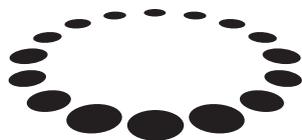


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**The spiral of inquiry:
a tool for educational transformation**

Judy Halbert and Linda Kaser



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Introduction

Judy Halbert: Anyway thank you very much for coming, it is a real honor for us to be here. We had a wonderful day today, and we're absolutely inspired by the work that you're doing, the work that we saw at the school, and the ambitiousness of the project that you're undertaking. We hope that we can add a little bit to the work that you're doing, but again we just really want to thank you.

What we thought we would do in the next 20 or 30 minutes is just give you some idea of the roots of this work, the purpose, the framework and to open it up to questions based on our experience working in British Columbia but in other parts of the world.

How many of you have been to British Columbia? Well, you're all invited. It is a beautiful part of Canada, it's on the far, far west coast and we love our place and we love Barcelona. Just a little bit of the context of our province in terms of the population and the size, we're organized in school districts, we have 60 districts. Most of our children attend public schools, we also have some First Nation schools and we have a variety of different language groups in the province. We've been working with a network of schools for the last 17 years, so one of our big messages to you is to persevere.

We had no idea when we started this work that this is where we would be. In fact, if we had been told that we would be talking about the network in Barcelona, we would have never believed it. We think that over the last 17 years, we've worked with over half of the schools in our province, we've worked with thousands of teachers and support staff. We work with 100 network leaders, they're all volunteers. We've been involved in graduate student programs at the University, and have had several hundred master students and now doctoral students. And we think we've touched about close to half a million students.

Our first big proposition for you to think about is that inquiry is not an initiative, we never want to hear, “Inquiry”, we did that last year, now we’re doing something else. It’s a way of professional being. We want you to think about this work that you’re doing as kind of the essence of who we are as teachers, as educators and that it is really a way of thinking and a way of being as professionals. We’ve learned something about the importance of purpose, of curiosity, of mindset, of coherence and perseverance and we’re going to dive into that with you.

Linda Kaser: I think in our context, and we feel very at home with Catalan people because I think it’s the same, we think the education profession is to do good for the world. That’s why people go into education; to make to make a better future for young people and for our countries. We have found in our work that collectively deciding from the grassroots, from the people doing the work in schools, everybody in the school, deciding what the big goals are, that’s very important to our work. We value short fast goals. In North America, people talk about smart goals, small and specific.

But we have found that the hard goals are the ones that motivate people to stay with the work. We’ve found the idea of hard goals in some business literature, but it has to be heartfelt, it has to be animated, we have to take it seriously and it has to be difficult, something that requires all of us to achieve. All of these have been developed over the long period of our networks and this is our first one.

We want in where we live, we want it for the Catalans too and other places that we’ve been, that every learner, whether they’re a newcomer to your territory or whether they live in a family that doesn’t have... whether they have a family, whether they have very little money, that every learner, who comes to us at the beginning of the education process, that they leave crossing that stage into adulthood with dignity; which means they’ve always been treated with respect, no racism, none of the isms, those are bad.

That they have a genuine sense of purpose to help themselves and other people make a better world. That they have genuine options, they have the competencies and the skills that they can move around. We want it to be a culture that embraces that everybody who comes, walks

at that stage. I know that this is a region in Barcelona, has always been a city, where these beliefs are part of the fabric of the city.

We also want, in some ways this one is even harder, every learner, those curious little people who come to us, we want them to be even more curious when they walk that stage. We want every educator who works in a school, when they finally get their well-deserved retirement, to leave even more curious than when they started the profession. Not, “Goodness, how long until I can go?” But, “ My goodness, this is so exciting. I want to be like the rose I learned about today.”

Part of that is we want to be able to use, and that’s really what the networks are for and we think that they help with sustainability, that we can use the pull of curiosity instead of just pushing down on people through policy to great change. Policy can help, but we think curiosity creates an energy and we’ve all ready seen that here today. We think for young learners to be curious, that the adults they work with need to be curious.

And for us, the spiral framework is an organized way and being curious together so we can talk across places and settings. We also believe...I was thinking about that as I looked at you. I think there’s probably people in this room if you closed your door if you were a teacher and you worked for your whole career, you could create quality inside that classroom but you cannot get equity for learners by working alone. You have to work as a team. It has to be more than one because the challenges that young people are presenting us today from their complex lives requires a team. That’s a belief we have.

We have found in our work and it was fun to see at the school today, Carol Dweck’s book, we have found that mindset and the knowledge that we now have about growth mindset is absolutely foundational. That once, not all of us, not every teacher has had the kind of childhood in education that helps to create a growth mindset, and we all have slightly different attitudes towards things, but that moving towards a growth mindset, that belief, “I don’t know how to do this now,” or “I don’t know how to do this yet, but with hard work, with support and strategies, I can learn how to do it,” is fundamental to teacher change and learner change. We think that matters a lot.

The spiral of inquiry

Judy: The next thing we want to talk about is why the spiral of inquiry and why you as a region are taking this seriously. We think that there's some powerful evidence. We've been working with the network, as I said, for several years and we have case studies now of thousands of schools over that time, and have seen the difference that it makes when they take inquiry seriously and use a coherent approach. We've also really been influenced by the work in New Zealand. Helen Timperley, who is one of the leading experts internationally on teacher professional learning, has been a colleague and a collaborator with us in designing these ideas.

There was a very interesting project in New Zealand a few years ago looking at literacy where schools got a lot of support over six-year period. Her question was, "What happens after the initiative ends?" She and one of her colleagues, went into 200 schools two years after the literacy strategy had formally come to an end, and they found two big findings which are really important in this context. The first one was that when the schools applied the strategies that they'd learned during the initiative consistently, they maintained the gains for similar cohorts of students. That was good. Teachers learn new strategies, they apply them, they maintain the gains.

The more important finding though was though was this one; was that when they applied new strategies, and they used an inquiry cycle that built the knowledge within the school, their gains improved over time, particularly for their most vulnerable students. When we learned that from Helen and we had our case study, then we spent two years working together to develop the framework of the spiral of inquiry drawing on her knowledge and on ours. Just one piece from British Columbia, there on a number of international measures, we're a pretty strong system. That's

important for us as we were drawing on this work to know that you can have some confidence that it is over time making a real difference to our learners.

This is just one example but taking a look at some international comparisons, looking at the outcomes in reading and mathematics and equity for 25-year-olds. This was from The Conference Board of Canada based on the OECD assessments, but we have the least number of students struggling and we have the most number of students at the highest levels in reading. Which, in our context, is really important because we have poor early childhood programs and we have high childhood poverty, relatively speaking for a developed place. It's a teaching effect and we think that that's that's really important.

We have the highest number of 25-year olds that have at least two years of post-secondary. Which is a proxy for long-term health outcomes as well as the contribution to civic society. We're just telling you that to say you can have some confidence that there are some places that are doing okay using this as their major approach. The last piece, just quickly to say why this is important, is that there was a study done a couple of years ago by a research group from Australia looking at professional learning in high-performing systems.

These were the four systems that they looked at, three Asian ones with fairly similar cultures, and one kind of weird one in Canada.

We were surprised when we were asked to be part of this study. Really different cultures, but the findings were consistent across the four, that this is what makes a difference for teacher professional learning. That it needs to be inquiry-based, we need to work together, it needs to be linked and coherent and that's why the spiral of inquiry as a framework to develop coherence across your networks of schools we think it is so important.

That it's led by the profession, the session that we were at today, was led by the teachers and the principals with a facilitation, the fantastic facilitation that we saw, and you're going to take your time with this work. It's not going to be a quick fix in the next six months. That's the evidence background and here's just a quick description of what it looks like. Over to you.

Linda: Well, how many of you are already extremely familiar with the spiral of inquiry framework? How many of you just wandered in because you thought it would be nice to sit down on a comfortable chair, as it's very comfortable?

I think when we talk about the stages of the spiral, by the way, we talk about them in an order but they can be very fluid and move around. But there's essentially six thinking processes. The first one is scanning, the difference for us with scanning is that we start by talking to young people, we don't start with organized data sets.

We start with talking to the person in front of us, small data, humans, and try to find out whether they feel they have a sense of belonging, and if they actually know what it is that they're learning and why it matters, not what they're doing what they're learning.

That we call that scanning because it's quite broad and we love it that your networks are using those seven learning principles because we think that's a very powerful framework. Then, unlike the broad stage, there comes a time when you have to make a decision. At the focus stage, we have to ask ourselves as a school or as a network, "What's the one thing that if we focus on it, we're going to have the biggest impact?"

If you have a whole staff, for example, and you yourself are quite fixed, it might actually be the growth mindset that you decide to focus on as a way of moving forward.

At the hunch stage, you don't have to take a long time at the hunch stage, but this is a time where Helen has found and we have found that professionally we kind of grow up if we say, "Here are some things that we have control over, what if we did this," or "I wonder if we stopped doing this and did this instead if that would make a difference." And putting those assumptions out and then testing them, we find a very healthy thing.

Then, if you want to move something forward, you have to do some new learning. Because that's why young people aren't learning to the act of people, they're not...if they're struggling with anxiety and depression as many young people are doing right now, then we as the faculty need to learn some more about the best ways of having great mental health. We need to learn that, we need to learn that as a team and be curious about that new learning.

Only now do you get to the action stage which is the part often in Canada teachers we like to go from scanning, “There’s this problem or challenge,” right immediately to action. This process asks you to slow down at the beginning, but here you can go fast because you’ve decided on some things that you’re going to do differently. Maybe you’re going to make sure that there are powerful learning intentions that young people know. And then the last stage which goes back into the scanning is, how do we know we’re making enough of a difference?

So we’re looking for those evidence pieces and indicators that say, “You know what, we want young people to be much more intellectually engaged,” and today we were in a school where you could see that the young people were intellectually engaged. What are the things that would tell us that? What would they say, what would we see, that’s really important.

That’s a very quick trip through the dance of the spiral. And the designer, the image, was made by a designer who actually also teachers design and she says there’s an inner circle there. That’s where tired teachers go to rest after they’ve done a lot of thinking together. Because it does require some intellectual energy at the beginning, before you get the lift off what you do get we know that now.

Judy: One of the things that we’ve learned about building curiosity in teachers, is that they’re curious about what’s going on for their learners. And that we need to provide the space and the time for teachers to talk to and listen to learners in this process. We call it the four questions, but it’s really one question and then three more. These questions are so important to us that in the schools that we work with directly in our networks, we insist that they start with these questions.

Here’s the first one. We believe that every young person needs to have two adults who believe they’ll be a success in life, and those people need to be in the school. We want to ask students in a variety of ways if they can name two adults and if they can, how is it those adults demonstrate their belief that they will be successful. It’s a very important question that comes from the social-emotional research. And it is a proxy, it’s a way of determining the extent to which kids feel or young people feel connected, and there’s also a direct correlation to their academic achievement.

We need to know and then if we find that there's a student or two students or three students who don't have two adults that believe in them, then we need to act on that right away.

The next three questions come from the work of John Hattie and Helen Timperley on feedback, it's also connected to the sixth learning principle which is around assessment for learning and the importance of feedback, and its feedback from the learners to the teachers. We want to know that each young person, whether they're five years old or 18 years old, can say in their own words what they're learning and why it's important. Whether it's in science or history or English literature, what is it that they're learning and why is it important?

Most students in our settings can say what they're doing, it's a very different question to ask them what they're learning and why it's important. We want that to become a way of life as part of the beginning stages of the spiral that sits around learner agency, and then we want to ask them, how's it going? do they have some criteria to assess themselves, and have they had the coaching feedback that lets them know what their next step is? These are the starting questions for scanning, they're informed by the learning principles and they generate the kind of curiosity that we want in teachers, that propels them to want to know more and to learn more.

Linda: I think maybe we should say too that when we do this work, we also ask young people not only why it's important, what are you learning and why is it important, but can you give as some examples of how you use your knowledge of your growth mindset outside of school. So that young people begin to learn that the things we do in school have some connection to their lives and that that's why we're doing them.

Judy: Just to wrap this up and then to open it up for discussions, we found that it's absolutely critically important for us to be clear on our purpose. It was really encouraging today, to hear from the teachers and the people that were at the meetings, the clarity of the imperative of what you're doing as a society around equity and quality, and fairness, and democracy, it gets really really clear and that's what your network is all about, so good for you.

The second is that we really want to develop the conditions for professional curiosity. And that requires us taking our time. We say

sometimes you need to slow down to pick up the pace of change and not just to hop from one thing to another, but to use this framework as a way of building adult curiosity and building learner curiosity. Then the importance of a coherent framework; there are lots of models around action research and we have many many examples of that in North America, that start with teacher interest or teacher curiosity. There's nothing wrong with that, but what we want to do is do this as a team, where we're starting with a deep understanding of what's going on for our learners as opposed to what we think might be fun or interesting to do. It's quite different when we start with the needs of the learners as opposed to the interest of the teachers. We've also learned a lot about the importance of teamwork which you are modelling so exceptionally here with the links across your associations and persistence.

Our question to you and to ourselves is, how will we work together through this next couple of years that you've got with your network, but also beyond that; beyond the formal conclusion of this project that you're on, so that in our words, every young person in the Catalan region will cross that stage to adulthood with dignity, purpose and options? If you buy that that's an important thing to do.

The other thing that we've learned is perseverance, that this work really takes time and that there's going to be times when it gets a little bit difficult and it gets challenging. It sounds easy to describe the stages of the spiral, but once you get into it, it is much more complex than it seems and you need to be able to look to each other for support and to your facilitators to keep that work going.

We use the image of the bamboo. When bamboo was first planted, you don't see much happening above the surface, everything is taking place underneath. It takes about seven years for the roots of bamboo to become so locked in. I see some people nodding, you've tried to get it out of your garden, you need dynamite to do that. That's what we want, we want the roots to be so strong that it's going to stay for a long long time. We need to take our time to create the foundation so that the work will really take hold.

The last point, this is a word from the little white language which is where the winter Olympics in 2010 were in Canada and they were in

Whistler. This is a word from the indigenous language and it's being in that place of dissonance and uncertainty in the anticipation of new knowledge. The spiral of inquiry requires us to be somewhat uncertain because we can't predict where it's going to take us. We think that this term [...] really represents that place of uncertainty, we know we're going to be going to some place better, but we're not quite sure necessarily how we're going to get there.

We'd just like to thank you very much and we'll be opening it up to questions and really hope that you will stay in touch and stay in contact. I just want to end with a quick story of what happened today, if I may. We have case studies on our website which was up there from all of our schools, and the group today had translated one of the case studies, a Begonia translated case study from a small school in Northern British Columbia, and there it was out on the table.

We took a picture of it, send it to the school, they had an assembly today and they read the case study out loud in Catalan in this tiny town and the parents were invited. They just were so proud that the work that they were doing was being used here. We look forward to a reciprocal relationship where we're just learning from each other as part of the fabric of being a great couple of countries, so thank you.

Interview¹

We have talked a little bit with Marta and we said that we would like also to talk about how we could use these methodologies for change. Well, we were talking with them before and we were saying that the school has to be a living entity that has to rethink itself constantly. Our two guests said to us that this tool; the spirals of inquiry, is a tool which allows us to do both things. It allows us to keep the school updated, but once the school is already at the place it wants to be, it can rethink itself permanently and constantly.

Maybe my first question would focus on that, how do you think that that methodology could be used for both elements; updating the school to be able to answer the challenges of today's world, and also to keep the school updated, responding to new challenges and to new knowledge on how people learn?

Linda: That's a great opening question. I can hear myself, I'm going to take this off. We call our network the network of inquiry and innovation. We started with our schools looking at assessment for learning in a coaching model with learning progressions. We started in a way where every teacher in our province could think some more about how young people could become good citizens and some other areas.

What we've noticed over time, is that schools that embrace a different form of assessment, that's more like coaching and less like judging, began to change quite profoundly. A school that started with a book which was a traditional way for teachers to start, read a book, make a

1. Conducted by Marta Comas (Director of the Department of Innovation, Programs and Training of the Education Consortium of Barcelona) and Eduard Vallory (President of the Catalanian UNESCO Center and Director of the Program Escola Nova 21).

book, two years later they had become a nature school and they were doing most of their learning outside, and they had formed a partnership with a university and a scientist and an aquarium, and had profoundly changed in ways that were much more represented by the innovative learning environment work that David Instance and other people have been doing overtime.

It's sort of the reality of seeing those cases, the small changes by a few people have ended up dramatically changing what people will do with young people so that you can go into not every school where we work, but you can go into lots of schools and see Italian forms of early childhood, Reggio inspired provocation work where a few years ago it would be quite different. I think for us, looking back retrospectively, we see the power of people just like with children, as soon as young people are allowed to be intellectually curious, which apparently happens when we smile at them, build a relationship and tell them small stories about our own life when we were their age, that's what the research says about curiosity in North America, which is quite a nice pedagogy.

As soon as those small acts, they act like seeds and later ecosystems are created. Which is fascinating to us and encouraging, because I think that's what we want.

Judy: Yes, I think that we'd say that innovation floats on a sea of inquiry. Which means that we'll start possibly with a relatively small question, but it builds the confidence to go bigger and bigger and bigger and now we have schools that have radically transformed. And as Linda said, they may have started with a small question.

Linda: I think too when I've talked to people who...in New York, there's a zone, an innovation zone so 10 schools innovate on behalf of everybody else. When I've talked to the person who was leading that process, she said that the leaders of those schools were people who were always intellectually curious, they were always trying to change the system. We think, at least in our area, and I think this area's like that too, that if everybody gets a little bit curious, the chance of system change is stronger than if a few people get curious and then we go and stare at them for a while and say, "They're so unusual, we could never do that." Once we get people on that curiosity boat trip, we think you get a fleet.

As the representative of the Consortium of Barcelona, I would like to say that in Canada, and also in our network, we are sharing this methodology because we share many many things.

This is so nice to see that in this purpose when we started these networks, because what we wanted to do was to make sure that this curiosity was a systemic one, we wanted to make sure that the teachers' community became a learning community also. We wanted to make sure that this curiosity would be sustainable, and we wanted to share it in networks we didn't want any school to be not on board. Another thing that we share with you is that this process has to be in the long term and sustained.

My question is, how can we make sure that this process is sustainable and sustained? How can we make sure that this curiosity is never-ending? How can we keep curious all the time so that we can have this sustained quality for everybody because we want to be always learning communities? How can we open our eyes and our mouths to keep always being like learners also? How can we make sure that the project is sustainable and sustained?

Judy: Well, I'll start. I think that, first of all, it's our attitude that we bring as the leaders of this work that we're modelling curiosity ourselves. I think that for us, because it's been voluntary, that has been huge in our province, that hasn't been mandated by the government. When the government tells us to do something as teachers in British Columbia, we tend to be rather rebellious and it doesn't even matter if it's a good idea, we'll refuse. In fact, we had our Premier was very big a few years ago on healthy food, and instead of eating carrots, teachers ate Cheesies.

Mandates have not worked for us, voluntary participation and then thanking people. In our schools, they're volunteering at the end of the year, we ask every school to share publicly what they've done and we find some way of thanking them for their work. It may be a small grant, it may be some additional professional learning or resources, but saying thank you, having it voluntary.

Then a key for us has been leadership development at the same time. In our province, while we've had the networks, we've also had 10 years

of leadership development at the Masters level at universities and partnership with universities so that we're developing school principals, and teacher leaders, and district leaders with a deep understanding of the inquiry process and that's been really helpful. Out of that group, have come the next generation of system leaders that are extending and deepening the work. Voluntary, invitational, gratitude, some respect and then developing leaders through formal leadership programs, I think has helped in our context.

Linda: I think I would add parties. Once a year we have what we call a symposium, it's now it's grown to 350 people. But let's say it was the 200 people in this room, every May you would know that you were going to come to a party if you were a network leader. You would come to a nice place and we would have some lovely appetizers, and some wine, and maybe some music. Then we would learn something for the next day and a half, and it feels like a celebration every time we have that symposium.

If somebody in this room was willing to lead that, by the way, these parties have to take place in beautiful locations. We have a very nice wine industry in BC; so in wineries, in golf courses, in the winter when they're not busy, our weather's bad, so we have lots of nice places. But that sense of fun as a profession, and coming together and being proud of each other's work is on behalf of our country, our region. That's the feeling that we want.

And BC, we do work with the region above us which is called the Yukon, which is a very...it's filled with bears and moose and exciting animals, and it's a very remote part of the world. But you know what, it's just like a big family reunion when we get together. And I think that's part of sustaining the work is that sense of we're a group of people who are going to stay with us, and we're going to work to get those last group of the hardest kids across that stage. You need to have a party to raise your spirits and to say, "Good for us." I think that's important.

One of the advantages of the...following what you have just said, one of the advantages of the ecosystem that we have now is precisely that both public administrations and associations that are being facilitators of the process

of kids, are just catalyzing what the schools already are doing. We have hundreds and hundreds of schools with great professionals that are working hard to try to do this update and to put the school in a position able to both to answer these big challenges and to this idea of dignity purpose and opportunities that you mentioned before.

The question is that the pressure for change sometimes creates a puzzling situation on whether to start with and the spiral of inquiry somehow try to go step by step on the process of change not to feel overwhelmed by it, but the process of change at the same time could be of different levels, it's not the same to try to transform the whole assessment system of the school, than to try to create some interaction among several disciplines to do an interdisciplinary project.

How do you think that the methodology that the spiral of inquiry could be used in these different levels, thinking of the principal of a school or even a group of teachers, how do you think that they could understand the methodology to answer different levels of change, a more systemic for the whole institution and a more particular for a group of teachers on a particular level?

Judy: I'll just start with one example and then Linda will have a smarter answer. An elementary school, primary school, in the identification process of what's going on for our learners, we're concerned about a group of grade five and six, so 10 and 11 year olds who were showing increased levels of anxiety. The initial response would be let's deal with anxiety, let's do some mindfulness training, let's do yoga, whatever it is. But they were forced through this process to go more deeply and then to go back and to really listen to the learners.

What they found out was that underlying the anxiety, it was different in mathematics than it was in language arts. And it's because the assessment practices in mathematics were different than they were in language arts, and it's because the teachers were less confident in math than they were in language arts. So they were using a very traditional method of assessment.

Instead of dealing with anxiety, they changed their assessment practices. That school, they also did some other things around the

connectedness to the kids, but that school has now made radical changes and is seen as a lighthouse school in reporting to parents and assessment. I think that it's getting really underneath what's happening, then it became a school-wide change, now that's influencing the other 30 schools in their district. I don't know if that answers the question necessarily, but I think that for us it's an important example.

Linda: My view would be that because there are a set of processes, broad scanning then making a shared decision, it works at the level of groups of young people in a school. If we have many young people who want to do service-learning and make their community a better place, they can scan, they can take a focus, they can...and we have groups of parents who know that they grew up in very fixed mindsets, and so they do study group...book study of the mindset book, and watch the videos, and decide that they want to start using different kind of language at home that's more growth oriented and less fixed to complement the work of the school.

We have seen, I think we're going to see here, we have 16 districts that are working as a network, as a consortium, and in each one of those 16 districts, they're trying to make this a way of life. And they approach it...really the processes are the same. I think there's an elegance to the fact that you can use the same processes. And we actually now, and we learned from Australia, they don't call it the spirals of inquiry, they just call it the spirals, and every two weeks every teacher gets together during school time and works on a shared challenge, and other schools come and watch through the miracles of technology, watch them doing their intellectual processing so that they can learn to do the same thing.

We've seen now how it can work in whole systems, we also, and I know this is being videotaped, so I would hope people wouldn't tweet this, but we've also been in countries and places where we can see what they're doing is not going to work because there's no voluntary spirit. To us to say you can have organized top-down network means it's not a network, it was a Spaniard who taught us all about networks, I mean they're voluntary, you come together to create a social movement to do something good.

It can work at all of the different levels of the system, but you have to have the right conditions; you have to have the teamwork, which you have here, you have to have the intellectual conversations to understand the processes, you have to be willing to give something a go, which Gaudi clearly was good at that and [unintelligible 00:45:38] and other people who are...that's part of your national character, to give things a go, to dance on the square and you need to have that spirit.

And somebody will get this book at the end of the day, this is the very...we always bring something from our territory, it's part of our tradition, and this is a book about what bears are, those scary big animals. This is what the moon, the phases of the moons look like to bears, through the eyes of bears, the worldview of bears, on our very furthest island. So you're here in this beautiful Mediterranean, we're over there in the Pacific, and seven-year-olds have made big fabric art and have thought about what the bears look like. We'll pass this around and then you'll get it to come into your life if you wave at the end, so have a look. Even works for bears!

The magic recipe. We need to know what the purpose is and we need to go all together towards the same direction, and the learners need to be connected to that purpose and they need to feel they are concerned. We have very high expectations because you said all the learners need to have two adults believing in the success of their future, that's very important but that's very ambitious at the same time.

Then another basic thing and it's very basic but it's very important, you need to ask the right questions. The fact of asking to have two adults that believe in you, well that's very simple but that's crucial. This may be relatively simple. What I think is more complex is this idea of coherence among teams, how all these different people...we know that our actions will impact on this same group of pupils. How can we make sure that all our actions are coherent? How can we make sure that they perceive from us that we are all aligned?

And how can teachers advance in this coherent way? And so how can we make sure that our messages are all coherent? To me, these coherent

conditions are complicated because sometimes teams are very volatile, people change jobs, so how can we make sure that this is part of our school culture? How can we have this coherence, that's to, me, the most complicated thing.

Linda: No, they're all really good questions. I think for us, the coherent comes through the dialogue and it comes from taking a focus and it comes from sharing a language. If we are talking with young people about what should our focus be, we're going to do something good for our area of Barcelona. And we talk that way in the classroom and then we talk that way with the others, over time through the networks, it simply becomes coherent, the coherence grows in that healthy ecosystem way.

Where I think you don't get coherence is where people do things and we'll get coherence by commanding that people do things. As we said, we're a rebellious people, it doesn't work in our culture, it might in some of the other cultures. I say, share a common language, that's a learning oriented language, share the seven learning principles because they're powerful and helpful, share frameworks that make sense to you, don't accept their framework just because somebody comes and says we love Barcelona and so this makes sense to us, interrogate it.

I think what we've seen, I think it's very interesting in Sydney Australia to watch the networks there that are growing, they have the support of the department but it's led from the schools. They are getting incredible coherence through their work. It doesn't mean that everybody chooses the same focus, it just means that they can talk together about essentially school-by-school experiments that are powerful and well-informed. We do believe and that would be something the study of action, individual action research by researchers hasn't been able to show a collective impact.

I think the study of this kind of process has come out of when schools work together in coherent ways in an informed way they make an impact, how can we do more of that as our professional learning. I think Helen if she was here would say the whole spiral process, that's how really strong professional learning happens. We have found it actually it works on the business side of our organizations too.

The business people say well this is exactly what we do, including by the way governments don't like the word hunch, they'd like to change that to hypothesis and other more challenging words. Part of it is using everyday language that a child can use, a parent can use, a trustee can use, a mayor can use, I'm sure your mayor, this would make sense to her. If you can use the same language there's a power to that and it creates an energy. I think that does give you coherence over time.

Judy: I just add to that, having regular rhythms also really helps. In our networks there's a set time that schools meet, it's four times a year, it's not a lot, but they know that this is when they're going to be getting together then within the school to have regular times when this is front and center on meeting agendas whether it's every two weeks or whatever. That it's always visible and that we also make it visible to our parents and to our communities as well. There's some public sharing about what we're doing that I think helps create that coherence, but the language is really really important.

This idea, the logic of the framework and of the maybe the horizon, the common horizon that the whole system has on how to update. Sometimes the problem with the change even with the hunch is that you don't know whether you are doing what is relevant to do. You might be doing something that is not your core problem and you are doing something that is on the side, on the initiatives that we all share.

The one led by the consortium particularly we have this idea of the purpose that leads totally of what you said. This idea of empowering kids to be able to have a purpose on their lives positive contribution to society, being able to have options for their lives and also the seven principles as a way to somehow clarify which kind of learning practices you have to have to reach this purpose. Now one of the of the advantages of the methodology is that it uses the framework as a way to improve without getting lost, could you go a little bit deeper with that?

Judy: I'm thinking.

Linda: She's thinking.

Judy: I think the question is how can we use this framework to keep the focus on what's important without getting lost.

Let me say it in another way. You have one of the risks of precisely the pressure for change or for innovation, is that you do innovations of things that are useless. You use an iPad you put iPads for all the kids to do the homework that they were doing in the '60s. You change the...?

Judy: The timetable.

Exactly, so how could the methodology be used to empower schools to take right decisions for right challenges?

Judy: Yes, so that's why the seven principles have been so important for us. Being involved in the ILE work as we were and we were one of the learning labs and being immersed in the theory behind the seven principles has been enormously helpful. We had at the same time as that work was taking place through with the OECD in our province there was a lot of excitement around technology and around innovation.

A lot of stupid things were being advanced or suggested because it was innovative. We loved the seven principles because the statement from that work was unless all of those seven principles, not just one but all seven are in place, you can't call yourself an innovative learning environment. That provided the discipline that we needed to avoid less robust approaches, that's part one.

The second thing is that we have to create the cultures within our schools that we challenge each other's assumptions. Everybody has an opinion about why things are the way they are in the school, sometimes it's the person with the loudest voice that dominates that discussion. We need to have the courage to confront that and to really say what's actually going on for our learners and how do we know, so that we are pushing each other's thinking in a very critically respectful way.

Linda: I would say I think and again I would use the example of the

Australian schools in the Sydney area, in the poor area of Sydney. They have a very disciplined way of making sure that every teacher who comes to one of these meetings prepares a short piece of evidence-informed study. If they're trying to improve in an area and they've chosen a focus they actively search on the internet in intellectual sources for the latest thinking and they actually use a timer, we would not do this in Canada, but they use a timer. People are only allowed to talk for two minutes about what they've learned but the meeting starts with what they've found in the world that's powerful. I think that discipline over time is pretty impressive because there are packages in North America you can imagine there's a lot that say buy me and everything will go up by 10%, it's like a pill. Most of the things that we're trying to do collectively are not like that, they require dialogue, they require a relationship, they require deep learning, deep learning means that we'll transfer to another situation and I also would like to do a shout-out to your facilitators.

We've seen a lot of facilitators I think in a very skillful way, the ones that we've seen so far know how to build in in a gentle way, maybe we need a little bit more evidence about whether that would be a productive approach not in a way that squishes people's enthusiasm but in a way that informs that with dignity and gives people a sense of purpose. There's a role for powerful facilitation and that's to hopefully in an ongoing way.

I like this idea of slowing down and also having this space in this rhythm, this sequence. Then something that you have said, you have said that this work of inquiry has to involve all the community agents, so young people, teachers but also families. How can we also make sure that there is this conversation at home? This conversation on education beyond the homework and the grades, so how can we foster this curiosity in the households. How did you do that in Canada?

Linda: I'll start on that. How many of you are teachers or directors, principals? Here's one strategy it put the four questions in a little brochure or a little blog. If your parents use technology then at the right time in

the development of the school you send those four questions to parents and say, we are regularly talking with the young people in our building about-- whether they feel that there's two people who believe in them at school. We're asking them about what they're learning. We're asking them how they're going and what their next step is. We would like you to do that too. That starts a dialogue. You can't send that home too quickly before the teachers actually know the questions and have tried them out yourself, because that's embarrassing the teachers.

You want a chance to lead in the game, but at a good point, our most rapidly improving equity district in the province the superintendent used that strategy in two places. Our graduation and completion rates in those districts over three years have improved by 30 or 40% with the most difficult children. I would say that is a one powerful strategy. The second thing I would just say quickly is that New Zealand in their network strategy has young people doing learning maps. If we were in a class there, we would all put our picture of our self in the center and then we would draw arrows of different thicknesses to the people who help us learn and who we help learn. They take five months to build those maps, but those maps go home to the families. They go out into the community. Everybody consults on the maps.

In Canada we'd be too impatient to take five months, but in New Zealand that's been a powerful strategy. By the end of that five months, and it's easy to learn on the internet everybody has come to a consensus. Then for the next three years, they follow that as the focus because it's a community focus not just a school focus. We think that's powerful, we admire that work.

Judy: The other thing that I'd say, if you're interested in the learning Maps, the website for it is infinity learns. It is a very good strategy for involving parents in understanding what's going on.

Infinity learns?

Judy: Infinity learns.

About what?

Judy: Just if you google Infinity learns it'll come up.

Linda: <http://infinitylearn.org/>

Judy: Yes. The other thing that we found is that Carol Dweck's work has been really helpful. For parents to understand mindset and the language that we're trying to use with learners that with effort, strategies and support, they can get better at just about anything. The kind of language that encourages that stance as opposed to discourages it, we found parents have responded really positively to that. Having that conversation first before we explain the changes that we're making it has been really really helpful.

The last thing is just simple strategies. Often at least in our culture when kids come home from school the mother or father will say, "Well, how was school today?" Or "What did you do today?" It's a conversation ender. They say, "Nothing, were fine." It's providing parents with a list of questions that they can ask that open up the conversation that are connected and linked to the focus area of the school, has also been really helpful. Just very simple questions that change the conversation.

The last thing is that, you may do this already, our parent-teacher interviews are now three-way interviews, where the student leads the conversation with their parent and their teacher and shows the portfolio of their work. It's very much owned by the student as opposed to the teacher or the parent.

Just a very fast question before turning to the participation of the other people, related with the interaction with universities. One key element for education change is the impact on teacher training. Also the development of creation of evidences, assessment et cetera. Here one of the organizers of the event their work tomorrow is holding a seminar that we are going to go deeper on that. Maybe it could be good if you could explain a little bit. Your work with universities related with both interaction with teacher training and assessment and determination of evidences.

Linda: Okay. It's partly a sad story and then it's a happy story. At the beginning through the networks we tried to make a link with our local university because this work is practical. The person to whom we were speaking couldn't see a link. It's an embarrassing story that we only usually tell after we've had a glass or two of wine. We looked for partners and universities in other countries. We found the University of Auckland very powerful research on professional learning and on leadership there. We found powerful assessment work in Ontario and Dr Lerner Earl on her assessment as learning and Dylan William and other people. We sought out the intellectual community from other places.

Interestingly, what's happened is that there's been a change of personnel at the level of the most important University in BC is the University of BC. Now they're actually a sponsor of the work. Interestingly, first of all the the book *The Spirals of Inquiry* which they asked if they could use with their student teachers, was an important step. Because they produce about 1000 student teachers a year. Also the production of the playbook which is a children's version of the idea, it's in plain language it's got illustrations, has been an important role for the universities because the faculty has been able to adopt it.

It's actually being used in a refugee camp in Kenya which is a joint initiative of the University of Moi and of UBC. Helping young people in the camp learn to be teachers so that they can teach the younger children in the camp. I think when we see those kinds of links and now thousands of teachers coming into the profession and being inducted into the profession in schools that are using the spirals as adults. This has really helped the work.

Judy: Yes. Specifically, in five of our nine teacher education programs now in the province the Spiral of Inquiry is the methodology that new teachers are learning. Their practicum placements or their practice teaching placements are with teachers in schools that are also using the process. Now we've got instead of the students being on campus, the universities are bringing the learning into the school. Their teacher training is taking place in schools. That's been quite significant. Then the master's programs have been extremely important as well.

Now we have graduates of master's programs are now teaching in teacher education programs. It's becoming a deepening spiral of

connections through the universities. Initially, no support, no interest and just some humiliation. Now, a lot of support and a lot of interest and really really taking hold. Again, it's the bamboo metaphor that we just didn't give up. Now we're in a very positive place.

Open questions

Can you tell us about any successful experiences with Aboriginal populations?

Judy: We use the term in Canada Aboriginal to refer to First Nations, Inuit, which is a combination of French-Canadian and First Nations, and Inuit, which you may know as Eskimo. It's a big term. It's a struggling population. We've had for the last nine years, a network focused on Aboriginal education. What we found has been phenomenally important. It was when teachers were able to approach the challenges of dealing with the needs of their Aboriginal kids through curiosity as opposed to through guilt, that it really opened things up.

That before a lot of teachers felt, "I don't want to touch this. I don't know what to do. I'm gonna make a mistake. I don't have the resources." It's been way more successful than we thought initially. It's the the spiral when we say, "What's going on for our learners?" Or "What's going on for our aboriginal learners?" "What's going on for their families?" "What's going on for their communities," "How can we work together?" It's been really encouraging.

We have the most rapidly improving results for our Aboriginal kids in British Columbia than anywhere else in Canada. In Australia, say it's early days that there's still a lot of work to be done. However, there is interest and there's curiosity now. In New Zealand is probably where we look to for the strongest emphasis probably over the last 20 years on Maori and now Pacifica. It's a story of hope and of promise and of creating the conditions for teachers to feel capable as opposed to defeated.

Linda: I would say our third goal of our networks is that every young person and every adult in British Columbia and the Yukon will acquire an

indigenous worldview because we think that's the way to stop racism and the effects of colonization because the disadvantage has been created by removing religion, language, culture, you would have some feeling of what that's like, not to have your language and culture appreciated and valued, actually taken away from you. It's a powerful question and it's the most important thing that we think that we can do, and by acquiring and that's why I liked the bear book, what does the moon look like through the eyes of bears.

By acquiring a different worldview we know that makes all of us smarter and particularly in the indigenous worldview we've been influenced by to know, to be, to do and learn to live together. What that framework didn't provide from Delors it didn't say and let's all learn to respect the natural world. In every country where there's an indigenous population that's what those cultures were always good at, they always had a deeply respectful relationship with nature. They made decisions about working with the natural world around what would be good over the next seven generations.

From our perspective if the world needs anything right now it needs to have a deeper, that's why we love the nature schools and we loved Rosa who we met earlier today, your educational pioneer who was doing nature schools back in the early 1900s, yay Rosa. Clearly an indigenous spirited woman of her time.

What can you do to motivate the teachers who are least enthusiastic about the changes?

Linda: There's some wonderful research, this is not what I would say to them but I would say to you. There's some wonderful research in New Zealand that said teachers do not resist change they have just been on the receiving end of terrible changes that weren't sustained, that were goofy in the first place, "Get this computer and your life will be better." Well, there's no plugs and there's no internet but take it anyway. That they've learned to be cautious about change and that if we're really well organized in our rhythms and our approaches every teacher will change.

I believe that research and it's a very powerful study. If you take that perspective, yes, absolutely there are people who will be more and less enthusiastic, then the leadership question for those people who are formal leaders or informal teacher leaders who you have in this room is to get the grain size right.

That is to take the piece of change that it's the zone of proximal development for adults, it's to get the piece of change that's the right size that the person won't feel paralyzed with perfection, I can't do this, that they actually can. We have found that the assessment for learning repertoire is a very good place for people to start because once young people can actually figure out what it is that the teacher is trying to help them to learn and the teacher has that satisfaction of knowing, "They actually understand that I'm trying to get them to be better Catalans or to be a force for good in the world or learn whatever powerful things you want them to learn."

Then once people get on that it's like one of those airport sidewalks, your step on it feels like a little step you hold on but before you know it you're creating the next nature school. I think the skill is in the grain size and we both collectively worked with tens of thousands of teachers. Some of our most excited teachers are in their age 50s and 60s and 70s, they went into teaching to make a change, they got discouraged by bad systems and they've come back to life in the last five or 10 years of their career, it's a very exciting thing.

The grain size and managing the risk so people don't have a nervous breakdown when you're telling them about their change, seeing somebody who's like them get the zone of proximal development right.

Judy: I just add two things to that. I think that the growth mindset research, that's why we emphasize that so often, is having that discussion within the staff around the impact of language, for some teachers then thinking about their own experience as learners and the impact of that teacher who believed in them can start to create their thinking and also thinking about their own children. Really having that conversation around the impact of mindset is number one, the second thing is not waiting within the school for everybody to be ready to move but to get started and to always find this place for people to come in when they're ready.

It's never a closed group or a fixed Club within the school, it's open, we're going to support the people that are on the move and we're always going to be encouraged to the ones as they're ready. When I talked earlier about the regular rhythms that on a monthly basis people are sharing what they're doing so everybody is learning whether they're taking the step then themselves or not.

Finally we just haven't found teachers who when we ask that question can you name two adults who believe you'll be a success in life, sometimes it is those teachers that we think are fixed or negative but they have an impact in a different way on kids.

When we get that information and we tell those teachers that, "I was talking to Marina today and she said that every day you do this and how important that is to her." we just see people grow so it's taking a more strength based, appreciative stance and finding those even if it's we have to work really hard to find it but to find those little gifts in the people that are most resistant we can open them up.

Linda: I would just add and this is for those of you who are interested in practice, our schools are having a lot of fun by having growth mindset assemblies where every adult says, the principal will come out with his ukulele and say, "I've never played a ukulele, here's how it sounds right now." Then they'll come back the next month and they can play one chord or something like that. It creates a culture so then other teachers have said...one of our famous stories is about a teacher her class assigned her to learn how to do a cartwheel and they gave her YouTube clips and they watched her, they coached her. It was hysterically funny, she never got that fabulous but she did get better.

Just by making not being perfect socially acceptable, making learning what's acceptable and risking a little bit, creating that culture. At the end of two or three years every teacher is going to the assembly and saying, "This is what I'm trying to learn Catalan, here's my three words of vocabulary," and then people are saying, "Good for you," and giving the people a bit of coaching so that you can see that learning happens, fun though.

Judy: The last thing I'd say around that is that teachers want to do the right thing and they don't want to make a mistake and they don't want

to do anything that they think might harm their kids. We need to create the conditions where it's all right to try something and not have it work. We really like the school in Australia that has what they call Flop Friday, that every Friday at the end of the day they get together and it may be at the pub, wherever and they say, "What was the one thing that you did this week that was a real disaster?"

You can laugh about it and then the conversation is what are you going to do now as a result, what are you going to do next. To just create that space where it's safe to try something, what it's not okay to do is to try something it doesn't work and then give up, it's "We're going to try something and then what are we going to do next?"

Linda: You could learn from Finland because we're all comparable sizes, they have apparently in October a national day of failure where everybody celebrates something that they've done wrong that hasn't worked and people come into the schools and talk about what they learned from that failure. I think if we could wave our magic wand over British Columbia and the Yukon and the Catalan how much fun would that be? Here's what I tried and it ended up being stickets or something good, an invention.

What do you mean by the slogan, 'No blame, no fame, no shame'?

Judy: That it's really important to take responsibility ourselves. When I was a teacher it was easy for me to blame my principal like, "If only he did this my life would be so much better," and then I was a principal and then I'd say, "Well if only the district did this," and then it was, "Well, if only the government did this." I've worked in all of those roles so I've learned that in every place blaming somebody else doesn't work. Also we've learned that holding up individuals or holding up schools as the gold standard isn't necessarily that helpful either.

Anyway we've just say no blame, no shame, trying something and not having it work is okay. No blame, no shame and no fame, that we all have something to contribute. Taking responsibility don't blame others, don't humiliate anybody. Don't hold up the golden icon.

Linda: That's why the language you're using is, from our perspective, good. Having a reference school where you can go and see some things, that you can refer to it. That's a lot different than saying, "And here is our model school." Immediately at least for our Canadian teachers, they say, "I don't want to go there. It's a model. Maybe I'm not like that. I'm not beautiful and elegant. But a reference school where I can learn something, sure, I'll go there."

Can the spiral of inquiry methodology also be applied in secondary education?

Linda: I taught secondary, and then intermediate, and then primary. I went entirely the wrong way and should go the other way, because I was trying to answer that question. Why aren't these young people curious about the poetry I'm teaching? How could you not like poetry? I think the answer is, you want everybody to engage in the processes because they're powerful processes that can give you a sense of teamwork and a sense of collective efficacy, which is a good thing.

Absolutely, it helps to have the elementary schools sending on learners and staff who know how to think in these ways. In secondary, I think, a lot of our experience has been that the youngest group, for us it's grade eight. If the team that works with that group will begin to teach the growth mindset even they if don't know it, that that can build a base. But we have seen there's a school again in Australia, a secondary school where once a week every teacher asks their class, one of their classes, "What is something that we did this week in our learning together that worked for you? What's one thing that we could do differently that would work for you better?"

Just the fact that young people are being asked that, it didn't take very much long. It didn't take too long. That school has transformed, because young people feel that they're being listened to. You want to be a democratic Catalan, you need to listen to the voices. This was a powerful change. They actually did it twice a week. We wouldn't do that. We would do it once a week because we're more conservative. But I think

it has to be everybody. It has to be the universities too.

Judy: Yes. I just say, yes, secondary is more difficult. It's very important. One piece of advice, do not separate your networks into elementary and secondary. Have them together. We've seen that teamwork is really, really important. It was encouraging today to say that there were secondary schools there with the primary. The other thing, I think, for secondary students who have become enculturated in a certain way just to take small steps with them and let the kids see that it's not the end of the world that you're trying something different.

Linda: I would also add, you've got a stronger early childhood approach than we do. We want yours, but we have our not very good one. We're trying to use the same approach there. As we work on well-being, we're trying to get doctors and nurses to think in these same ways, so that again we can get an energy going that we're talking about the same kinds of things.

About the authors

Judy Halbert and Linda Kaser are co-leaders of Networks of Inquiry and Innovation and the Aboriginal Enhancement Schools Network. They have served as principals, district leaders and policy advisors with the Ministry of Education in the areas of innovative leadership, district change, rural education, literacy and Aboriginal education.

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They have worked intensively with leadership groups in BC as well as in Wales, Australia, New Zealand and England. They are deeply committed to achieving equity and quality for all learners – and to networking for innovation and improvement both at home in BC and abroad.

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