Line #	Coaching Transcript	Notes on coaching (use of questions, coaching moves, etc.)
1.	**Coach**: [writes problem, 8 + 7 on the board and models problem on rekenrek] And so, then … how might they see that?	
2.	**Teacher:** I can see my kids seeing the 5 and the 3. And then the 5 and the 2.	
3.	**C:** Okay. And so how would you model that?	
4.	**T:** Me or… ?	
5.	**C:** Yeah. How would—yeah. So, if somebody said that. [points to rekenrek] Oh, I see the 5, I see and then … All right … *oh so I, oh, so you see the 5 and the 3*?	
6.	**T:** So, should I write it?	
7.	**C:** Yeah. And the 5 and 2 and you would model it. [hands over the rekenrek]	
8.	**T:** Well, if that's and I would model. Okay. So you see the 5 and the 3, the 5 and the 2 so how would… Now would I write the 5 + 5, if they see that makes a group of 10?	
9.	**C**: If they say the 5 and the 5 is a 10, then what do you think the question could be to get out the whole and the part of this? [points at the written expression, 8 + 7]	
10.	**T:** The 5 and the 5 makes a 10.	
11.	**C**: Cause that's what they were doing the last time. They saw the 5 and the 5.	
12.	**T:** Yeah.	
13.	**C:** But, we want them to go back to the … what's the whole. [points to the written expression, 8 + 7]	
14.	**T:** So, then I can do, maybe … well I notice that 5 and 5 does equal 10, but then I'm noticing the numbers are 8 and 7, where are you getting the 8 from?	
15.	**C:** Umm. Well, the 8 is here [points to the 8 in the expression on the board] so what, what, what is the question?	
16.	**T:** Where do you see it on the rekenrek?	
17.	**C:** Right. Or, where, they're talking about the 5s right?	
18.	**T:** Yeah?	
19.	**C:** I don't see 5s here? So what, your, the question for them would be?	
20.	**T:** How could you break the whole number 8 into two parts?	
21.	**C:** Or, it could be where, where do you see the 5?	
22.	**T:** Okay.	
23.	**C:** I don't see a 5 here, where is the 5? Where did the 5 come from? And then…	
24.	**T:** It's here.	
25.	**C:** Right. It's here. … [indicates the top row on the rekenrek] Oh so you are saying the 5 and the 3 came from the 8. And then…	
26.	**T:** Model.	
27.	**C**: Right. Do you want me to hold that?	
28.	**T:** [models on the board] So, I would do 5 plus 3, and then the 5 and the 2 gives us the number 7.	

29.	C: Right.	
30.	T: [models on board] Plus... 5 + 3 = 7.	
31.	Carrie: Okay. And now because you know, we know, they know their fives...	
32.	T: Doubles five and five.	
33.	C: Their doubles--oh wait, so you know, you know your fives...so we can actually, you know, put the fives together, we can re group the fives together.	
34.	T: Put the 5s together. [models on board] We could do 5 + 5 and then we can group the 3 and the 2. So, what's 5 plus 5? Double fact. So 10. 3 + 2? They should know that that gives, it's 5.	
35.	C: Okay, so, do you see how it is a little bit different?	
36.	T: Yeah.	
37.	C: What was happening is, is they were getting to the point with the 5s and the 5s, but they weren't relating it to the number it was coming from. [gestures to the problem written on the board]	
38.	T: Mhmm.	
39.	C: So the whole is the 8. And so, when you're decomposing the 8 into a 5 and a 3. You are decomposing the 3 and the 7 into a 5 and a 2. And, that's where the 5s are coming from. They didn't come, appear magically.	
40.	T: So having them being able to explain where the 5 and the 5 are coming from by breaking, decomposing these numbers and explaining it.	
41.	C: Right. Exactly. And that's why the 5-structure is so powerful. And so when they think of ... you know, a 9. [models on the rekenrek] What can they, what can they, what do you think they'll be seeing?	
42.	T: They will be seeing the 5 and the 4.	
43.	C: Right. So that, and that's why the 5-structure becomes so important. The, another thing, and then we... I actually I got a bit ahead of myself. They can also so see, so that's the 5-structure. How else can they see the 9?	
44.	T: Because there's 1 left. So if they know in the top row there is 10 they are taking 1—oh, like subtraction.	
45.	C: Right. So they take one here ...[models on the rekenrek] So now ... cause if you see a 9, a lot of students will say, 'oh, it's a 10.'	
46.	T: Yeah.	
47.	C: 9 is always one away from 10. So that's another way; that's the compensation [models on rekenrek]	
48.	T: Yes.	
49.	C: So you could ... take one away from the bottom and bring it to the top.	
50.	T: Top, yes.	
51.	C: That is where the ton, tens structure comes in. And eventually, like I said, you will take the model away and hoping they will be seeing these structures in their head. And eventually, if they want, if they got to a point, when we are beyond 20, and your beyond the rekenrek and they see something like this [writes 18 + 5 on board], what could they do?	
52.	T: They can break that up into a 5 and a 3 [coach models on board what is said] and then they can make a landmark number, a friendly number with the 15 and the 5 to 20. And then the 20 and the 20 plus 3 is 30.	
53.	C: Okay, so that, that's how powerful this gets. So, it's really about decomposing the number and, you know, reconfiguring it. Okay? So then	

	it's a tool, its' a model to reason with not just compute with. I think what was happening was that they were computing	
54.	T: Computing—yes.	
55.	C: Certainly they were seeing the 10s and that's great, but where was, where was it coming from?	
56.	T: Exactly.	
57.	C: It is all about number relationships…	
58.	T: Mhmm.	
59.	Carrie: And understanding the 8 is composed of [gestures to board]	
60.	T: Especially knowing this with the smaller numbers in the beginning because then once the double digits come they like we said, it will be in their head; so it will be quicker.	
61.	Carrie: Right. Right. Those number relationships they have, they can then use with larger numbers--if they have those in place. So, umm if you gave your students a problem like 9 + 7 [writes the problem on the board] and they don't have the rekenrek, how would they solve that? All the different ways—let's think about everybody.	
62.	T: I think one way is … they would do … put, bring 1 over to make the 10, a friendly number.	
63.	C: Okay.	
64.	T: And then add 6 more.	
65.	C: All right. So how would that be modeled?	
66.	T: On the rekenrek, or in general?	
67.	C: In the, yeah.	
68.	T: So, it would be [models on board] So, it would be….	
69.	C: Where did, where did the 1 come from?	
70.	T: From the 6.	
71.	C: Okay.	
72.	T: Well, or, would I do 6 + 1?	
73.	C: What do you think? What's the first step?	
74.	T: 6 + 1. [models on board] So I would do … 9 + (6 +1) and I would do (9 + 1) + 6 so then that would be 10 and then bring that and that's 16.	
75.	C: That's right. You got it. So … the … 1 was not there.	
76.	T: To show…	
77.	C: The 1 wasn't there; it was part of the 7.	
78.	T: Yeah. Okay.	
79.	C: They were thinking of 7 as 6 and 1 because they decomposed the 7. And then they rearranged it or they regrouped it. And this is the associative property.	
80.	T: Yes.	
81.	Carrie: You are re-associating it. So first it is here and then you are [gestures to show the re-association]	
82.	T: Moving it.	
83.	C: You are moving it there. You've made your landmark number and we know that it is easy to add the 10s. So now the 9 and the 1 becomes the 10 plus the 6.	
84.	T: 10 plus the 6.	
85.	C: But the 1 came from the 7.	
86.	T: Yes.	
87.	C: Okay? So that's is one way they would see it. Is there another way might see?	

88.	T: The doubles.	
89.	C: Okay, what doubles?	
90.	T: Doubles plus 2, 7 + 7 plus 2.	
91.	C: Okay. So … what would, what would change? How, how would the way you model it be?	
92.	T: [models strategy on board]	
93.	C: Okay. Great. And again, they're all equal to each other …	
94.	T: Yes.	
95.	C: … and you are just, you're decomposing and reconfiguring. All right, so [points towards equations on the board] that was using … so that was interesting. This one was using the 10-structure. This was using …	
96.	T: Doubles.	
97.	C: … known doubles. Is there another way that they could see that? [models on rekenrek]	
98.	T: They could do the 5s.	
99.	C: Okay. So, how would you model that?	
100.	T: [models on board]	
101.	C: Okay, so … now what …	
102.	T: Five …	
103.	C: … where did this come from? What is our original problem?	
104.	T: It's 9 + 7, so then…	
105.	C: So you should put the 9+7 here always.	
106.	T: Okay.	
107.	C: Okay, cause again, this is the whole…	
108.	T: The 9 plus 7, yes.	
109.	C: [points to whole and in the equation] The 9 and the 7 are the whole. We're decomposing it to 5 and the 4 …	
110.	T: Right. So they can see …	
111.	C: … and the 5 and the 2. So, if you lose place of the whole, which is, I think, was what was happening in the, in the, lesson. Then …	
112.	T: It is confusing afterwards. You forget where the problem is.	
113.	C: Where is the problem coming from? So this , this is the whole…	
114.	T: Okay.	
115.	C: And these are the parts that we're reconstructing.	
116.	T: [writes W, P, P above the parts and the wholes in the equation] This is the whole and these are the parts that…	
117.	C: Right. Exactly!	
118.	End Transcript	