Setting Goals and Selecting Tasks

Peg Smith: Setting a goal is the first step before engaging in the five practices because you have to be clear about what it is you want students to learn as a result of engaging in the lesson. If you don't know where you're going, you're gonna end up someplace else, and often times, goals are stated in terms of what students are gonna do, not in terms of what students are gonna learn.
And while knowing what they're gonna do is certainly important, it's the what they're going to learn that serves as the driver for the questions that you ask throughout the lesson.

Miss Stastny: So my main goal is for the kids to understand that two equal fractions have the same amount of area taken up in the size.

Victoria Bill: So equivalent fractions.

Miss Stastny: So equivalent fractions, yeah. We're also going to talk about fractions equal to one whole. So if I have two halves, the numerator and the denominator, all my pieces are being used so equal to one whole as well as the basics of the fractions. What is the numerator? What's the denominator? How is it partitioned?

Victoria Bill: So you still some students in the room that are at the level of understanding just a fraction.

Miss Stastny: Yeah.

Peg Smith: Once you set a goal for instruction, you need to find a task that aligns with it. That is, a task that actually has the potential to accomplish what you've said you want to do during the lesson.

Tasks that lend themselves best to discussions are tasks that we would consider to be high level, or what we've also referred to as cognitively demanding, and what I mean by that are tasks for which there is no specified pathway as to how you would solve it. So that students actually have to think, reason, and make sense of the situation.
Also, it's really important to pick a task for which there is a low floor, so that students can enter the task, and a high ceiling so that there's the potential to really accomplish something that's mathematically important.

So if you end up with a mismatch, Or you may end up with a high level task, but you're going after very low level goals where you're focusing on

what students are gonna do, not on what you're gonna learn. So in the ideal, when you're having a discussion, you want a learning goal that explicitly talks about what students are gonna learn, and a task that is high level, that has the potential to get you there.

Victoria Bill: Tell us, what's the task that you're doing today?

Miss Stastny: So it's called the Lasagna Task.

Victoria Bill: OK.

Victoria Bill: There will be two people that are each having an equal portion of lasagna, but one's having two pieces and one's having four pieces.

So the kids have to figure out what fractions each of them are eating with the same size pan of lasagnas. So they're going to have to be able to draw it, shade it, write the fraction, and explain how they are equivalent.

So most of my students have the basic understandings and we've looked at equivalent fractions before, but we haven't done them like this where they're given the amount of pieces and they have to figure out how to make an equivalent fraction with that.

There's a lot of problem solving in this one. But everybody can enter into it somehow.