

# Spirals of Inquiry

For equity and quality

by Judy Halbert & Linda Kaser

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**What's going on for our learners?  
How do we know?  
Why does this matter?**

## **FOCUSING**

What does our focus need to be?

## **SCANNING**

What's going on for our learners?

## **DEVELOPING A HUNCH**

What is leading to this situation?

## **CHECKING**

Have we made enough  
of a difference?

## **LEARNING**

How and where can we learn  
more about what to do?

## **TAKING ACTION**

What will we do differently?



Spiral design by Teresa Merandi, Hangar 18 Creative Group

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*quality leadership in education*

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## **Spirals of Inquiry: For Equity and Quality**

*Curiosity is the cure for boredom. There is no cure for curiosity.*  
— Dorothy Parker

*We cannot solve our problems with the same thinking  
we used when we created them.*  
— Albert Einstein

### **Introduction**

If you are an inquiry-oriented educator, this book is for you. You may be a teacher, support worker, department head, teacher candidate, vice-principal, principal, faculty member, district or provincial leader. What characterizes you is your interest in creating a better future for the young people of our province through strong public education.

You are interested in research-based evidence – including the evidence that you generate with your colleagues. You are interested in and curious about learning from the Indigenous cultures and traditions of your province. You are intrigued by the ways in which innovative practices at the micro, mid and macro levels are opening up possibilities of operating in entirely new ways.

As family members and as educators, you have witnessed the curiosity kindergarten learners bring to their early experiences in school. Over time in many schools, this curiosity is diminished and, sadly, is sometimes replaced with apathy or token interest. What you want to hear and see are internally motivated, self-regulated learners who are intellectually, academically and socially engaged with their learning. “I know where I am going with my learning and why it is important.” “I can’t wait to dive into this.” “How can I find out more about ... ?” You no longer want to hear learners ask, “What’s this worth?” “Is it on the test?” or even, “Are we doing anything interesting today?”

You believe that one of your key responsibilities is to help your learners leave more curious about learning than when they arrived in your classroom, your school or your district. You know that for young learners to sustain their curiosity, they must learn from and with adults who share a passion for learning. This belief in the power of curiosity drives your interest in inquiry-based forms of learning for young people, and inquiry-based forms of professional learning for adults. You believe that the formulation of a problem is often as important as the solution. Einstein thought this too, so you are in good company.

Quality and equity are two of your core values. For you, these values are interconnected. You want all

learners to experience the highest possible quality education – not just those who have families who are educationally savvy or who, by the luck of the draw, land in the classroom of an outstanding teacher. You want to help make the education system more equitable through the provision of high quality learning opportunities for *all* young people. This is why you have chosen education as your profession. You know that your efforts matter. You bring a growth and inquiry mindset to all aspects of your work.

Inquiry isn't about the pursuit of the perfect question or the next exciting strategy. 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 currently popular and trendy. Innovation is about recognizing that old approaches are not working for all learners, identifying what the key needs of our current learners are, and then creating new strategies based on knowledge about what *does* work. Inquiry involves design, discipline and a critical focus on evidence that matters. We take the stance that we must constantly ask ourselves “What difference is this making to our learners?” and “How do we know?”

We use the words ‘inquiry design’ purposefully. Inquiry is not a ‘paint by numbers’ set of strategies. It is through the artistry and creativity of teams of educators that inquiry tools come to life. In this handbook you will be provided with a range of examples of how inquiry-minded educators are applying their own design sense to discover and implement strategies for change.

The inquiry approaches described in upcoming chapters have been tested in every type of BC school — inner city, rural, big, small, public, independent, band, on-line, blended, alternative and community-based. Many of the educators in these schools have spent over a decade pursuing networked inquiries connected with changing the life chances of young people. You will read about the inquiry experiences of educators with challenges similar to the ones you face. We hope you will also be interested in and intrigued by the experiences of educators in very different circumstances from yours. The diversity in our system is one of our strengths.

Just as we want our young people to leave the school system every bit as curious as when they arrived in kindergarten, we need educators like you who will sustain your professional curiosity throughout your career — indeed throughout your lifetime. We hope that your sense of inquiry is both a source of professional pride and a motivator for continuous learning.

Recently we heard two Prince Rupert teachers characterize their progress towards a deeper inquiry orientation as a game of snakes and ladders in which some of the ladders were more like spirals than direct routes. Inquiry is rarely, if ever, straightforward. You can expect your inquiry work to be challenging, stimulating, frustrating, engaging and productive.

We believe that BC educators have the capacity to pursue — and accomplish — a challenging goal. We want BC to be the first jurisdiction in the world where *every* learner is able to *walk the stage with dignity, purpose and options*. We are not naïve; we know that this is an ambitious goal. We firmly believe that the collective pursuit of a HARD goal — Heartfelt, Animated, Required and Difficult — is what is called for if we are to realize high equity and high quality for all learners. We believe that an inquiry orientation and a coherent set of inquiry tools adopted broadly across the province will help us get much closer to achieving this goal.

This handbook is organized to provide you with specific inquiry tools, research evidence and examples from practice in BC schools. You will read arguments for the importance of considering and combining wise, strong and new approaches to inquiry and learning. You will be introduced to a set of questions that can shift thinking and practice. You will explore the key stages in the spiral of inquiry and you will consider ways to incorporate current knowledge into your designs for professional learning. Ultimately we hope you will feel better equipped to create the kinds of inquiry learning communities required to get the outcomes

for young people that we both want and need.

We have had the privilege of working together on system transformation for a number of years. We have experienced the joy of teamwork and the support that comes from facing challenges with a trusted learning partner. Inquiry is not a solitary pursuit. Meeting the needs of all learners is simply too big a task for any one leader, teacher, school or district to attempt alone.

We hope that you will experience the satisfaction that comes from tackling important work together with your colleagues. We agree with Howard Gardner and his colleagues who 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” (2001, p. 3). We urge you to approach your inquiry challenges with curiosity and with determination — and as part of a team. We sincerely hope you enjoy this work together and that you find this book helpful in your pursuit of equity and quality for young people in our province.



## Chapter One

### **Weaving the Ways: Wise, Strong and New Learning from Indigenous Perspectives**

*What We Can Not See We Cannot Respect  
We have taken so much from your culture,  
I wish you had taken something from ours ...  
— Chief Dan George*

#### **An inquiry mindset**

Curious individuals are unafraid to dream new dreams. Curious leaders believe that there is always more to learn by inquiring into what makes the most difference for their learners – and, as a result, their leadership makes a bigger and more positive impact. Educators with inquiry mindsets allow for a range of outcomes and keep searching for increased understanding and clarity. They avoid the complacency or cynicism that sometimes comes with experience – the ‘been there, done that’ stance of their less curious and less effective colleagues. Every day they try to find out more about how to assist the students they serve.

Simply applying strategies that promise ‘guaranteed’ solutions is not enough for inquiry-minded educators. Ann Lieberman has spent decades studying sustained networks of educators, especially those involved in the National Writing Project in the USA. Her studies suggest two conclusions: first, that an inquiry stance is far different from a solution stance and second, that an inquiry stance is necessary for productive change.

An inquiry stance requires that one ask questions of one’s practice rather than simply looking for answers externally. Rather than relying on generalized solutions, it places contextual evidence and analysis at the center of focused change efforts. We also agree with Marilyn Cochrane Smith and Susan Lytle who believe that inquiry is both a stance and a disposition. As educators make their own discoveries, they become energized by the desire to inquire more deeply and to learn more broadly. An inquiry orientation requires both thinking and doing.

Inquiry demands that educators actively scan their environments, generate questions, try new approaches, observe and collect evidence, synthesize information from a variety of sources, draw conclusions and generate new questions. Teachers and formal leaders who are drawn to inquiry as a professional focus demon-



## Chapter Two

### **Weaving the Ways: Building on Strong Practices**

*A safe environment for the learner and for the teacher is an environment where error is welcomed and fostered.*

– John Hattie

*All students can improve how they manage learning processes and become owners of their own learning. However, this is not an easy process. Reflecting critically on one's own learning is emotionally charged, which is why developing such skills take takes time, especially when students are accustomed to failure.*

– Dylan William

Both of us come from families of teachers and we have been living and breathing education for a long time. We started our careers in an era that has been described as a time of uninformed professionalism. We were keen. We were enthusiastic. We tried just about everything. We knew quite a lot – too bad we didn't know more. Sometimes we each wish we could go back to those early classrooms and apply what we now know.

There are some key differences between the teaching experiences of our family members and our early career selves with educators today. First, we are now developing stronger understandings of Aboriginal worldviews and educational practices from an Indigenous perspective. Second, we have access to strong research-based evidence from an international perspective about what makes a difference to learning and to learners. We are encouraged to see how many BC educators are drawing on these sources of knowledge to strategically and artistically create more powerful learning worlds for young people.

These inquiry-minded educators find the information available from learning sciences research too compelling to ignore.

In this chapter we will highlight just a few important findings:

- the development of a growth mindset
- the role of formative assessment practices
- the power of feedback
- the impact of reciprocal teaching, and
- the importance of teacher-learner relationships in strengthening the outcomes for all learners.



## **Chapter Three**

### **Weaving the Ways: Exploring New Possibilities**

*Innovators meet frustration not with complaints –  
but with a commitment to devise more effective solutions.*

*– Charles Leadbetter*

*You will have to experiment and try things out  
for yourself and you will not be sure of what you are doing.  
That's all right – you are feeling your way into the thing.*

*– Emily Carr*

*Everything is Connected.*

*– Cynthia Nicol and Joanne Yovanovich*

Weaving what we are learning from Indigenous wisdom with strong, evidence-informed practices will go a long way towards helping us create the kind of system where many more learners can experience success. And yet, this may still not be enough to meet the needs of ALL learners. The 21<sup>st</sup> Century provides new opportunities and new challenges for educators, for learners and for their families. Educators around the world are experimenting with new understandings of time, space, relationships, curriculum and community to create deeply engaging learning environments. New technology tools often enhance these efforts. In many cases, the natural world is providing both the place and the space for new forms of learning.

In this section, we will describe some thought-provoking work that is taking place internationally with respect to innovative learning environments. We will briefly summarize the key learning principles that inform this work, principles which act as a helpful framework for new initiatives. We will provide a short description of imaginative education and the imaginative strategies that are influencing practice worldwide. We will summarize some of the key ideas in self-regulated learning that are gaining attention across BC. And, we'll provide some examples of the ways in which educators from BC and beyond are creating new experiences for learners through new approaches to learning through inquiry, innovation, imagination and ingenuity.





## Chapter Four

### Four Key Questions and Why They Matter

*Learn from yesterday, live for today, hope for tomorrow.*

*The important thing is not to stop questioning.*

*– Albert Einstein*

We invite you to start your investigation into inquiry with four key questions. Posing these questions as a series of micro-inquiries can be a productive way for teaching teams to experience an inquiry mindset in action. Hundreds of BC educators have told us that they have made transformative shifts in their learning and teaching repertoires after exploring the experiences of their learners through posing and then reflecting on the learners' responses to these questions.

We believe that educators need to think of themselves as designers of learning. As designers of professional learning, asking these questions and then changing practices based on what is learned is the equivalent of rapid prototyping – moving quickly to try something new to see if it works. We are convinced that we need to move rapidly to the place where all learners feel connected and all learners are able to self-regulate their own learning.

In introducing these questions, we want to acknowledge the significant research and practice contributions of several scholars. Kimberley Schonert-Reichl's research on social and emotional factors in learning and her practical and theoretical work on the Middle Years Development Instrument have provided BC educators with invaluable insights. Her work is critically important; we really appreciate her spirit of generosity in reaching out so consistently to practitioners. The first of the four key questions comes from her research.

Helen Timperley's studies of literacy learning, professional learning, the role of feedback and the power of learning conversations have influenced the work of BC educators in inquiry and innovation networks over the past decade. Her research findings on the forms of teacher professional learning that make a difference to student learning are informing professional learning practices around the world. Questions two, three and four come from her work.

Helen always acknowledges the positive impact that John Hattie, her research colleague, has had on her thinking. The paper they co-authored on the importance of thoughtful feedback was groundbreaking and is still widely used by researchers and practitioners around the world. Hattie's latest book about the teaching practices that have the greatest impact on learners helps to bring to life in classrooms the findings from educational research. His summaries are being used extensively in many parts of the world to increase learning power for young people.



## Chapter Five

### The Spiral of Inquiry in Action

*The human mind always makes progress – but it is a progress in spirals.*  
– Madame Gertrude de Stael

What's going on for our learners?  
How do we know?  
How does this matter?

### Inquiry models

Over the last dozen years we have actively examined a variety of inquiry models designed to create equity and quality outcomes for all learners. We have studied district-wide approaches within BC, as well as the models used by our teacher federation inquiry associates and university colleagues involved with the annual Investigating Our Practices seminar. We have learned from the challenges and successes of the Galileo Network in Alberta and equity and inquiry-based initiatives in the San Francisco Bay Area and in New York. We have had opportunities to view and to learn from ongoing networks of inquiry in Ontario, the United Kingdom, Wales, Australia, Switzerland, the Scandinavian countries and New Zealand. We have also explored the ideas in many action research articles and books from the US, the UK, Canada and publications from the researchers at the University of Auckland.

We have learned a great deal over the last decade about 'curiosity in the wild' through using inquiry models within a wide variety of provincial networks. Some of these networks, all of which are led by teams of formal and informal leaders, have been focused on enhancing results for Aboriginal learners. Others have had a focus on creating innovative learning environments. Many have been working on developing early and later reading and writing success by implementing thoughtful assessment and learning practices.

Many school inquiry teams have also had a focus on developing learners to be socially responsible citizens. The thousands of BC educators involved in the inquiry network have been working in a whole range of schools in both urban and rural settings. In some cases we have been able to study the impact of ongoing inquiry work in a single school over a ten-year period. In other cases we have learned from observing district-wide approaches to inquiry. The learning we have gained has been extremely valuable and has fuelled our persistent curiosity about transformative practices.

More recently at the international level we have been intrigued by the imaginative ways that Paul Clarke and his Commonwealth network of Pop-Up-Farm schools have found to create passionate interest in prac-



## Chapter Six

### Professional Inquiry for Deeper Learning

*The growth of understanding follows an ascending spiral rather than a straight line.*  
— Joanna Field

*The job is to ask questions – it always was – and to ask them as inexorably as I can.  
And to face the absence of precise answers with a certain humility.*  
— Arthur Miller

*Regard every defeat as an opportunity.*  
— Jean Monnet

*To serve learners today we need adaptive experts working in schools  
with high adaptive capacity. Teachers can develop adaptive expertise  
if they work in schools that foster and support their learning.*  
— Helen Timperley

### Inquiry action for deeper learning

As you dive into the ‘new professional learning’ phase of the spiral of inquiry, there are recent findings from the learning sciences literature and from studies on teacher learning that can offer useful guidance. In this final chapter you will consider ways to use these findings to better inform your inquiry action plans. We will also provide you with a set of questions to consider as you design professional learning processes for your school or network of schools.

The purpose of using an ongoing spiral of inquiry approach is to create quality and equity for all learners. This involves a focus on deeper forms of learning and the development of adaptive expertise for learners of all ages.

What exactly does it mean to engage in deeper learning? This definition provided recently by James Pellegrino and his colleagues is helpful:

Deeper learning is the process through which an individual becomes capable of taking what is learned in one situation and applying it to new situations (transfer). Through deeper learning (which often involves shared learning and interactions with others in a community) the individual develops expertise in a particular domain of knowledge and/or performance. The product of deeper learning is transferable knowledge, including content knowledge in a domain and knowledge of how, why and when to apply this knowledge to answer questions and solve problems. (2012, p. 5)