

Staff Discussion:

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 just like to kind of pose a question to you. Why did you guys pick the problem that you did?

ANTHONY RODGERS: It's fun.

AUDREY MILES: It's fun.

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

ANTHONY RODGERS: And it does really connect to a party. And I like it because they can use 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 fraction as part of our curriculum, the focus so that's one reason I wanted to work on this particular, um, activity.

ANTHONY RODGERS: And kinder is more dealing with graphics, um, how to look at something and be able count it. So looking at something graphic.

ANTHONY RODGERS: 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: And they all like parties so that was the leveling point, so it was good.

ANTHONY RODGERS: 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 asked to do.

ANTHONY RODGERS: And all students have access to the problem regardless of the level.

TAHEEDAH WREN: That's right.

LESLIE THORNLEY: Can you speak more to that?

ANTHONY RODGERS: Well it's, um, with the first one, like level A for example, it said, "She had a party and she invited two guests," so it sort of scaffold itself to higher thinking and critical thinking. So all students have 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 students are stronger and conceptualizing the problem, those that are struggling have an opportunity to check their work and get feedback, um, on what they're doing, and they can either adjust or ask questions, so.

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

ANTHONY RODGERS: And a lot of them kept, um, looking to see if I would correct their work, or they wanted to know, they wanted me to okay that their work was okay, but I wouldn't. And I told them just to...after they thought they solved the problem, have them build the problem with manipulatives just so they can see it better. And they were able to self correct from there.

LESLIE THORNLEY: So this is kind of a nice segue into my next section because you taught your first period class, and we're going to see you in a little while with your second period class. So, um, in terms of the scaffolding and like I said, some of you've 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: The funny one was I forgot the mirror. Um, because when you stand in front of the board it shows a different direction, and so you have to be, when you're 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. Um, because at some point they had a little problem with, um, modeling what I was doing. And um, 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 explain totally and then went back and have them do the model.

LESLIE THORNLEY: And I'm going to cut you off a little bit because you're beating yourself up 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. Um, 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 um, 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, um, at different levels to understand and work the problem. And then allowing them an opportunity to work

when they're 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 planned into the instruction.

STACI CARIGNAN: I'm anticipating some challenges when we start on Monday with level B and putting 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. Um, 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 start rationalizing them off for half of boys, half of 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 of counters or just a random number?

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

TAHEEDAH WREN: Mm-hmm.

LESLIE THORNLEY: Any other comments or...

TAHEEDAH WREN: I tried to group my students that, you know, have behavior issues with 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 in need of a little more support, we allow them to move out. And Ms. Thornley assisted with one student and realized a lot of things that was going on that I didn't see but that happens in the classroom.

ANTHONY RODGERS: In level D and E, um, I think some of the students will...because the critical thinking is ramped up and um, I can see them struggling a little bit with D and E, especially some of my students who take, like E for example, they take like...like that question I can see them take that question literally and getting stuck on what the conversation is about in that problem versus the mathematical part, so, um, I anticipate that.

AUDREY MILES: Even the last time I said that 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...

ANTHONY RODGERS: (Inaudible)

AUDREY MILES: I would actually want to try this one and do it as a visual but I think we have to have a conservative French maid, thank you very much.

LESLIE THORNLEY: So, um, 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 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 free this year and how's 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, um, despite all the challenges I think we've had this year, you know, with moving, and the curriculum, and moving again. Um, but I chose to continue on with it because I really like the way the problems are worded. I really liked 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 that...I mean I can find word problems, I can write word problems but not like this. It forces them to think a little bit deeper...not a little deeper, it forces them to think critically about their math, and think critically about how the math affects them. Um, yeah, there have been lots of challenges and lots of scheduling issue 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, and that's what it feels like.

AUDREY MILES: And that's the whole drudgery piece of what we were trying to think about math. Because the kids love when we say problem of the month; they're 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 talking, they love seeing the way things are presented by other students. And just hearing them talk about the math and when we send it home, the parents are going to be like, "I like that. I did it with my kid." And the parents are becoming that sense of community building. And when the problem actually goes home is wonderful also, so...

TAHEEDAH WREN: For my children, if I don't do it, they'll remind me, "Ms. Wren, when are we going to do problem of the month?" So because of the scheduling issues that you spoke about and other 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 do their art work 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, um, 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, you know, within the period. I mean, we're...that's sort of where we end up leaning towards -- is making sure the people understand it and have the right answer. But here, you're left in this disequilibrium 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 template for us as teachers to learn about teaching this process. I mean, if we could transfer it also to other subject areas, 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 heterogeneous groups and have them rotate, so that they'll have an opportunity to work with different groups instead of their own seating groups 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 works."

ANTHONY RODGERS: And my students, whenever I write, um, I don't even write out the words "problem of the month," I just put "POM," and some of them are like, "Look, look." And so they are really excited about it and I think it allows them to, um, to do like deductive reasoning and to think about math at the same time and 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, um, it's not as weighted, but it's more fun for them and they know it's mathematical at the same time. So, um, I enjoyed that and I like the way that they enjoyed it. And I go to the institutes because I learn different ways of solving math problems, and then I learn the areas where I'm stuck, and I learn the other areas where there are so many other teachers are still kind of struggling with math as well, so I feel a little bit more comfortable. And, um, I 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.

TAHEEDAH WREN: Absolutely.

LESLIE THORNLEY: So working with the mathematics yourselves and engaging in the math yourselves as learners has been pretty key and critical.

AUDREY MILES: We get the same conversations with our kids when we were at the table. We were getting those aha moments, "Ah! Oh yeah, look," 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 sharing their math and their mathematical ideas.

LESLIE THORNLEY: Well, for the sake of time, 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 was an absolute honor and privilege to work with all of you.

TEACHERS: Thanks.

LESLIE THORNLEY: Really, it is.

TEACHERS: Thank you.

LESLIE THORNLEY: I'm very lucky, very, very lucky. So those of you we haven't had a chance to see, we'll going to see later on and, um, thank you. Thank you for your time.