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 board when I start the class, what the appropriate material is, how I work with individual students and groups. That's a programmed behaviour for me. If I'm a really good teacher, I know why I'm doing that, in that particular way. If I'm a mediocre teacher, I might just be doing it because it's the routine – basically, it keeps me sane.

Those are all patterns, and embedded in those patterns is the important part – expectations about what students can do, and preconceived notions about what kind of task it is appropriate to ask students to do.

What we're learning is that those tasks – in the sense of cognitive demand, the level of the content, student engagement, student thinking – are actually much lower-level tasks than the teachers and administrators in a school think they are. So they think students are operating at a much higher level than they actually are. And since it's the task that produces the performance, the recognition process they have to go through is to actually objectify that task – that is, just describe it – and say "if I were a student and I did this task, what would I know how to do?"

Why in particular would we underestimate what students can do?

Well again, I'm a teacher – I work hard, I know my craft, I know what students can do. And I have a lot of experience doing this, so you can't tell me what my students can do, without taking into account my judgement of what they can do.

That's part of it. But this also arises because the kids are constantly negotiating their relationship with

INSIGHT

Seven Principles of the Instructional Core

- "Increases in student learning occur only as a consequence of improvements in the level of content, teachers' knowledge and skill and student engagement.
- 2. If you change any single element of the instructional core, you have to change the other two.
- 3. If you can't see it in the core, it's not there.
- 4. Task predicts performance.
- 5. The real accountability system is in the tasks that students are asked to do.
- 6. We learn to do the work by doing the work, not by telling other people to do the work, not by having done the work at some time in the past, and not by hiring experts who can act as proxies for our knowledge about how to do the work.
- 7. Description before analysis, analysis before prediction, prediction before evaluation."

Learn more about these principles in *Instructional* Rounds in Education: A Network Approach to Teaching and Learning by City, Elmore, Fiarman, and Teitel, 2009.

you. They have an incentive to keep the work simple. And so do you. In the literature, this is called the "contract." And the contract becomes more explicit the further up the grade structure you go. So by the time you get to high school, it's quite blatant. Students are constantly testing their teachers.

I was with a group of students in a high performing high school, and I asked them about their homework assignments. One of them looked me straight in the eye and said "do you mean how much homework do we have, or how much homework do we do?"

What he was really saying is "my experience of this organization is that you have to 'game' the adults, because the adults don't know what they're doing." So what we're struggling with is our preconceptions about what students can do, versus what the research says they can do, and what happens when you actually run these classroom experiments and students have an opportunity to do ambitious things.

It turns out that, lo and behold, kids can be pretty active learners. And they actually can function at much higher levels of cognitive complexity. In fact, one of the problems is that they can often function at levels of cognitive complexity that really challenge 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 psychologically safe for them to experience students as powerful agents in their own learning.

So are you alluding here both to perceptions about students, and the way the work is organized?

Yes and there are some legitimate technical problems associated with this. Let's take a simple worksheet as an example. The logic of a worksheet is that it's the same task for everybody. And there are assumptions you have to make if you give the same task to everybody – it has to be something everybody can do, or at least the kids who are struggling have to have reasonable access to it. It has to produce a uniform result. And it is a form of feedback about what students can do.

But in terms of the cognitive demand you're making on students, it actually reduces the expectations and

INSIGHT

Tools for Determining Cognitive Demand

- Bloom's Taxonomy, in use since the 1950s, categorizes thinking tasks into six levels of cognitive demand – knowledge, comprehension, application, analysis, synthesis, and evaluation. The highest levels of evaluation and synthesis represent higher-order thinking.
- Marzano's New Taxonomy of Educational Objectives, developed in 2000, separates the various types of knowledge from the mental processes that operate on them. In this model it is the three "systems of thought" – self, metacognitive, and cognitive elements that have the hierarchical structure that constitutes the "new taxonomy."
- Costa and Kallick (2000) developed a model that defines 16 "habits of mind" and how these habits can be used and cultivated in school settings. Rather than categorizing all areas of thinking (like Bloom) or how knowledge is used within the context of a social and personal environment (like Marzano) these authors define 16 habits that are required to overcome difficult challenges, for example, persisting, taking responsible risks, questioning and posing problems, communicating with clarity and so on.

the demand to a zone in which you as an adult are comfortable functioning.

So instead of saying, for example "let's take out that worksheet," imagine simply saying "here's a math problem – I'm going to give you a paper bag and a bunch of ping pong balls, and we're going to do something involving probability." The teacher says "just try it" and the students do a whole series of trials, and write down the results of their experiments. And then they talk about it.

Well, what's going to happen, when you do that, is that the distribution of student engagement, understanding, performance, is going to spread out. So you're going to have some kids saying "I need more direction." You're going to have other kids saying "this is really fun – I really love doing this." You're going to have yet other kids saying "I've done this ten times and I still don't understand what you mean by probability – give me a definition." And you're going to have kids saying "I've got it!"

This explains a lot. Because what happens when you give students a task like that is that the distribution spreads out, and this is existential terror for a teacher, who wonders "how do I vacuum up all this information I'm getting about what students actually know, and are able to do, and put it to some constructive use – because there's just too much complexity in this classroom."

The worksheet starts to look really attractive, because I can use it to reduce the complexity to a level where I, as an adult, understand it. So what that does is that it effectively puts a lid on the actual cognitive work that you're asking students to do, in the interest of control.

Are there any models for this approach to teaching and learning?

Well, the way the Japanese have done this – which I think is genius – is that they take that probability task, and they run it with hundreds of students, in hundreds of classrooms. They sit by the students and have them talk about what they're thinking when they're doing it. And they watch the teachers teaching it.

The result might be that through that process they discover, for example, four common misconceptions that students bring to this particular task. They are: a, b, c and d. If you, as a teacher, understand those four things, you will be able to respond to virtually all the students in the room. Because you understand that this kid's struggle is an example 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 work over coverage. And really deep investments in teachers' learning and understanding.

This ties back to your earlier comment that the work the students are being asked to do exactly predicts the performance you can expect on the external measures.

Yes, and there's a long history of research on this. The seminal piece is an article written in the 80s by Walter Doyle called 'Academic Work' in which he makes the proposition that task predicts performance. Since that time, Fred Newmann and his group have done empirical work on intellectually challenging tasks, and operations like the Chicago Consortium for School Research have actually done these analyses in real schools – and it turns out to be a pretty robust relationship.

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In Japan:

- Kounaikenshuu is the word used to describe the continuous process of school-based professional development that Japanese teachers engage in once they begin their teaching careers. Participation in school-based professional development is considered part of the teacher's job in Japan.
- Run by teachers, kounaikenshuu consists of a diverse set of activities that together constitute a comprehensive process of school improvement.
- Jugyou kenkyuu or "lesson study" is one of the most common components of kounaikenshuu.
- Teachers engage in lesson study to systematically examine their practice, with the goal of becoming more effective.
- This examination centres on teachers working collaboratively on a small number of "study lessons" to plan, teach, observe, and critique lessons.
- To give focus and direction to this work, the teachers select an overarching goal and related research question that they want to explore. This research question then serves to guide their work on all the study lessons.
- The premise behind *lesson study* is simply if you want to improve teaching, the most effective place to do so is in the context of a classroom lesson.

In North America:

 Stigler and Hiebert (1999) modified the Japanese model and published their findings in The Teaching Gap: Best Ideas from the World's Teachers for Improving Education in the Classroom.

Read more on lesson study in *Professionally Speaking* (March 2010) available at **www.oct.ca**.

But the problem we have, at least in the U.S., is that there is not enough high-level work going on in classrooms to get really robust cause and effect relationships, because the tasks we are asking students to do are so mediocre. You can draw a cause and effect relationship, but you don't have enough outliers to prove the really positive side without running experiments. So that's where we're running these experiments now, in literacy and math.

It turns out that kids can do pretty much anything you ask them to do with the right kind of instructional practice. It's downright scary.

DIGGING DEEPER

In his seminal study of instructional practice, 'Academic Work,' Walter Doyle (1983) locates the instructional task at the centre of the instructional core. In his view, "the instructional task is the actual work that students are doing as they try to understand the curriculum material presented to them. This is cognitive work but it might occur within individual heads only or include the understandings that grow out of interactions among students or between students and teachers. This work could range from memorization and making obvious connections between what one already knows to evaluation, application, problem solving and critical thinking."

INSIGHT

"Academic press" on the other hand is more like a cultural norm or value. In schools with strong academic press, staff believe the academic work of students takes priority over everything. Read more about leadership and academic press see, for example, 'School Leaders' Influences on Student Learning: The Four Paths' by Leithwood, Anderson, Mascall and Strauss (2010).

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- In 'Five Standards of Authentic Instruction,' Newmann and Wehlage (*Educational Leadership*, 1993) describe the framework they developed to be used as a tool for teachers and researchers attempting to answer the complex question: "What types of instruction engage students in using their minds well?"
- In Teaching for Deep Understanding:What Every Educator Should Know, Leithwood, McAdie, Bascia, and Rodrigue (2005) draw on research and practice to provide strategies designed to help students reach new levels of thinking through teaching for deep understanding.

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 lowperforming 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.

INSIGHT

Social capital is "the 'assets' accrued by a person by virtue of his/her relationship with other persons and networks of persons."

From 'Successful Leadership for Especially Challenging Schools' by Leithwood and Steinbach, 2009

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.

There is a challenge in moving from a bunch of interesting cases, in which schools have figured out how to do this, to a system, because a lot of this has to do with unpacking things that are intuitive and not systematized. It also has to do with understanding, more importantly, the cultural constraints that caused that teacher to move toward a worksheet. And by cultural constraints, I don't mean just working conditions.

There's a cultural matrix around those working conditions, a set of beliefs about what students can do, a set of understandings about the work of teachers, the role of the teacher, the role of the student, the role of teachers in relation to each other. If I had a great day with my students, for example, I might want to say I had a great day, but

INSIGHT

"Students bring knowledge and information, values and preferences, and behavioural habits and dispositions to school. Students have acquired these in part from their relationships and interactions with parents, community members and other persons in their social network; hence, they are sometimes known as forms of 'social capital'... Students' social capital becomes an educational asset when it enables them to fit into school life and successfully perform learning tasks. The value of social capital depends in part on what people in the school choose to count as educationally useful. Knowledge and values generated by the linguistic, racial, religious or cultural diversity of a student's social network may be ignored or discounted when in fact they hold considerable potential for influencing learning."

From What We Know about School Leadership by Leithwood and Riehl (National College for Leadership of Schools and Children's Services, 2003) I might not want to have a deep discussion about why, because it's not what teachers talk about.

Frankly, one of the big barriers we have is with administrators. They do not feel competent to talk to teachers about instruction because they don't feel knowledgeable. They don't feel that they understand the work well enough, and they are still in this transitional period in which they're not sure why this is part of their job in many cases.

Do you believe that to be true in Ontario?

Well, I'd say this environment is different than that of the U.S. But it's different at the level of expectations, rather than the level of practice. Nobody would own up to saying "it's not my job to worry about instruction." But if you asked a group of principals how confident they are in this area, you'd get a different answer. For example, you walk into a secondary math classroom; you see something going on that is really not good. The content is low, the kids are bored, and it's just not a high-functioning classroom. Do you feel authorized to have a conversation with that teacher about math instruction? Most secondary principals would say "no" because they know that the predictable response from the math teacher is going to be "you don't know my content, you don't know my kids, you're not a math specialist, get out of my classroom."

So part of the culture that we're trying to create is one in which we have a safe enough discourse that the principal or vice principal can be actively involved in that conversation, that the teacher can understand that conversation, and that the conversation is seen as part of the work that goes on in the school.

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For more insights from Elmore on leadership that focuses on instruction, see for example:

- 'Accountable Leadership' (The Educational Forum, Winter 2005)
- 'Becoming a Successful Leader: Interview with Dr. Richard Elmore' by Sweeney (*OPC Register*, Summer 2007)
- 'Hard Questions about Practice' (Educational Leadership, May 2002)
- Leadership as the Practice of Improvement (OECD, 2006)

This might be particularly challenging in secondary schools, where department heads have traditionally managed instruction.

I would go further and suggest that the department heads themselves may not be very active in instruction, because they've also adapted to the culture that says "every teacher teaches the way they teach and it's my job to protect them." So the leadership problem is related to these other issues, because what we're moving toward here is coherence – and away from an organization that's balkanized. Part of the issue here is that the organizational model we set up for this thing called "school" needs to be compatible with what we're trying to do in the classroom.

But part of the psychological/cultural work you have to do is to actually authorize the leaders in the building to talk seriously with each other and with teachers about what they're trying to accomplish in the classroom. They need to feel that they have the expertise to do that, and they need to have enough confidence in their ability to do that so that they're willing to step out of their comfort zone, and start to engage people. It's easier to do with elementary principals. But it's still hard.

INSIGHT

Fullan and Hargreaves (1991), in What's Worth Fighting for: Working Together for Your School describe three noncollaborative cultures:

- Balkanization separate and competing groups seek power and influence for their own ends.
- Comfortable Collaboration staff stay out of deeper, more extended relationships that could foster problem-solving, exchange of craft knowledge and professional support.
- Contrived Congeniality characterized by a set of formal, specific, bureaucratic procedures to increase the attention being given to joint planning, consultation and other forms of working together.

These noncollaborative cultures do not encourage the level of professional interaction, collegiality and pressure that supports school improvement.

Collaborative Cultures, in contrast, are not balkanized, simply congenial, or only structures of shared work. Instead they are cultures that support deeper, richer professional exchange.

DIGGING DEEPER

In *Instructional Rounds in Education*, City, Elmore, Fiarmon and Teitel (2009) describe "rounds" as a four step process that includes:

- I. identifying a problem of practice
- 2. observing
- 3. debriefing
- 4. focusing on the next level of work.

Inspired by the medical-rounds model used by physicians, these researchers have pioneered a new form of professional learning known as instructional rounds networks. Through this process, education leaders and practitioners develop a shared understanding of what high-quality instruction looks like and what schools and districts need to do to support it.

You have been developing the model of "rounds" as a means to putting this collaborative conversation into practice.

Yes, that's what rounds are designed to do, although there are many other ways to accomplish this as well. The idea behind rounds is to take this big problem – a pretty atomized organization that's struggling with how to get to the next level of the work – and boil it down to some concrete practices that people could pursue that relate to getting in touch with the actual quality of the work that students are being asked to do.

You start with a problem of practice – for example, a third of our students are at levels 1 and 2 in assessment, so we'd like to understand why that's the case – and you say, "we're going to put a team of people together, who have some responsibility for this issue." It could be across roles.

We visit classrooms, and we ask the team to stick with a very simple but very difficult protocol – a protocol that is purely descriptive. What is the teacher doing, what are the students doing, what is the task? They collect data and then they come back and we typically put them in groups, face to face. We run them through what we call an "affinity protocol" which basically involves writing your observations on postits, putting them on a piece of flip chart paper, and then having the group organize them thematically. What that does is give the team the experience of having to develop a common language for talking about what they've seen.

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In general, protocols are processes that help groups achieve deep understanding through dialogue that may lead to effective decision making. Protocols in education allow groups to explore ideas deeply through student work, artifacts of educator practice, texts relating to education, or problems and issues that surface during the day-to-day lives of educators. Find out more about protocols and how they can be used to transform the culture of schools and districts in:

- The Power of Protocols: An Educator's Guide to Better Practice by Macdonald, Mohr, Dichter, and Macdonald (2007)
- The Adaptive School: A Sourcebook for Developing Collaborative Groups by Garmston and Wellman (2009)
- Protocols for Professional Learning by Easton (2009)

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.

Where does the process go from there?

In the next step, we have the team go through a prediction process by asking "if you were a student in this classroom, and you did exactly what the teacher asked you to do, what would you know how to do as a result?" That's usually pretty shocking for people because it exposes the difference between what they think they're doing in classrooms and what they're actually doing.

And most of the predictions would typically be things like these: you'd be able to follow directions, you'd be able to pay attention; you'd be able to produce a correct answer in response to a prompt; you'd be able to recall what the teacher had taught in the lesson before; and you'd be able to apply it in this new structured situation that the teacher gave you. It wouldn't be that you could take an unfamiliar problem and figure out what the procedure was, or that you could invent a new approach to solving this problem, or that you could explain it to someone else. So we're playing with different cognitive domains here, and it's not until people discover that what they're actually asking students to do is a fairly narrow range of tasks that we can see a way forward.

At this point in the process, we ask "what's the next level of work?" And we try to use Vygotsky's idea of the "zone proximal development" – not "where do you want to be ten years from now?" or "what's a great result?" but "what are we going to know and be able to do by this time next week, next month, and by the end of the school year?" And we make fairly tangible decisions, for example, "it's clear that in lesson planning, we haven't asked teachers to think about the range of possible responses students could make to a high-level task. So let's get some discussion going around that. Let's get some student work into the common planning time. Let's structure those discussions in a slightly different way and let's see what happens as a consequence in practice."

How does this practice tie back to the organizational work?

Well, it relies on all the resources we've invested in that organizational work. If you haven't done the organizational work, the process isn't going to help you. The organizational work is a ticket of entry. You have to have a place where teachers can talk about the work before you can give them the next level of work.

But once you've done that work, then you're in a position to say: "For the next six weeks we're going

INSIGHT

The "zone of proximal development" is a concept created by psychologist Lev Vygotsky. According to Vygotsky (1978), the zone of proximal development is "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. In other words, it is the range of abilities that a person can perform with assistance, but cannot yet perform independently." 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" question in any given improvement scenario, you will always have one of two answers.

The first possible answer is that we already know what to do, and the issue is getting teachers to do it. Almost none of our improvement problems have that characteristic.

The second, and more common answer, is that we don't have the faintest idea what to do. And that's where the principle of reciprocity in the accountability system comes in. For every unit of performance I demand of you, I have an equal responsibility to provide you with a unit of capacity. So at this point, the school turns to the environment and says "we've tried it, we're pretty sure we're in the right territory here, but we don't know what to do next." So the question becomes whether or not there are resources in the environment that are going to help - you can't make the school accountable for producing the result if you don't accept some responsibility for marshalling the knowledge and the professional development and support that's needed.

I should add as well that, in weakly organized systems – and that's not the case here in Ontario – schools often just take this whole activity into their own hands. They're tired of waiting for someone to do it, so they hire consultants, experts, they bring them in, they pay them out of their own budget, and so on.

And it's great that they do that, but it's not a systemic solution. That just aggravates the existing dispersion

DIGGING DEEPER

Some current articles and books that describe aspects of Ontario's story include:

- How to Change 5000 Schools: A Practical and Positive Approach for Leading Change at Every Level by Levin (2008)
- 'Results without Rancor or Ranking: Ontario's Success Story' by Levin, Glaze and Fullan (*Kappan*, 2008)
- 'The Fundamentals of Whole-System Reform: A Case Study from Canada' by Fullan and Levin (*Education* Week, 2009)
- All Systems Go: The Change Imperative for Whole System Reform by Fullan (2010)

in the system. So part of the challenge to the system is to get out of the regulatory and enforcement mode and into the service delivery mode, so that, as these schools start to exercise control and judgement, we actually have a useful role to play in supporting their work.

We are clearly still at the early stage of this work. But is there any advice you can offer principals, based on your experience, that would help ground them in the leadership process you describe? Yes, very definitely.

First, block your calendar, and devote three mornings a week exclusively to classrooms. It's a question of practice, practice, practice. You're never going to have a credible conversation with a teacher about practice unless you've actually been doing it, repeating it, and getting good at it. It's also important to keep in mind that you're not going to be good at it in the beginning.

Second, focus on developing a network of peers and colleagues. You have to have people in your leadership team who you can depend on to talk about these things, but you also have to have peers in other schools who are going through the same experience. It helps if you can actually be in each other's schools and classrooms, but it's not absolutely necessary. What you're going to find, if you're not in each other's schools and classrooms, is that you're going to be telling war stories, instead of talking about that particular classroom, which really represents the problem I'm trying to work on. Third, I'd strongly suggest that you never put people in a group without participating in some way yourself, and that you never use a group for a supervisory purpose. Groups are not constituted as settings in which you can tell people how unhappy you are with them. Because once you do that, it changes the function of the group. And every time you walk into that room, where that group is meeting, from then on they're going to say "the boss is here...get ready."

So I give principals this advice: "I want you to stand in the hallway before you go in, I want you to turn off your walkie talkie, I want you to take ten deep breaths, and I want you to walk into the room, and sit down. Look at your watch, shut up, and don't say anything for 15 minutes. Then, as soon as the fifteen minutes are up, you are authorized to speak. But the thing I want you to think about is that the first thing coming out of your mouth should be a question to which you don't know the answer. Not a rhetorical question. You know, the question might sound like "I'm really interested in what this conversation is about, and it stimulates a really important question for me." The point is, learn to think of yourself as a leader of learning, and try to model the practice you expect other people to engage in.

Do people change their practice by changing their beliefs, or do they change their beliefs by changing their practice? I believe in the latter. So if you don't in some sense make yourself do those things, your beliefs are going to be manifested in a kind of behaviour which is inconsistent with what you're espousing. This person says we're a learning organization, and we're all engaged in the same thing, but in my contacts with him or her, I don't experience that. I don't experience this person as inquisitive or interested in what I'm doing. I experience this person as anxious, and as someone with an agenda.

Just those three things, I think, can produce a significant change in the work, and constitute very valuable first steps toward the kind of culture that generates improvement.

What are your thoughts on the ideas presented in this issue of *In Conversation*? Email your comments and insights to InConversation@ontario.ca by October 29, 2010. We will review them and share them with the community on the *In Conversation* page of the ministry website.