

LESLIE THORNLEY: So, good morning.

TEACHERS: Good morning.

LESLIE THORNLEY: Some of you have had an opportunity to introduce this problem and some of you haven't. So, we're going to revisit that experience here in a minute. But for right now, I'd just like to kind of pose the question to you, why did you guys pick the problem that you did?

ANTHONY ROGERS: It's fun.

AUDREY MILES: It's fun.

STACI CARIGNAN: It's about a party. Who doesn't like parties?

ANTHONY ROGERS: And the students can really connect to a party, and I like it because they can use, um, visual models with it, they can grasp this mathematical concept a little bit simpler than other problems.

TAHEEDAH WREN: And honestly? We're working on fractions as part of our curriculum focus, so that's one reason I wanted to work on this particular activity.

AUDREY MILES: And kinder is more dealing with the graphics, on how to look at something and -- and be able to count it, so looking at something graphic.

ANTHONY ROGERS: And the percent of the number.

STACI CARIGNAN: And it lends itself to critically thinking about real-life situations that the kids are going to encounter. So.

TAHEEDAH WREN: They all like parties, so that was when --

ANTHONY ROGERS: [laughs] Yeah.

TAHEEDAH WREN: The leveling point, so it was good.

ANTHONY ROGERS: Yeah.

TEACHER: There's not one obvious way to solve it; it's pretty open-ended. You could use a lot of different strategies.

TAHEEDAH WREN: And you know, it was comfortable in terms of no wrong answers. We didn't look for answers so much as we were looking for their thinking and how they approached -- you know, trying to understand what they were, uh, asked to do.

ANTHONY ROGERS: And all students have access to the problem, regardless of their -- the level.

TAHEEDAH WREN: That's right.

LESLIE THORNLEY: Can you speak more to that?

ANTHONY ROGERS: Well it's ... with the first one, like Level A for example is just, "Cindy had a party and she invited two guests." So, it -- it sort of scaffolds itself to higher thinking and critical thinking, so all students have an access to the problem from the beginning.

TAHEEDAH WREN: And my groups have students from different levels, so when they work with their group and some of the students that are stronger in concept -- conceptualizing the problem, those that are struggling have an opportunity to check their work and give feedback on what they're doing and they can either adjust or ask questions. So.

AUDREY MILES: And for me there was some level of vocabulary building because I have an ELD level and I also have a couple special needs issues that need addressing. So, we did some preliminary work to address vocabulary ahead, and then we used the model while we were actually demonstrating and wanted to show it. So, I thought that was effective and they -- they seemed to be engaged, which was the big piece for me.

TAHEEDAH WREN: Oh, yes.

ANTHONY ROGERS: And a lot of them kept looking to see if I would correct their work or they wanted to know -- they wanted me to okay that their work was okay --

TAHEEDAH WREN: Oh, yes.

ANTHONY ROGERS: But I wouldn't, and I told them just to -- after they had thought they solved the problem, I would have them build the problem on manipulatives just so they can see it better, and they were able to self-correct from there.

LESLIE THORNLEY: This is kind of a nice segue into my next section, because you -- you taught it to your first period class, and we're going to see you a little while with your second period class. So, um, in terms of the scaffolding and some of -- like I said, some of you have done it and some of you haven't. What kind of scaffolding decisions did you make and why in terms of how to introduce the problem, and what misconceptions or problems are you anticipating, or did you anticipate?

AUDREY MILES: [laughs] The funny one was, I forgot the mirror. Because when you're standing to the front of the board, it shows as a different direction, and so you have to be -- when you are visually showing something to kindergartners you have to remember to turn it around. So, if I were to do that again, I would make sure that I was actually showing the model correctly, because at some point, they had a little problem with um -- modeling what I was doing. And I probably would have totally completed the graphics first that we did with the actual people because we had little people that we had adding to the party, then explained totally, and then went back and had them do the model.

LESLIE THORNLEY: And I'm going to cut you off a little bit because you are beating yourself up.

AUDREY MILES: Mmm.

LESLIE THORNLEY: And you did a superb job today. And we just want to -- absolutely superb job. And she's already modeling this great self-reflection that you guys do so brilliantly in your work. So, just focusing on the mathematical thinking that the kids might have a hard time understanding.

TAHEEDAH WREN: For my students, the think time was important. Allowing everyone their own time to read and, you know, go back over it and understand the question within their own time. So allowing everyone their own few minutes to look at the problem was very crucial for the students to -- at different levels to understand and work the problem. And then allowing them an opportunity to work when they were ready to go into the group that was moving a little ahead when they understood the problem was important. So that was one scaffold that we, uh, we planned into the instruction.

STACI CARIGNAN: I'm anticipating some challenges when we start on Monday with Level B and splitting them into fourths. So, that's something that we've really started to hit hard in my class is fractions and beginning fractions, especially halves and fourths. And really remembering that if you're breaking something into fourths, you're breaking them into four equal groups. And some of my kids are still struggling with that concept, so I think one thing I might want to do is definitely have -- I definitely want to have the manipulatives out, so they can actually start off with 32 guests at the party and then start rationing them off for -- you know, half are boys, half are girls, and start pulling from there. I anticipate that to be a little bit of an issue for some of my kids. Especially my EL kids.

TAHEEDAH WREN: You would give them 32 counters, or just a random number?

STACI CARIGNAN: I think I'd just give them a random number. I'd just put out, you know -- I have six groups, so six big buckets of counters and then let them pull from there.

TAHEEDAH WREN: Mm-hmm.

LESLIE THORNLEY: Any other comments or ...?

TAHEEDAH WREN: I try to group my students that, you know, have behavior issues with, um, friendly partners. And in some cases it didn't work, but that's what happens every day, so that was a good, you know, representation of what's going on in Ms. Wren's class. But -- in respect to those students that need a little more support, we allow them to move about, and Ms. Thornley assisted with one student, and I realized a lot of things were going on that I didn't see, but that happens in the classroom.

[teachers laugh]

ANTHONY ROGERS: For Level D and E, I just -- I think some of the students will -- because the critical thinking is ramped up and I can see them struggling a little bit with D and E. Especially some of my students who take, like with E for example, they take, like that question, I

will see them taking that really literally and getting stuck on what the conversation is about in that problem versus the mathematical part, so I anticipate that.

AUDREY MILES: Even the last time I said I didn't want to try past B. I think for me B is harder than C and so I want to try C and actually dress my kids up and have them do it, and see if we can figure it out. Yeah, I think that would be fun to do that and that's --

ANTHONY ROGERS: With the French maid [inaudible]?

[teachers laugh]

AUDREY MILES: I would actually want to try this one on -- and do it as a visual, but no, I'd think we'd have to have a conservative French maid, thank you very much. But uh ... [laughs]

[teachers laugh]

LESLIE THORNLEY: So, you've all been involved in engaging with Problem of the Month this year starting with our summer coaching institute, and then we got a chance to work and collaborate as a team at the district retreat. So, I'm just going to just kind of step back for a minute and talk about -- have you speak to why you have chosen to make this a focus for you this year, and, um, how has it been working together -- we meet once a month -- and just what your personal experience has been with taking this on.

STACI CARIGNAN: Well, I chose to continue to do Problem of the Month despite all of the challenges I think we've had this year, you know with moving and new curriculum.

TAHEEDAH WREN: That's -- yes.

[teachers laugh]

STACI CARIGNAN: And moving again.

AUDREY MILES: Moving the curriculum.

STACI CARIGNAN: But I chose to continue on with it because I really like the way the problems are worded. I really like that it's a real-life situation and it's something that the kids can get into and they can see themselves in that situation and having to solve this real-life problem. And -- I mean, I can find word problems, I can write word problems, but not like this. It forces them to think a little bit deep -- not a little deeper, it forces them to think critically about their math, and think critically about how the math affects them. Um, and yeah, there's been lots of challenges and lots of scheduling issues this year, but I think the fact that we take time out to do it is really helping my kids to see math in a whole new way. At least that's the hope, and that's the goal. That's what it feels like.

AUDREY MILES: And not the whole drudgery piece of the way we were trained to think about math, because the kids love when we say, "Problem of the Month." They are so enthusiastic, and then when we get to the end of the month and we have that opportunity to go through the gallery walks and talk -- they love seeing the way things are presented by other students and --

and just hearing them talk about the math. And when we send it home, the parents are going, "I like that. I did it with my kid." And the parents are becoming part, so that sense of community-building when the problem actually goes home is just wonderful also. So, all of those moments.

TAHEEDAH WREN: For my children, if I don't do it, they'll remind me, "Ms. Wren, when are we going to do the Problem of the Month?" So because of the scheduling issue that you spoke about, and other -- you know, issues that we deal with, I try to do at least 15 minutes a day or 30 minutes every two days so that they can have what they want, because they enjoy working in groups, they enjoy doing the visuals where they can show their work and they can do their artwork and they like working together, you know, overall. So, it's something that they remind me to do if I don't, and I enjoy seeing them developing understanding, showing their work, and showing their thinking on a visual level, and so it's a support. It's a win-win.

TEACHER: And I feel that the Problem of the Month allows there to be a questioning period in their mind, for weeks on end. I think maybe in our regular math time where students find out the answer within the period. I mean we're -- that's sort of what we end up leaning towards is making sure the people understand it and have the right answer. But here, you're left in this equilibrium period for a few weeks and then you have to learn from each other by the gallery walk. So I feel like it's actually a good -- it's a good template for us as teachers to learn about teaching, this -- this process. I mean, if we could transfer it also to other subject areas it would -- it would be an interesting thing for us to do.

TAHEEDAH WREN: One thing that I'm going to do differently is change my groups into more heterogenous groups and have them rotate so that they'll have an opportunity to work with different groups instead of their own seating group that I put them in. So just looking at some of the dynamics today, I'm like, "Okay, we're going to make some changes," and let everybody work with different groups and see how that looks.

ANTHONY ROGERS: My students, whenever I write -- I don't even write out the words "Problem of the Month," I just put POM --

AUDREY MILES: POM, that's what I do.

ANTHONY ROGERS: -- as soon as they come in, they're like, "Look! Look, Look, Look!" And so they're really excited about it, and I think it allows them to -- to do deductive reasoning and um, to think about math at the same time. There's no right or wrong answer. I think the students are more relaxed and more comfortable to share their ideas because they know that I'm not going to grade it, and they know that it's not as weighted. But it is more fun for them and they know it is mathematical at the same time. So, I enjoy that and I like the way they enjoy it. I go to the institutes because I learn different ways of solving math problems, and then I learn the areas where I'm stuck.

[teachers laugh]

And I learn the areas where so many other teachers are still kind of struggling with math as well, so I feel a little bit more comfortable and always gain new insight every time I go, every time.

And I feel like it's definitely affected my practice. It's made me a better mathematician and a better teacher as a result.

LESLIE THORNLEY: You're still working with the mathematics yourselves.

TAHEEDAH WREN: Yes.

LESLIE THORNLEY: And engaging in the math yourselves.

TAHEEDAH WREN: First.

LESLIE THORNLEY: As learners, has been pretty key and critical.

TAHEEDAH WREN: Definitely.

AUDREY MILES: And we get the same conversations that we hear with our kids when we were at the table getting those aha moments, "Oh! Yeah, look!" You know, and sharing what you found, and sharing ideas and establishing our norms and also teaching our children to establish norms with each other when they're working together so that they feel comfortable about um -- sharing their math and their mathematical ideas.

LESLIE THORNLEY: Well, for the sake of time, [laughs] I need to send you all on your way, but I first just want to thank you very much for your time and once again, it is an absolute honor and privilege to work with all of you.

TEACHER: Thanks.

LESLIE THORNLEY: Really, it is.

ANTHONY ROGERS: Thank you.

LESLIE THORNLEY: I'm very lucky, very, very lucky. So those of you we haven't had a chance to see, we're going to see later on, and thank you.

TAHEEDAH WREN: You're welcome.

LESLIE THORNLEY: Thank you for your time.