

Viewing Protocol

Title: Conjecturing about Functions

Link: <https://www.teachingchannel.org/videos/conjecture-lesson-plan>

Grade: 8

Learning Goals and Success Criteria

The teacher states that the end goal of the lesson is to analyze the set of functions and to begin to make a conjecture about them. She asks students to make a math statement that goes beyond the set of functions students are working with and will always hold true. The teacher refers to a list of qualities that make a strong conjecture that she refers to and are displayed in the classroom. These can be considered the success criteria. These are:

Strong Conjectures/Generalizations

- Range of examples
- Color coding
- Precise math vocabulary
- Why it works (justify)

What do you notice about the Learning Goals and Success Criteria? What commendations and/or suggestions would you offer for this teacher?

Eliciting and Interpreting Evidence

The teacher generates evidence of student learning through listening to students talk, asking probing questions, and looking at work students are producing. For example, at the beginning of the lesson, the teacher pushes student thinking by asking, “What up there convinces you?” and inviting extended explanations. Towards the end of the lesson, she tells the whole class that she notices that some of the students are at the point where they’re beginning to see some math structures that they can use to make conjectures but that the rest of the class isn’t quite there yet and they will do that tomorrow.

What do you notice about the teacher Eliciting and Interpreting Evidence? What commendations and/or suggestions would you offer for this teacher?

Taking Pedagogical Action

The teacher asks students probing questions in the whole group and when they are working in small groups based on what she has understood about their thinking (from their comments and produced work). For example, she asks a pair of students, “We know one minute, two minutes, three minutes, what do we not know that you want to know?” She also provides them with feedback as they are working on analyzing the functions.

What do you notice about the teacher Taking Pedagogical Action? What commendations and/or suggestions would you offer for this teacher?

Student Self and Peer Assessment

By asking probing questions to students as they are engaged in their task, the teacher promotes student self-reflection. Students also fill out an exit slip at the end of the lesson that lets the teacher better understand their thinking. She also asks students what math practices they used that best supported their work during the lesson. The teacher says that this is to get students to stop and think about their own thinking, i.e., to consider what strategies and practices they used during the task that allowed them to be successful during the lesson.

What do you notice about the Student Self and Peer Assessment? What commendations and/or suggestions would you offer for this teacher?