One of the observations you've made about accountability in general, and accountability standards and measures in particular, is that these measures tell us how we're doing but not necessarily what to do. How is our thinking evolving in this area, and what are we learning about what actually makes a difference in school performance and improvement? Well, what we've basically done, with this first generation of education reform, is to bring the schooling sector into the world that pretty much everybody else is operating in. That is, we measure performance and we make judgements.

The education culture has resisted this for a long time. We invented all kinds of fancy stories about why it can't be done, but it's *been* done. So the issue

scale – and this is certainly true in Ontario – the kind of organizational conditions we think will predict higher-level learning for kids across the board. So now, what we have to focus on is the actual experience of kids in classrooms. What is the work they're doing in the classroom? How are the beliefs and understandings and knowledge and skill of the adults who are working with students constraining their learning?

What do you mean when you talk about "constraining" the learning?

Well, the scenario looks like this: I'm a teacher, and because of the way my work is organized, I don't get to do a lot of clinical, one-on-one practice. So I have to come into a classroom fairly well organized. I have to have a lesson plan and I have to do the work. And I develop certain work routines around that. What the worksheet looks like, what's on the

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the teacher's understandings of what they're doing. And that's where the difficulty arises. Because it's about control. And so we have to work out a way to lead the adults through a process so that it's psychow



of the inability to draw a point from the sample. So we need to do some work on white balls, black balls, orange balls. This kid gets the general principle, but doesn't understand the computation, so is unable to get from an understanding that some events are less likely than others to the actual probability, and the reason is computational.

So what the Japanese have said is "yes, complexity is terrifying, but there are ways to deal with complexity, and it turns out that the complexity that presents in a classroom is pretty predictable. So we're going to have you watch somebody do this, then we're going to talk about what we observe, then we're going to have you do it with a group of kids. And we're going to watch you do it. And then we're going to debrief you on that experience." Now they do this repeatedly, repeatedly, repeatedly – it's called "lesson study" – over many content areas, and it's a way of saying to a teacher "I know cognitive work is hard, and we understand that, and one of the reasons it's hard is because of the complexity it creates – and it's so important that we're going to help you understand it."

Now one of the consequences of that has been that the structure of the curriculum in Japan and in other industrialized countries has become much less complicated, and much simpler. Because they realize that you can only do that if you have a manageable number of things to teach. Two years ago, I had an individual taking one of my courses who had been a teacher in Japan. She brought in the teacher's edition of the Grade 8 math textbook. It was less than half an inch thick – and that was the teacher's edition.

So that's depth over breadth. High-level cognitive



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And this, you're suggesting, is where we need to complete the circuit in regard to accountability.

Yes. And we're dealing with this problem right now. The external accountability system is telling us something pretty valuable, but it's telling us that, in many schools, we've hit a plateau – different plateaus for different student populations, but it's a common pattern, and it's also a robust pattern that can be tracked across development in general,

economic development, social development, psychological development, and so on.

When you have a situation in which you're not really managing the instructional core – that is, the content side, the teacher skill side, the role of the student in the instructional process – even though you may have created some of the necessary organizational conditions, it may be you've bracketed what's possible. It's becoming clear that the patterns of instructional practice really aren't all that different between high-performing and low-performing schools.

And when you look at the history of research on school effects, which goes back to the 60s, you see that it is socio-economic status that predicts differences in performance. So what's happening is that the instruction is not overcoming the gravitational pull of social capital. I would go so far as to say that you could put a group of kids with high social capital in cryogenic storage for four years, bypass high school altogether, send them to college, and you wouldn't know the difference. These kids have so much social capital in terms of adult expectations, life experience, they read books at home, their parents read books at home, they travel, they know how to negotiate adult relationships, they can navigate their way through an introductory English literature course as a freshman without ever having studied English in high school. In the absence of a strong instructional effect, social capital will dominate.

Since the 60s we've been trying to overcome that gravitational pull. And I think we're in the zone now, where we can start to do that. There are countries that have clearly done that, and made progress on this. So the challenge for us is that we're stuck in this place where we now understand something about the conditions required to create learning in this organization called school, but performance on these external measures is still highly correlated with social capital.

How do we move forward and break that correlation?

Right now, we're in the situation where we have "existence proofs" – we have schools that have done it. And we're trying – because they themselves don't fully understand how they did it – we're trying to determine how it happens, and we're also trying to figure out how to organize it so that it does have some overall systemic impact on opportunity, access and equity.

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If you do that repeatedly over time, the language starts to get more specific, more concrete. But more importantly, it's an agreed-upon language. So when we use a term like "engagement" we know that we're talking about three things, for example, because in our previous visits we've agreed to define engagement as these three things.

In the absence of that, "engagement" means what anybody has in their minds about what it means. And you will typically have as many definitions as there are people in the group.

to focus on X. And we're going to see if we can get some movement in our own work, and in the work that students are doing, around X." This might be having students whose performance is at level 1 or 2 doing higher-level work, or students whose performance is at level 3 or 4 operating under less structured situations, being challenged to exercise independent work, whatever the case may be. And what this does is that it makes those events called "common planning time" more focused on the overall school improvement agenda.

How does this work at the level of the school relate to the larger system, and to the whole issue of accountability which began this conversation? Well, this is precisely where the transaction between school leaders and the environment comes in. Because when you're exploring the "what to do"

