

## **Class Context Part B:**

PHIL TUCHER: The important things to mention when I think about the Algebra Success class is what it is not. And Barbara shared about the ways in which preview and making sure kids are seeing materials before they see it in their core class. The importance of preview, it really can't be understated and yet when there is review, when there is a chance to go over the work that's being done in the class, it's not just a study hall, it's not just an opportunity to "Oh you didn't learn it with somebody teaching it, I'm going to teach it differently," or "You need more practice." It's not from a point of view of "You just need more of..." It's really with a fairly – there's a pretty important aspect of it building a learning agenda with kids. "What are the puzzle pieces that you're missing or where are you not making the connections that you need to be?" Um, and I think today's lesson actually was a good example where, um, kids really are having a chance to say, "Here are these things that I almost know, here's how they fit together, here's what I still need to learn. Oh, you already know that?" Here they have a natural reason why somebody else might know something that they don't. But there's – it's in the culture of the room that kids will bring different strengths, but it's also in the design of the course and of the curriculum that there's a commitment to saying, "What are the pieces that kids need to have and how do we get kids those pieces and help them practice those pieces?" But also have a real opportunity to put the pieces together and make sense of how those pieces fit together.

One thing that Algebra Success class is not, is a place to put all the kids that are getting F's. Let's just go through all the rosters and let's go find all the kids in the school who are getting F's because they need more time. And that's just not even the mentality or the approach that is behind the program. The program was really coming from a place of who are the kids that are...who are the kids that are most going benefit from some additional time to develop not only the math skills, but also the sort of dispositional, the "Wait a minute, I can do this. If I can learn to ask questions, I can learn to be a better algebra student." So who is in the room I think matters quite a lot. Um, but then absolutely, the program is designed to help kids ask better questions, make more clear explanations, use vocabulary, sort of engage with other students. Um, what else?

BARBARA SHREVE: And continue to try to recognize themselves as learners who are learners and that that's a process, and wherever we are, it's not something to hide about. Like one of the things that I've told kids at the beginning of the year every year is that "in this class, we're going to recognize our strengths and then I'm not going to let you spend a lot of time working on them. I'm going to push you to work on the stuff that's hardest all the time, so this is really a hard class." Um, because I want them to know that I do recognize those strengths and they should know what they are, but they need to use those as confidence builders in their back pocket, but work on the stuff that...at being able to add to that repertoire because they're working on the things that are harder for them. Um, I think when we're talking about, like engaging in the review/preview process, the questions that are really related to what's going on in their Algebra B class, it's a constant tension of these are also students may have real questions about number and some of those foundational things, and how can I help support them so those aren't getting in their way, but they're also not ignoring them. You know, like having a chance to ask about them if what they really wanted to understand is, "How do you put together these two fractions, and why do you do it this way?" And I tend to err on the side of having them process and

think about how, with the pieces that they're learning in algebra – that they tend to focus on the pieces – fit into a bigger picture, so they can think about when to use them. But I know that that's a tension that I feel back and forth a lot.

PHIL TUCHER: There's not a lot of homework in Algebra Success but one of the homework assignments that I remember that you've used is to have kids identify the questions that they're having in their core algebra homework assignment or their core algebra class. And this idea of generating questions – it's so powerful to look at 25 students' questions in the last two weeks. And it's useful not just for the students, not just for the Success teacher, but it's useful for the core teachers to think about how do kids talk about what they can't do and what they're not understanding. But it also is a foundation for, okay, so in this room we've got 30 questions going, or here are the five questions of the week, or when there's a tutorial opportunity, here are the two questions that we're working on. It really is a sense of what's our agenda? Let's build our own agenda as we go along, not the teacher's going to come with the things that we can't do and make us practice without understanding.

BARBARA SHREVE: And then that, as they're working on those questions, it's really interesting to see over time when I've been able to structure those tutorials in on a more regular basis, that students start by just writing "I don't know how," and they copy the directions from the homework assignment. And after awhile it becomes, "I don't know how to do it when it's this particular kind of factoring problem," or this step of "How do I start the T-table to get here." Like, they've got these pieces and they're able to get a lot more specific and recognize more of "Here's all these pieces I do have and this is the one that is missing."

PHIL TUCHER: It strikes me that the program works really well in this particular setting where algebra already is a more intensive approach to algebra with the 90 minutes year long. Um, but it's also predominately 9th graders, and so it's not just saying, "We're going to get you through algebra so you can graduate." It's saying, "We're going to get you through algebra so that you understand yourself as a student. So you understand what it takes to be successful in high school mathematics, so that you have the tools, and the skills, and the strategies as a student and as a learner." And I think it's a really nice freshman year or entry-level high school mathematics class to lay out that foundation with so much attention.

BARBARA SHREVE: And this year it's about 75% 9th graders.

PHIL TUCHER: 75%, yeah.

BARBARA SHREVE: Mm-hmm. And the rest are upperclassmen; I have sophomores, juniors, and seniors. I would love to say that it helped all of them pass algebra, and the reality is that it doesn't, but I think it helps most of them understand themselves as math learners differently. And there's a piece of making sure you're doing your homework and following up on those other student things that is not structured into this class, and it's instead focused on the content. That is also a tension we're always wrestling with.

PHIL TUCHER: I saw a student who I know is taking algebra for the second or the even the third time, and to see him up in front of the class making an explanation not from a "I've done this, I know this," but from a "I'm a learner and here's what I know today," was very heartening.