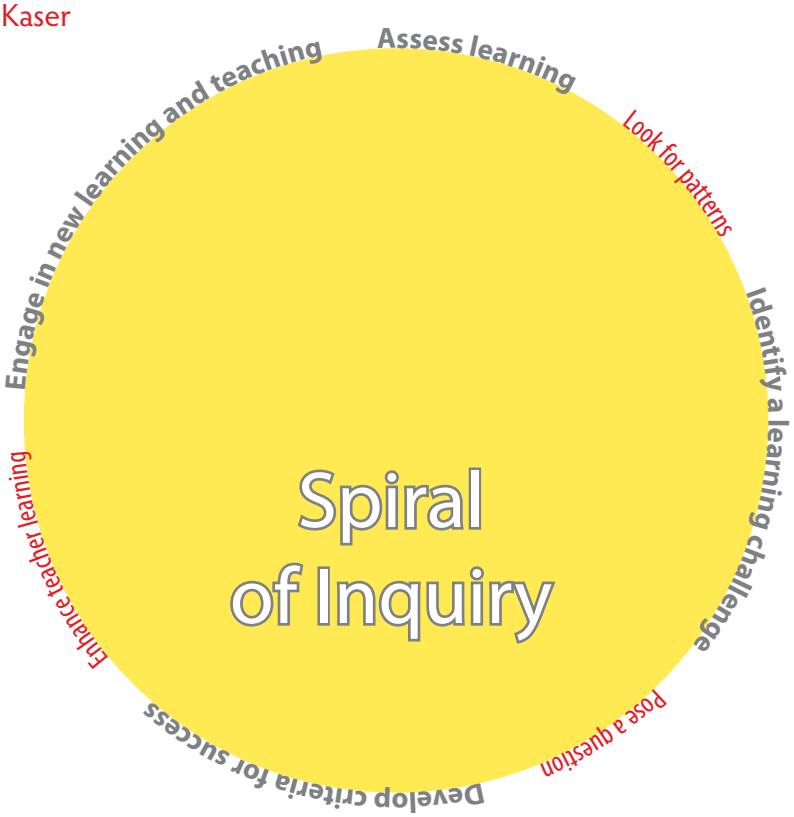
Networks of Inquiry and Innovation

Two BC educators write about Innovative Learning Environments and outline how they can lead to new designs and improved outcomes.

by Judy Halbert and Linda Kaser



In Portugal, children of travelling circus families often enroll in more than 40 schools per year. *Escola Movela* (The Moving School) was designed to increase the retention and success of these learners through a careful blend of personal contact, regular face-to-face connections and thoughtful use of technology. The *Chiamale Emozioni* School (Call Them Emotions) is organized around the promotion of life skills, socio-emotional competencies, critical thinking and active engagement. It is closely connected with the local teacher education college in Locarno, Switzerland.

At the Saturna Ecological Education Centre, the environment is the main learning resource. Learning takes place inter-generationally, independently, and as much as possible in the community and natural world. The Culture Path program in a school in Finland aims at enhancing the social, emotional, and physical well-being of children through culture and art, by ensuring that every student has access to the city's cultural services. Teachers develop practical strategies to implement cultural education in nine critical paths related to the arts, libraries, and theatre.

In the Gold Trail School District, an initiative connecting three remote elementary school classrooms has been designed to dissolve geographical boundaries and overcome rural isolation. Learners in these communities participate in video-conferencing, online collaborative work and literature circles, and the exchange of student-created multimedia content. They also meet together several times a year to build community through personal connections. From Portugal to Locarno, Lytton to Finland and Saturna Island, what do these initiatives have in common?

In each place, educators have responded to the needs of their learners and communities by thinking in new ways about learners, teachers, content, resources, time, pedagogy and organization. Each of these settings has been identified as a promising international case study of an Innovative Learning Environment (ILE).

What does that mean? What's the connection with BC? What does this have to do with networks of inquiry and innovation here at home? In this article we will provide a short history of the ILE research study, describe the principles of innovative learning environments, provide brief examples of the ways in which schools in BC

are at the leading edge of new forms of learning, and outline the approach to inquiry and innovation that informs the work in the BC Networks of Inquiry and Innovation.

Innovative Learning Environments

For the past few years in BC, policy makers, school and district leaders and teachers and community members have been engaged in discussions regarding the ways in which the system can become more responsive to learners. These discussions, as well as consultations and policy reviews, are paralleled in developed countries around the world. Despite consensus on the need for high levels of learning for all citizens and innovative thinking in knowledge-based systems, many schools in many countries still operate as they did at the beginning of the last century. There is a global desire for change.

Several years ago the Organization of Economic Cooperation and Development (OECD) in partnership with their Centre for Educational Research and Innovation (CERI) launched a study of innovative learning environments. The ILE study was designed to answer the question: How can today's schools be transformed to become learning and teaching environments that develop lifelong learners with the attitudes, skills and knowledge required?

The first phase of this project focused on how people learn and under which conditions they can learn more readily. This led to the publication, in 2010, of *The Nature of Learning: Using Research to Inspire Practice*. As the title suggests, this compendium aims to inform educational policy through evidence-based reflections from leading international educational researchers and learning specialists.

The second phase involved an international meeting in Helsinki in the fall of 2008. In January 2009, the BCSSA hosted the International Congress of School Effectiveness and Improvement (ICSEI) in Vancouver. As Congress Conveners, it was important to us that the program reflected the quality inquiry work taking place in BC schools.

David Istance, who heads the Innovative Learning Environment study, attended the Congress and observed first hand the learning initiatives being presented by teams of BC educators. As a result, BC was invited to be part of the international project team so we have been actively seeking out and submitting potential BC case studies. The Gold Trail Connected Classroom initiative and the Saturna Ecological Environment Centre are just two BC examples that meet the criteria for inclusion in the project. We know there are many others.

One of the key outcomes from the research informing *The Nature of Learning* was a series of seven broad, transversal conclusions about learning with significant implications for the design of learning environments. The force and relevance of these conclusions do not reside in each one taken in isolation from the others. Instead they provide a demanding framework in which all should be present for a learning environment to be judged genuinely innovative. These principles suggest that a quality learning environment:

- Makes learning central, encourages engagement, and develops self-regulated learners;
- Involves learning that is social and often collaborative;
- Is highly attuned to the learners' motivations and the key role of emotions;
- Is acutely sensitive to the individual differences among the learners including their prior knowledge;
- Is demanding for each learner but without excessive overload;
- Uses assessments that are consistent with its aims, with strong emphasis on formative feedback; and,
- Promotes horizontal connectedness across activities and subjects, with the community, and both in and out of school.

The research behind these conclusions represents a broad range of perspectives and is current, thorough and compelling.

From the large number of case studies submitted to the initial phase of the ILE project, an international panel identified a select number for in-depth analysis. The Gold Trail and Gulf Island case studies are part of this mix. These analyses are currently taking place with the goal of sharing the international examples of transformational practice. The third and current phase of the ILE project is to prepare these more in-depth case studies as well as to submit additional cases for a further round of study.

While the international endorsement is encouraging, it is more important to us that educators in BC are able to take advantage of the opportunity to learn from innovative work taking place around the world — and in our own backyard. Over the next year, with financial support from the Ministry of Education, we will be capturing on video and in print the stories of innovative BC sites. This documentation will describe the ways in which school communities are creating more engaging and responsive approaches to learners and learning. Some of these sites are already sharing their learning as members of provin-

cial networks of inquiry, which allows colleagues in other parts of the province to learn from their work.

In 1970, literacy researcher James Britton stated that 'reading and writing float on a sea of talk.' We suggest that in 2012 innovation floats on a sea of inquiry. As educators begin to focus on questions of real importance to their learners, in their contexts, innovative practices emerge and take hold.

Networks of Inquiry and Innovation

We have learned a great deal about networks and inquiry from the strong traditions and linked approaches across BC. The primary teachers have long been a powerful force for early learning. Literacy networks, professional specialist associations, and school-community networks all add to the rich set of connections BC educators can access. Individual school districts have also incorporated inquiry networks as a central feature of district change processes including one metro district that has recently developed formal inquiry roles for teacher leaders.

In our book, *Leadership Mindsets: Learning and Innovation in the Transformation of Schools*, we identified and illustrated seven leadership mindsets required to shift systems from sorting to learning. The challenge of creating greater quality and equity for all learners requires that we bring a networked mindset to our work. The challenges are too great for any one teacher, school or even district to go it alone. In recent years we have worked with thousands of BC educators through the Network of Performance Based Schools, the Aboriginal Enhancement Schools Network and the Healthy Schools Network. Our experience with these networks has led to an even stronger conviction about the importance of sustaining and enhancing networks of inquiry and innovation as a key strategy in creating a more responsive system.

The idea of '*every* learner crossing the stage with dignity, purpose and options' has emerged as a compelling vision for network educators. As we sustain the original focus of using the BC performance standards to help all learners coach themselves to deeper levels of learning, Network schools are also inquiring into ways to increase learner engagement, social-emotional connections, self-regulation, critical thinking, healthy living and indigenous knowledge and respect.

For the past decade Network schools have focused their inquiries on formative assessment strategies, drawn primarily from the work of Dylan Wiliam. These coaching strategies are all aimed at developing learners as owners of their own learning. We see direct links between the principles for innovative learning and the formative assessment strategies (*see chart opposite page*).

Network schools are already incorporating many of the learning principles — as well as the coaching assessment strategies — into their inquiries. For the past two years, the staff at Hartley Bay School incorporated Tsimshian ways of knowing in an attempt to increase learner success and engagement. They paid attention to the prior knowledge of their learners and significantly enhanced the connections with their community. The impact on attendance, engagement and academic success has been impressive.

In schools such as Randerson Ridge Elementary and Smithers Secondary, educators are engaging learners in hard work and challenge by moving inquiry to the level of the individual learner and fuelling their desire for learning as a result. As Tristan, Grade 9, stated, "Finally someone asked me what I wanted to learn."

The staff at Don Christian Elementary was concerned about the degree to which their learners truly valued diversity. By designing activities to respect individual differences and prior knowledge, by connecting more closely with the community, and by encouraging more cooperative learning, they saw considerable growth. "By welcoming all the cultures and honoring their place and history in our school, we opened doors. Our children were able to connect with families and open doors between families that did not exist before."

Nala'atsi is an Alternative Secondary School for Aboriginal students in Grades 10-12 in the Comox Valley. Attendance, engagement and a sense of connection with the community have been challenges for these learners. The staff inquiry led to Nala'atsi students meeting with Aboriginal community members twice a week to work together on projects designed to promote cultural awareness and develop shared knowledge. The comments from the participants reflect the positive impact on social-emotional learning and horizontal connections:

- I highly recommend that everyone do this project … lots of fun times but also lots of serious messages in the writing pieces. *Female age 17*
- My mask and my literature piece are hanging in a place of honor. *Male age 17*
- I took my mask and the poster to my woman's group and they were amazed by the messages and the artistic ability of our entire group. *Elder age 76*
- I thoroughly enjoyed myself and was sad when it was over. I looked forward to coming into the school and doing art with the kids! *Elder age 84*

We appreciate the generosity of Network schools in sharing their inquiry learning through the publication of their case studies. These case studies provide a rich set of examples of the ways in which schools are developing imaginative approaches to meeting learner needs. They also show how what can begin as a small inquiry in one setting can lead to significant innovations in practice with wide spread impact. The evolution of intentional cross grade learning strategies from its early days in Surrey, to the work at Glenview Elementary in Prince George that is influencing literacy practices across BC as well as in New Zealand is simply one example.

We also look forward to learning from the experiences of the schools involved in the rural literacy and growing innovations projects as many of these sites have long been involved with networked ways of thinking and change. As we make deliberate efforts to incorporate and link the findings from the international research on innovative learning environments with a persistent emphasis on self-regulated learning and formative assessment, we believe that we can move more quickly to realize our vision that 'every learner will cross the stage with dignity, purpose and options.'

Learning Sciences Principles	Coaching (Formative) Assessment Strategies
Learners must own their own learning – including learning how to be actively engaged and meta-cognitive.	Learners are the owners of their learning.
Learning must be social and the learning environments must encourage well-organized cooperative learning.	Peers are developed as thoughtful learning/teaching resources for each other.
Learning professionals need to be tuned into learner emotions and motivations, and understand the key role that emotion plays in learning.	Regular, thoughtful, formative feedback helps to move individual learning forward for each learner.
Learning professionals are acutely sensitive to the individual differences among learners, including their prior knowledge.	Learners are the owners of their own learning.
Learners are engaged in programs that demand hard work and challenge from them – without overload.	Learners are involved in responding to effective questions in discussions, activities and tasks that elicit evidence of learning.
Learners are in an environment characterized by clarity of expectations and formative feedback.	Learners have clear quality criteria – often co-developed with their teachers – and know on which specific aspect they need to focus.
Learning is connected across areas using horizontal connections – across areas of knowledge, of subjects, of the community and of the wider world.	Learners are provided with or develop clear and important learning intentions – that connect across knowledge areas and to life-long learning.

NOII - A Disciplined Approach to Inquiry and Innovation

We did not know when we started the Network of Performance Based Schools that we would still be engaged in system level inquiry a decade later. Nor did we anticipate that the work of Network schools in BC would have a significant influence on other provinces and countries. We didn't anticipate that educational study groups from Wales, New Zealand, the Yukon, Ontario, the USA, Australia, the UK, Malaysia and Qatar would come to BC to see the ways in which networks of BC schools are working together to strengthen learning.

We didn't expect that the model of NPBS would be used to address active, healthy living. And we hadn't imagined the positive response from schools encouraged to focus on the goals of district Aboriginal Enhance-

ment Agreements through inquiry at the classroom level as a part of the Aboriginal Enhancement Schools Network. We did not predict that AESN would be described by the deputy of Aboriginal and Northern Development Canada as a model for other provinces and countries.

At the same time as inquiry is becoming an increasingly common approach, we must be alert to issues of depth and sustainability. We have seen, even in the past decade, a number of programs, initiatives, new technologies and innovations that have over promised and under delivered. Inquiry requires a disciplined approach. Innovations need to be based on a deep understanding of learning and learners. The international learning environments research provides an invaluable evidence base.

Conceptualizing the inquiry process as a spiral of double and triple loop learning provides a useful framework and a disciplined approach to inquiry and innovation. There is no shortage of questions to explore. Masters papers, action research projects, and individual school change projects often start with a question. Unfortunately, these questions are not always connected to student learning needs. They may be interesting, engaging, and even a lot of fun for the adults involved — they just don't lead to substantive changes for learners.

We have argued for some time that powerful, disciplined questions must be directly linked to identified student learning needs; they must drive professional learning; they must lead to real changes in learning and teaching; and, the impact must be assessed. The more we work with the spiral of inquiry, we more we realize how much there is to each stage. We are currently working on an inquiry handbook based largely on the experiences of leading educators across BC and we plan to have this available by 2012. For a brief description of the network spiral of inquiry and the key stages, please visit *www.noii.ca*

Innovation and Inquiry – Good Work in BC and Beyond

These are challenging times in education – both internationally and locally. We have been through tough times before in BC and we have become stronger as a result. We remain optimistic that educators will continue to focus deeply on what matters most – and will experience the satisfaction that is inherent in good work. In their book, *Good Work, When Excellence and Ethics Meet*, Gardner, Csikszentmihalyi, and Damon point out that "few things in life are as enjoyable as when we concentrate on a difficult task, using all our skills, knowing what has to be done" (p.3).

The task we are facing is difficult and we know what has to be done. The system must be transformed to meet both the quality and equity needs of all learners. We know much more about learning and how to reach all learners than was conceivable even a decade ago. We have seen how powerful it is when teams of educators work together to explore important questions – across roles, across schools, across districts and across countries.

We have a greater understanding about the ways in which leadership – both formal and informal – can create the conditions for inquiry and innovation to flourish. There is a strong evidence base around the forms of professional learning that have a direct impact on student learning. This new knowledge as well as the imperative to shift the system to a deeper focus on learners and learning compels us to act. We say to our graduate students that once we have the knowledge about what today's learners need, and we fail to act on this knowledge, that this is akin to educational malpractice. Strong words – and we mean them.

Inquiry isn't about the pursuit of the perfect question or the next exciting project. It is about being open to new learning and taking informed action. Innovation isn't about sprinkling initiatives like pixie dust hoping they will stick, nor is it about what's new and groovy. Innovation is about recognizing that old forms are not working for all learners, identifying what the key needs of our learners are, and then creating new forms based on knowledge about what does work. We agree with Gardner and his colleagues that real happiness is found through taking on worthy challenges, often against formidable odds.

The schools in the ILE research study, as well as hundreds of BC schools BC, are exploring ways to engage all learners in new and powerful forms of learning. More young people are experiencing success as a result. We welcome the opportunity to probe more deeply into the international case studies and to share the stories of inquiry-oriented innovative sites. There is much to learn from the leading edge work in BC and beyond.

References and notes for this article are on page 18.

Judy Halbert and Linda Kaser are co-leaders of the Network of Inquiry and Innovation and faculty members in Educational Leadership at Vancouver Island University. They collaborated to write *Leadership Mindsets: Innovation and learning in the transformation of schools* and last wrote for Adminfo in February 2011 ("Walking together for a better future"). They can be reached at *jhalbert@telus.net* and *lkaser@telus.net*

skills are surely helped by flash cards or math games and extra practice helps. I also believe a high school student in courses leading to university will need to spend extra time learning the material if they want to achieve, get used to working independently, and maximize their options for the future. Students who miss class time should make up key assignments, but they will often need to have some support to do that — such as prearranged lunchtime or after school help sessions to make sure they are able to keep moving forward. All that considered, I believe that in the vast majority of cases, assigning work to students to be completed outside of class time without any support has little positive effect, and can even be counterproductive for some students.

Changing requires a simple questioning of our belief systems as participants in the education system. I think it's time to replace the beliefs that drive assigned homework, such as: "practice makes perfect," "completion shows learning," and "compliance indicates engagement" with some more complex thinking, and begin using the strategies that research indicates work for all learners, including:

- discussing the course outcomes with students
- thoughtful lessons designed for outcome mastery
- opportunities for guided practice in partners or groups
- frequent and specific feedback
- time for students to reflect on their learning, and
- more flexibility in regard to how students may demonstrate their learning.

If engagement is high enough during class time, students will learn more than enough to be successful, and further learning will be sparked by interest and some time to process what happened in class. It is time to pay less attention to how much work our students have done, and more attention to where our students are in their learning and what we are doing to help move them along the continuum.

I'm not about to issue any kind of "No More Homework" edict at my school. Ideally, teachers, along with parents and students, need to reflect on these issues with the support of our professional learning community, decide what works best for the learning in their classes, then work at an appropriate pace to replace familiar strategies with more effective ones over time. The great thing about my VP and I still having some teaching time, aside from having more direct student contact, is that we get to experiment in practical ways with instructional concepts like the ones listed above, share what worked and what did not work with our staff, and support them as teaching colleagues.

This has been one of the most enjoyable facets of our tenure at the school, and has been much more effective than simply standing on the sidelines issuing advice and quoting research. One topic we can never engage in, however, is how to get kids to complete homework. We don't assign any.

Postscript: My parents and I had a good laugh over the article when I first posted it online. Pop said he didn't think there was any way I could be "up there" all that time and still not get any work done. I told him, "You clearly underestimated my resolve." I attribute most of the achievement gain that occurred the following year to paying more attention in class — a concept now known as student engagement.

This is a slightly edited version of a blog entry posted by Peter Jory, Principal, Lake Cowichan Secondary on his blog, *I Have an Opinion About Learning* (*http://peterjory.blogspot.com/*) You can follow him on Twitter at *@PeterJory* and email him at *pjory@sd79.bc.ca*

References and notes for Kaser & Halbert

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Case studies from NPBS and AESN 2010-2011 are available on the website *www.noii.ca* Case studies from the Healthy Schools Network are available at *www.healthyschoolsnetwork.org* **For a description** of the Glenview work, see Kaser & Halbert, *A Cross Grade Learner Conversation*. Chapter 5 Earl, L. and Timperley, H. eds. (2008). *Professional Learning Conversations – Challenges in Using Evidence for Improvement*.
For comprehensive *Best Evidence Syntheses on School Leadership and Student Outcomes and on Teacher Professional Learning* see *www.educationcounts.govt.nz/publications/series/2515*