From "Uncovering the Skills That Preservice Teachers Bring to Teacher Education: The Practice of Eliciting a Student's Thinking," by Meghan Shaughnessy and Timothy A. Boerst (Journal of Teacher Education, 2018)

Focus on the ability to enact core practices of teaching, in this case, eliciting student thinking.

Why a simulation?

- "the situated nature of field-based assessments implies that contextual factors differentially shape preservice teachers' performances" (p. 4)
    - In video recordings from field experiences, which were previously used to assess preservice teachers' abilities, "some children were less forthcoming with their thinking than others and required different sorts of probing questions to elicit their thinking"
    - "because instructors did not themselves know the children, they could not determine whether the preservice teachers were accurately or thoroughly uncovering children's thinking"
- Developed a midpoint assessment using a simulation at the midpoint of the program, then found productive for assessing skills upon entry point to program

What does the simulation look like?

- "Our assessment focuses on assessing novices' skills with eliciting student thinking by having each novice interact with a person whose actions and statements are guided by carefully articulated protocol with rules for reasoning and responding, including scripted responses to questions that are commonly asked, that are grounded in a student's way of thinking about a mathematics problem*" (p. 4) -- *the authors explain elsewhere that they used video recordings from field experiences to identify common patterns in students' mathematical thinking and how they responded to questions from teachers; this helped them form the script, which was then delivered by professors and graduate TAs in the program (who may or may not have been known to the preservice teacher)
- "teachers are provided with a student's work on one problem and given 10 min to prepare for an interaction with one standardized student. Preservice teachers are told that the goal of the interaction is to elicit what the "student" did to solve the given problem, and to probe what the student understands about the process used and the math- ematical ideas underlying that process" (p. 5)
- "Preservice teachers have five minutes to interact with the standardized student, and the interaction is video recorded"

What is the follow-up?

- The authors don't describe in this paper what feedback preservice teachers get from the simulation, but they do mention that the findings of the paper (how frequently teachers at the midpoint displayed moves that support learning about student thinking) can help in figuring out how teacher educators can *build on* or help teachers *unlearn* moves that they enter the program with and/or that are seen at the midpoint in the program.

What does this look like while it's happening?
Fig. 2 is the student work they are responding to

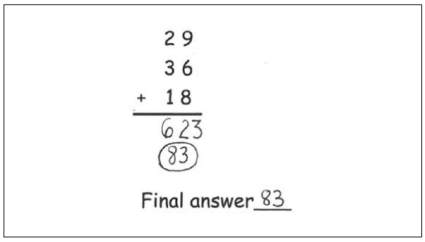


Figure 2. A student's work on a multidigit addition problem.

The exemplar is an example of what it might look like for this conversation between teacher and student to play out in the simulation. In their paper, the authors also explain what each of these moves reveals about the teacher's ability to elicit student thinking.

Exemplar

T: I would just like to ask you how you got this first number here. What was your first step when you saw this problem?

T: What was your first step when you saw this problem?
S: Oh, I did 2 tens plus 3 tens plus 1 ten, and I got 6 tens.
T: What did you get to get the two and the three here?
S: I just added the nine plus six plus eight, and I got twenty-
T: What was your first step when you saw this problem?
S: Oh, I did 2 tens plus 3 tens plus one ten, and I got 6 tens.
T: And then how did you go from the first row [points to 623] to the second row [points to 83]
S: I realized I needed to combine the six and the two.

T: So can you kind of tell me what this row that you wrote stands for or what that number is? [points to 623]
S: Yeah so this is 6 tens and then 23 ones.
S: I realized I needed to combine the six and the two.
T: And how did you know that?
S: Ah cuz they are both tens.
T: And why did you think that was 2 tens?
S: Because when I added the nine plus the six plus the eight I got twenty-three.
T: Okay.
S: You can think about twenty-three as 2 tens and 3 ones.

S: Oh well I added my tens. I did two plus three plus one and I got six.

T: And so why did you write the six where you wrote that in your answer?

S: I saw that I needed to combine the six and the two.

T: And what made you decide to choose the six and the two?

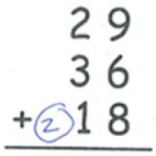
ıt thinking

See left column

See left column

T: Can you do it again for me? I want to see you go through it slowly.

T: If there was a number here, say two, which column would you start with?



T: Oh, okay, great. So you started with the right column. And that's how you added two plus three plus one, you get six.

S: Uh-huh.

T: Okay so when you added this row together and you got twenty-three do you remember how we talked about how we would put the ones place down here and then we have to carry the tens place, the tens row.

S: Oh I've seen my—I've seen that being done but I think this way [points to his work] can work.

T: It might work for this problem but it's not gonna work every time so watch what I do.