Transcript: Clarifying the Problem

Elementary Mathematics Laboratory for incoming fifth graders
Park City Mathematics Institute
Tuesday, July 11, 2006

Seating Arrangement

Jessica								Maddie
Ally								Cozy
Sabrina								Holly
Brianna								Luke
Tori								Arthur
Paige								Britney
David	Vinnie	Rebecca	Sarah	Ben	Trevor	Michael	Sean	Autumn

Problem:

What fraction of the big rectangle is the blue region?

What fraction of the big rectangle is the green region?

Autumn:		Would it be different if they count as one- Both of them count as one?
1	Teacher:	What? The whole- The big rectangle is the whole.
2	Autumn:	Yeah, but does the green and the blue count as two?
3		Like t- are they together...
4	Teacher:	Don't put them together. Tell me what fraction the
5		blue is and what fraction the green is. Separately. Be
6		careful that you're reading the question carefully. I
7		see some answers that make me think people didn't
8		read the question carefully. You might want to check
9		with your partner and see if your partner interpreted
10		the question the same way you did.
11	Teacher:	Today I was pretty clear with you about what I
12		wanted you to consider to be the whole. So I want to
13		see if you, when you read the question, if you were
14		careful about that. And you might- It might have
15		been confusing, so let's read it and make sure that
16		we're clear about what the question's asking. Would
17		somebody be willing to read the problem? Don't tell
18		us the answer. Just read it and explain what you
19		interpret it to be saying so we can agree on the
20		question before we talk about its answer. Okay,
21		Autumn. Can you read it to us?
22	Autumn:	What fraction of the big rectangle is the- is the blue
23		region? What fraction of the big rectangle is the
24		green region? Explain your answers.
25	Teacher:	Okay. So now, can you tell us what you're
26		interpreting to be the big rectangle, Autumn?
27	Autumn:	The paper.
28	Teacher:	Come up and point. Show us the outline of the big
29		rectangle. Because that's one of the issues that's
30		going to be important to talk about today.

31	Autumn:	Okay.
32	Teacher:	Do you think you can do that? Just tell us what you
33		interpreted the big rectangle to refer to.
34	Autumn:	The outline.
35	Teacher:	Okay, that's what I intended is for you to look at the
36		whole rectangle. Can you do it one more time with
37		your finger?
38	Autumn:	All the way-
39	Teacher:	Okay.
40	Autumn:	-around.
41	Teacher:	Does everybody see what Autumn's referring to? So
42		if you've considered other rectangles within that
43		rectangle to be the whole, you would have different
44		answers. But what we're talking about right now is
45		calling that whole big thing the whole. The big
46		rectangle, okay? Are we all set on that? So now,
47		what are we trying to do about the blue and the
48		green? Can someone explain from what Autumn
49		read? What are we trying to agree upon with the
50		blue and the green areas? Luke?
51	Luke:	How much area each covers.
52	Teacher:	Good. Can you say that again?
53	Luke:	How much area each covers.
54	Teacher:	How much area of the big rectangle each one is,
55		okay? Does everyone agree with Luke about that?
56		Does anyone not agree? Because- Let's make sure
57		we're sort of agreeing as we move forward so that we
58		know what we're talking about. That fine so far?