

DEIDRE GREVIOUS: So do you want to look at some of the student work?

AMY BURKE: Yes, let's take a look.

DEIDRE GREVIOUS: And how do you want to sort them?

AMY BURKE: Yeah, so we have two piles right now. One is their individual papers, where they were asked to make a conjecture, to consider the data and have their own noticings and wonderings about it, and then to come back. So I'd like to see if they, if any of them revised their original thinking.

DEIDRE GREVIOUS: Okay.

AMY BURKE: So maybe we can--

DEIDRE GREVIOUS: We'll split it--

AMY BURKE: You and I can just do like a quick--

DEIDRE GREVIOUS: Yeah.

AMY BURKE: Flip to see if ...

DEIDRE GREVIOUS: If there's anything different?

AMY BURKE: If there's anything different. And then--

DEIDRE GREVIOUS: And by different, do you mean the number or by the model?

AMY BURKE: I'm thinking the number.

DEIDRE GREVIOUS: Okay.

AMY BURKE: What I'm seeing so far is that they're all putting 2.

DEIDRE GREVIOUS: Mm-hmm. [affirmative]

AMY BURKE: Because they have that data. Because they have that information from the table, and so they're just saying, "Oh, okay, it's from the table. So that must be correct."

DEIDRE GREVIOUS: Not all of them.

AMY BURKE: No?

DEIDRE GREVIOUS: Nope. Some of them are consistent with their solution from their original conjecture, despite the fact that it was wrong.

And then do you want to sort them for the ones that made the adjustment to the true number? So I have some that ... They changed their opinion.

AMY BURKE: Mm-hmm. [affirmative]

DEIDRE GREVIOUS: But it went from 5 to 1.

AMY BURKE: Mm-hmm. So, but even those that changed it to the 2, I think that they made that change because that's what the table says. It's the maximum.

DEIDRE GREVIOUS: Right, but there are some that still changed it to a 1.

AMY BURKE: I have some that changed it to a 1 as well.

DEIDRE GREVIOUS: Okay, so let's look at those differently then, I guess.

AMY BURKE: Okay.

DEIDRE GREVIOUS: Ooh, I got a 4.

AMY BURKE: And that was left off of the boxes, the one with the one cut. So maybe they're thinking, the smaller the cut.

DEIDRE GREVIOUS: Well, there are also some here with 4s.

AMY BURKE: That changed to a 4?

DEIDRE GREVIOUS: Yes.

AMY BURKE: Oh, interesting.

DEIDRE GREVIOUS: Yes. I'm trying to see if they're at the same table. No.

AMY BURKE: No. These two were up at this table.

DEIDRE GREVIOUS: Yeah.

AMY BURKE: Where was Antonio? Is he at the back corner? Does he wear glasses?

DEIDRE GREVIOUS: No, Antonio has curly hair. He was sitting up here, I think.

AMY BURKE: Oh, okay.

DEIDRE GREVIOUS: Emilio has glasses, so he was ...

AMY BURKE: Oh, yeah. Mm-hmm. Okay.

DEIDRE GREVIOUS: So you did have a number of them then. If you want to measure that, your stack of the ones who changed their--

AMY BURKE: Who changed their--

DEIDRE GREVIOUS: Opinion.

AMY BURKE: Opinion. So that's the majority. So 16.

DEIDRE GREVIOUS: Mm-hmm.

AMY BURKE: Out of ... Who was in here? Maybe--

DEIDRE GREVIOUS: 31.

AMY BURKE: 36. 31?

DEIDRE GREVIOUS: Or 35. You're right.

AMY BURKE: 30 ...

DEIDRE GREVIOUS: 8 times 4 ... 30 ... 31 students.

AMY BURKE: 31. So 16 out of 31 changed their conjecture after looking at the table.

DEIDRE GREVIOUS: Mm-hmm.

AMY BURKE: And these students changed it to 2 centimeters based on what they see in the table.

DEIDRE GREVIOUS: Mm-hmm. And do you think that if you hadn't taken that pause, the thought process of making a conjecture and revising it would have come naturally?

AMY BURKE: I don't think all students would do that naturally. No.

I'm actually realizing I have a ... That's one in there.

DEIDRE GREVIOUS: And so, what do you think was the move that you made as a teacher to help them get to this space? Because we are talking about now the majority of the students.

AMY BURKE: Mm-hmm. Well, I think just that the design of the lesson to have a pause and to ask them to revisit and invite them to revise. I think just that practice of slowing down what we're doing so that students have the time to sort of be metacognitive about their own learning process, you know? That's what, that's what strong thinkers do -- is we think about, and we revise, thinking as we go.

DEIDRE GREVIOUS: Mm-hmm.

AMY BURKE: Right? I'm not calling myself a strong thinker. I'm just saying the royal we. I know.

I put this one on top because I'm interested to read. He says, "I think it will be a 2-centimeter cut, because the smaller the cut size, the greater the length and width even though the height is small."

DEIDRE GREVIOUS: Mm-hmm.

AMY BURKE: So with this student, I don't recognize this handwriting or the name. Who is that?

DEIDRE GREVIOUS: Jeannette.

AMY BURKE: Oh.

DEIDRE GREVIOUS: Linette, sorry.

AMY BURKE: Linette. Oh, so she's really trying to reason through why that might provide the greatest volume.

DEIDRE GREVIOUS: Mm-hmm.

AMY BURKE: Which I don't see as necessarily true of all of the students who did revise their thinking. I see more frequently, "I think the 2-centimeter cut will maximize the volume because ..."

DEIDRE GREVIOUS: I'm looking at ... Yeah.

AMY BURKE: It's the one that has the greatest volume, you know? And there I see maybe three who are really thinking about why is it 2 and relating it to the length and the width that are also considered.

DEIDRE GREVIOUS: But I think you gave them the opportunity in the beginning to justify their original thinking.

AMY BURKE: Mm-hmm.

DEIDRE GREVIOUS: And so that there were some ideas put out there. Because some of the students were talking about the area of the base--

AMY BURKE: Of the base. That's right.

DEIDRE GREVIOUS: And were being considerate of that.

AMY BURKE: Mm-hmm.

DEIDRE GREVIOUS: And then I also heard another student that was talking about the same idea about just using a 1, because that leaves me with the most on the bottom--

AMY BURKE: Base area.

DEIDRE GREVIOUS: Yeah.

AMY BURKE: Right. Right, yeah. Right, and I think also often in math class, teachers and students are about getting answers and moving through content at a pace. And so, I think anything that slows that process down helps learners step up and have the opportunity to really learn instead of just have things thrown at them.

DEIDRE GREVIOUS: Mm-hmm.