following the lesson, all observers had the opportunity to discuss and debrief about what they saw. The excitement in the teachers was incredible! Observing the lesson helped them understand the difference between funneling and focusing questions, and how to support productive struggle through questioning rather than telling. It helped them better understand how to differentiate a challenging task by providing a variety of mathematical tools that allow students to represent the mathematics. There was great discussion about how they would adapt the lesson to meet the needs of their individual classes without simplifying the task. We worked together to help the teacher, whose class we had observed, plan for the implementation of the remainder of the task on the next day. The team voluntarily asked to implement similar tasks more often, and they want to work together to develop a team scoring rubric that can be used in grading such tasks.

As a math coach, I feel the experience was more powerful for me than co-teaching since the teachers were only charged with observing, and even more powerful than a modeled lesson since so many others had the shared experience and were able to discuss it together. It has created a “can-do” attitude.
amongst that team and an enthusiasm across the building! Other teams are asking when we will do a similar experience with their teams.