Directorate for Education

Centre for Educational Research and Innovation (CERI), OECD

Innovative Learning Environments (ILE)

INVENTORY CASE STUDY

Community of Learners Network

Canada (British Columbia)

This is a 'mini-network' within the Networks of inquiry and innovation *in BC. It involves intensive collaboration on applying inquiry methods. Despite operating in the traditional structures, the teaching/learning interface is markedly different from traditional modes of schooling. The curriculum and schedule are built around large-scale inquiries that blur traditional school subjects and schedules. Formative assessment and metacognition are integral to the learning, as is collaboration through the 'Circle Discussion' approach which is also a core element: circle discussions are referred to as Literature circles, Information Circles and Numeracy Circles, and generally comprise 4-8 students. Aboriginal place and culture are fundamental and Aboriginal and non-Aboriginal students are taught to respect traditional values. Community members with expertise are regularly invited into classrooms, and community and local resources viewed as an integral part of the learning environment. From beginning with three teachers, now there are eight learning environments that fully integrate the core approaches.*

Community of Learners Network

A. The *aims of the ILE and the nature and history of the innovation*, including relevant details on socio-cultural context and population served, broad approach taken, origins and development, age of learners, and situation within the broader educational system.

We are all learners; we are all teachers: Inquiry within a Community of

Learners

Origins and development

A steadily expanding group of educators is developing a series of innovative learning environments within and between the traditional structures of the public education system in a small community on Vancouver Island, British Columbia, Canada. The mantra 'We are all learners; we are all teachers' encompasses the broader aims of this group of educators: to create learning environments for themselves and their students that are steeped in inquiry mindsets and a value system that honours the self while recognizing the innate need of all of us to belong in a community.

Much of this work was sparked by involvement in a provincial organization that promotes collaborative inquiry called the Network of Performance Based Schools (now Networks of Inquiry and Innovation – www. noii.ca). The 'Network' instigated and facilitated a process through which teams of educators would inquire into an aspect of their practice and showcase their results to other educators within the organization. After engaging in this inquiry process, three teachers in Nanaimo – Mary-Lynn Epps, Lynn Brown and Kerry Armstrong - reflected on the personal impact of adopting an inquiry mindset within community and decided to adapt the collaborative inquiry process to the work they do in their classrooms. Over the past four years, these educators have developed a sophisticated set of practices that have had a substantial impact on student engagement, community involvement and student achievement in this region and beyond.

The inquiry work that was begun through their involvement in the Network has deepened and grown as the teachers continually inquire into their own practices and the achievement and engagement of their students, while seeking out and creating leadership opportunities that have enabled them to influence the practice of teaching colleagues within their own schools, schools in their community, and across the Province. Each in their own way, these teachers have established a role for themselves as mentors and coaches for their teaching colleagues by opening the doors of their classrooms for visiting colleagues and student teachers, by writing and reflecting on their ongoing learning, by facilitating professional development opportunities throughout the region, and by presenting at local, national and international conferences.

As a teacher educator, Dr. Paige Fisher has become a member of this innovative team, and has supported the expansion of the work by connecting the K-12 classroom practices to her university classrooms and by collaborating with them on various conference presentations and writing projects. Through the educational leadership of this original group, the approaches used by these teachers are expanding to other classrooms in various ways. At present, there are approximately 15 classrooms in the region who are fully integrating the core approaches, as well as several who are in developmental or partial stages of adopting them. These classrooms range from Kindergarten (age 5) to Grade 12 (age 18) in the public school system as well as cohorts within a teacher education program at the local university, Vancouver Island University.

Aims

The core learning aims are to develop an inquiry-embedded and purposeful orientation towards learning in an environment that encourages the development of a strong 'sense of self' for all learners within a value system that honours the need to belong in community.

Students are supported to develop a strong sense of their individual learning strengths and needs and are able to advocate for themselves in varied contexts. At the same time, the Community of Learners concept encompasses many aspects of social and interpersonal development as educators seek to create a deep sense of attachment to the learning community. This occurs through a focus on belonging, support, interdependence and respect for diversity. Students are immersed in an environment that offers a balance of structure and autonomy so that they experience a combination of safety and accountability as they take risks in their own learning.

Broad approach taken

Each educator involves his/her learners in a visioning process called the Community of Learners. Through this process, the learners articulate the needs of the learning community, and the features that will need to be present for the learning community to function smoothly to meet the needs of all learners. The educators design broad inquiry questions that encompass a range of learning intentions and present them to the students. Background knowledge of relevant topics is developed through instructional sequences that include direct instruction using varied media and a series of information-gathering collaborative processes such as research, 'Jigsaw', Literature Circles, Information Circles, field experiences and guest presentations. A prominent feature of this phase of the process is a series of 'circle meetings' where student learning is co-constructed and facilitated in small groups. Reflective writing and representations of evolving conceptual understanding using mind maps follow the small group meetings.

Students are then coached to articulate their own inquiry questions that fit within the larger inquiry question. As they pursue their individual inquiries, they often facilitate learning experiences for their classmates. Ongoing progress is supported through multi-level feedback cycles that rely on self, peer and teacher support. The inquiry process is followed by a capstone celebration of learning called a Learning Showcase where families, fellow students and community members are invited to share in the learning experiences.

Socio-cultural context/population served

The classrooms in question are predominantly under the jurisdiction of the Nanaimo/Ladysmith School District, funded by the British Columbia Ministry of Education. These classrooms are within public schools that function, for the most part, in very similar ways to schools across Canada, with a traditional structure of separated classrooms for age-level grades from Kindergarten to Grade 12. In grades K-7, one teacher is responsible for delivering most curricular requirements, with some specialist support in learning assistance, music and Aboriginal education. In grades 8-12 school subjects are divided by traditional disciplinary boundaries such as English, Sciences, Social Studies and Arts with different teachers specializing in each subject area.

The region relies on natural resources and tourism as its main sources of revenue, and the average household income is slightly below the provincial average. There are several Aboriginal communities that encompass and surround the community and their cultural presence is becoming increasingly recognized

within the public school system. Students with Aboriginal heritage comprise approximately 15% of the school population. The school district has entered into a series of Aboriginal Education Enhancement Agreements with local communities with the aim of enhancing educational outcomes for Aboriginal students and of increasing awareness among non-Aboriginal students and teachers of local culture and history. As the school district has stated, "strengthening trust between the District and the Aboriginal nations represented in our schools and communities is a system priority" (Hutchinson, 2012).

Situation within broader educational system

The classrooms described here are located within the traditional structures of the school system. Classroom teachers are maneuvering within and between the walls of these structures to create innovative approaches to teaching and learning that can fit within the wider system. For example, in Elementary (K-7) classrooms where students are placed in cohorts based on age, teachers are collaborating across grades to provide multi-age experiences for their students. They have shifted the physical structures and the learning structures to enhance collaboration between students, and they have shifted the power structures to include students as key resources in the learning of their peers and their teachers. Additionally, in the Secondary schools and the University where age cohorts are also divided by disciplinary boundaries, educators are seeking ways to collaborate across disciplines within and between the confines of walls, schedules and traditions.

Students are not 'selected' to enter into the classrooms that comprise these innovative learning environments. Rather, the educators work with the group of students who have been enrolled in their classrooms, and seek to implement these practices therein.

The work in K-7 classrooms (age 5-13) is very multidisciplinary, and seeks to incorporate as many 'subject areas' as possible within large inquiry-based learning sequences. For example, the Healthy Living inquiry that the teachers have created integrates Language Arts, Social Studies, Mathematics, Physical Activity, Visual Art, Dance, Drama, Science, Healthy Relationships and Social Responsibility under broad inquiry questions.

The teachers who are creating these learning environments in Secondary classrooms (14-18yr olds) tend to be restricted by a focus on a particular 'discipline' or 'subject area', although the learning that results from the student inquiries moves well beyond disciplinary boundaries. For example,this approach is being very successfully employed in English, Visual Art, Science, Social Studies and Photography courses at the Secondary level. The student inquiries are represented through writing, art and photography, but engage with broad issues such as social injustice, globalization, media influences and societal challenges such as poverty, terrorism and the environment.

B. The *structured patterns and characteristics of the learning environment*: the way that learning is organised and structured, including over time. These structures include such matters as how learners are grouped, use of teachers/facilitators, particular combinations of knowledge and content, pedagogies and sequencing of learning, assessments; and the use made of facilities and space, technologies, and community resources.

Structured Patterns and Characteristics of the Learning Environment:

Community of Learners

The starting place for each of these learning environments is the establishment of a shared value system called the Community of Learners. This concept and process has been developed by the teachers over time, and has come to be seen as a foundation of their work with students and colleagues. The basic premise is that a sense of a Community of Learners is essential to the establishment of a learning environment that is characterized by emotional safety and interdependence. Each teacher facilitates a process by which students articulate their vision of a Community of Learners in the classroom, where productivity is enhanced by the recognition that each member of the community is responsible for the learning of themselves and others. Healthy relationships within the learning environment form the basis of a positively interdependent community. As Mary-Lynn Epps reflects

> *It has enabled us to create an understanding and expectation of what is required to work together toward a common goal of successful learning experiences. When we create a Community of Learners climate that is infused with an inquiry mindset we transform the classroom into an innovative learning environment where inquiry cycles spiral throughout the year. Within a Community of learners Climate, students develop self-regulation skills and support one another throughout the process thus developing a common belief that they are all learners and all teachers. This belief is manifested through multiple peer coaching experiences to support one another's learning.*
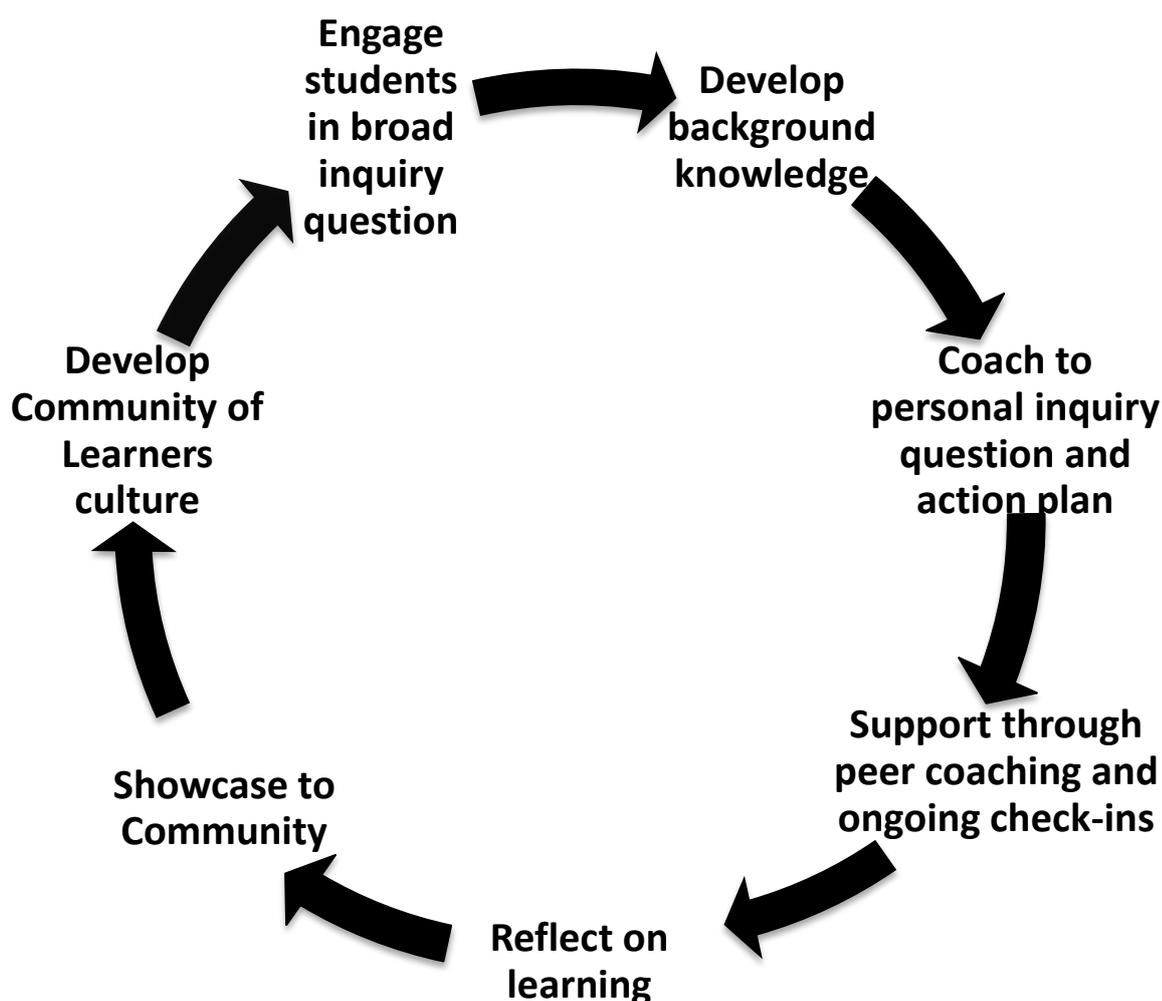
Community of Learners foundational values create a climate characterized with safety, support and trust so that learners can take risks in the exploration and expression of their learning.
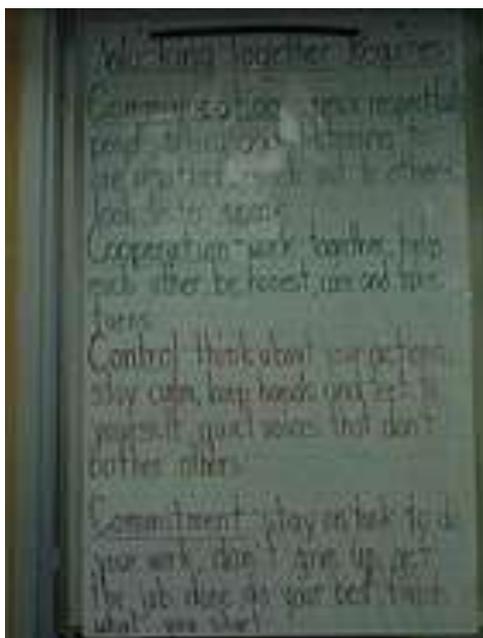
Working Together Requires: Students develop a vision of their Community of Learners and group ideas around the '4 C's' – Communication, Cooperation, Control & Commitment

Inquiry mindsets

Inquiry-based learning is used to facilitate inquiry mindsets among students and teachers through the completion of meaningful, relevant inquiry projects. The teachers view themselves as teacher- researchers who are continually inquiring into their practices, and the impact of their practices on valued student outcomes. Students in these classrooms are also encouraged to approach their learning with an inquiry mindset. The curriculum and schedule are built around large-scale inquiry cycles that blur boundaries between traditional subject area disciplines and traditional schedules. Each inquiry cycle is framed by an over-arching inquiry question that is designed by the classroom teachers in collaboration with each other. The questions are designed to be meaningful, relevant, rigorous and transformative. They are derived from various curricula documents, and accompanied by a clear set of learning intentions for the unit of study. Students are then supported in developing their own inquiry questions that enable them to delve deeply into particular areas of interest that nest within the larger inquiry question.

Engage students in broad inquiry question

Develop background knowledge

Develop Community of Learners culture

Coach to personal inquiry question and action plan

Showcase to Community

Support through peer coaching and ongoing check-ins

Reflect on learning

Classroom Inquiry Cycle

(adapted from Halbert & Kaser)

Inquiry cycles range from 6-16 weeks in duration. In many of the Secondary classrooms, one inquiry cycle frames a complete semestered course (approx. 18 weeks), while in others, two or three inquiry cycles may be embedded within a course. General agreement is that it would be very difficult to engage in a full inquiry cycle in less than 6 weeks. Duration is determined by the goals and orientation of the classroom teacher.

In many Elementary classrooms, the school year is built around three inquiry cycles that divide the school year into three parts. When an inquiry cycle is this large, it is designed to frame the learning across all curricular areas. For example, one Elementary inquiry cycle was developed on the concept of Healthy Living. The over-arching inquiry question was:

Healthy Living is the key to a balanced life. What will you do to transform your thoughts, actions and beliefs about healthy living and lead others to do the same?

Once the broad inquiry question was established, students were exposed to a wide range of educational experiences in the subject areas of Science, Language Arts, Mathematics, Physical Education and Fine Arts – all of which connected back to the original inquiry question. Students were then supported in the development of personal inquiry projects that extended and enhanced their understanding of an aspect of healthy living, either individually, in pairs, or in small groups. Students engaged in action projects such as monitoring their energy levels as they ate certain foods and participated in sporting activities, exploring the connections between video games and activity levels and organizing noon-hour fitness activities for their peers as they each pursued an area of interest.

The broad inquiry questions are thoughtfully and collaboratively developed to offer enough scope for a rich array of learning experiences and wide range of personal inquiry projects. The teachers involved have created a set of criteria for these questions as follows:

Teacher-developed criteria for creating classroom inquiry questions:

- open ended to allow learners flexibility of how they want to engage, process and represent their learning
- broad enough to include multiple disciplines and encourage cross curricular planning and perspectives
- created with the purpose of transforming thoughts, beliefs and/or actions
- supports ownership for learning through an opportunity to further create a personalized inquiry question
- develops metacognition through the engagement of learning conversations
- choose inquiry topics that are both relevant and meaningful to the learner to support engagement and further connections

Sample broad inquiry questions:

- Water has the power to transform everything. What will you do to ensure the well for the future and empower others to do the same?

- How does photography transform your thoughts, actions and beliefs towards yourself and your world around you?

- How can I create an original piece of art that reflects and transforms myself and others with regards to opinions, beliefs and emotions towards our world?

- Will learning about injustices against humans, specifically Aboriginal People change your thoughts, beliefs and actions toward respecting their cultural traditions past and present ?

- How will active participation using the 4C's as a respectful code of conduct build healthy relationships so that social injustices towards people of a different cultural heritage will vanish in our school community of learners?

- The development of healthy relationships is an essential component of building school connectedness. What can we discover from the learning partnerships between students across the

grades and in different schools that will further support engagement in healthy relationships?

- Healthy living is important for everyone! How will learning about the importance of physical activity and designing a physical activity circuit to peer coach grade 4/5's contribute to changing thoughts, beliefs and actions towards being physically active and encouraging others to do the same?

Some of the teachers have woven the concept of Community of Learners into their broad inquiry questions as a way of further weaving together the concepts of inquiry and community. This thinking has lead them to create inquiry questions such as:

- What can we learn from the Aboriginal people past and present that can support us in developing a community of learners where we are all successful?

- How can we develop and continue to evolve as a Community of Learners so we can all succeed?

- How can we further develop a Community of Healthy Living learners where we can transform our lives and others into living a more balanced lifestyle?

- How can we further transform ourselves as a Community of Healthy iving Learners that can make a difference in the world around us?

Once the students have developed a foundation of background knowledge in support of the broad inquiry question, they are supported and coached towards the development of their personal inquiry. Students can work individually, or, if various student interests intersect, they may choose collaborative inquiry. Mary-Lynn writes about the role of broad inquiry questions and personal inquiries in this reflection:

The final factor for inquiry encourages ownership for learning through the development of personalized inquiry questions. It has been part of our practice to encourage learners to create aligning inquiry questions that build upon the larger classroom inquiry question.

When we create a broad inquiry question to springboard the inquiry cycle we use it as an opportunity to strengthen students' background knowledge so they can create more personalized inquiry questions that tap into their strengths and interests.

When we meet with our students we ask what they want to explore or what has sparked their interest in what we have investigated thus far. Sometimes they come ready with an idea while others need more coaching to articulate what they want to investigate. For example we sometimes will ask what they see as strengths in their learning. Then we try to find ways to connect their strengths and interests to design a personalized inquiry question. To further strengthen the question so it results in transformation we ask, "How is the question important in supporting your transformation or changing your thoughts, beliefs and actions?" Their answer will lead to a kind of thesis question.

Many students have taken on personalized inquiry questions that have moved their learning beyond themselves to the classroom community and the broader local and global community. Some examples include a pair of students who wrote a letter that was published in a local newspaper on how to conserve water usage. Another student wrote a poem on her passion for running that was published in the Canadian Runner magazine. A group of three students created recipes for smoothies that

encouraged others to use vegetables and fruit. As a result of their demonstration and experiments, other classmates committed to choosing healthier snacks throughout the day.

This practice has worked well because it has enabled the learner to further develop background knowledge previously taught through a variety of orchestrated learning experiences. The background learning experiences are part of the scaffolding process designed to support learners in asking deeper more involved inquiry questions that tap into their individualized strengths and interests as learners. Through coaching opportunities learners design their question, plan their method to answer the question, organize their data and analyze it to formulate a conclusion. An explanation and justification of how they have transformed as learners pertaining to the inquiry question is also included. This process of coaching individuals or small groups has given learners a sense of commitment for learning that empowers them to engage and move forward as learners. The personalized inquiry questions also support the process of becoming more self-regulated, lifelong learners as they continue to embed the processes and tools in their metacognition.

For a glimpse of the impact of personal inquiry on students' learning processes, please view the following short videos.

Inquiry Learning with Branden and Ryan   https://vimeo.com/39681825
Inquiry Learning - a Parent's Perspective   https://vimeo.com/39681826

Inquiry Learning with Emily   https://vimeo.com/39682506
Inquiry Learning with Dalton, Fraser & Aden   https://vimeo.com/39681827

Assessment processes

In these learning environments, formative assessment processes are embedded and inseparable from the teaching and the learning. By drawing on the seminal work of Black & Wiliam (1998), the British Columbia Ministry of Education and the Network of Performance Based Schools have articulated a set of key assessment strategies that they have been promoting through publications and professional development activities across British Columbia. They have come to be referred to as the *Six Big Assessment for Learning Strategies*. These strategies are: learning intentions, criteria, descriptive feedback, self and peer assessment, questions and ownership.

In addition, the Ministry has facilitated the creation of a set of Performance Standards, which are learning progressions designed to articulate widely held expectations in the areas of Writing, Reading, Numeracy, Information Technology, Social Responsibility and Healthy Living for K-12 students. The Performance Standards and the AFL strategies are woven throughout the learning activity in these learning environments.

The British Columbia Performance Standards offer the teachers benchmarks by which they can determine the progress of their students in terms of widely held expectations of achievement and skill development. They are used diagnostically, in planning, formatively and summatively, as a guide to student progress. The language within the Performance Standards is also used to help teachers and students develop criteria to guide their work. The criteria are then used to offer multiple opportunities for descriptive feedback through self and peer assessment activities.

Much of the formative assessment (especially descriptive feedback) occurs during small group conversations, where groups of students meet with the teacher to share their developing understanding of the topics under study. The teacher facilitates the conversation and offers feedback through varied questioning techniques, as students build their understanding together. In addition, students meet with peers and multi-aged peer coaches to regularly offer each other feedback, which is based on criteria that have been developed collaboratively.

The feedback is made concrete through group processes such as A-P-E (Advisor, Presenter, Encourager discussions) and feedback sheets such as 'Two Stars and a Step' or 'Stars and Next Steps' frameworks which students take away and apply to subsequent learning tasks. Most feedback occurs during formative stages of learning projects so that it is applied to learning in progress, not to summative products.

The explicit use of learning intentions is evident in the extent to which students within these environments are able to articulate the purpose of their learning activities. The key goal of learning intentions is to help create a purposeful orientation to learning environment, which is evident in students' ability to articulate the learning that is derived from their activities.

When Mary-Lynn was asked to articulate the extent to which students were able to monitor their own learning progress as a result of formative assessment, she said:

This is especially evident when we continually ask: What is working with your learning? What will you rethink? and What will you do next? As individuals answer these questions they are lead to set goals and define 'next steps' in their learning. It encourages application of understanding and awareness of what supports their learning. They are able to personalize the learning experience to decide how they will proceed with future learning endeavours. In this way, learners become much more engaged and committed to the learning experience. As a teacher/learning coach I have observed how these questions can really empower learners.

These questions have also helped me to continually adjust my teaching to respond to the needs of my students. The answers help me to frame my own next steps in designing learning experiences to meet the needs of the students.

When asked, 'How do you get students to a place where they can articulate their next steps and the tools they will need to get them there?' she responded:

We always begin by asking students to frame a response to the question 'What are the tools and processes that support your learning?' At the beginning, students are very uncertain about their answers to these questions, likely because they haven't paid much attention to how they learn. As we move through a variety of educational experiences, we draw attention to the ways in which they can determine next steps. We coach students to conference with their peers, to go back to the original inquiry question, to refer to criteria and performance standards, to seek out exemplars.

We continue to use similar tools and processes to build understanding over time. This predictability in the learning cycle helps students become masters of the learning tools and processes, thereby, becoming self-regulatory learners that can manage their learning more independently. Once they are more independent we can use our time more effectively as a learning coach to guide their thinking by offering constructive feedback, asking probing questions and providing rich resources. We can also begin to network the learning energy by

encouraging peer coaching partnerships. As a learning coach we can more easily address the needs of the more diverse learners in the classroom.

As inquiry cycles are completed, teachers move to a mode of summative assessment through interviews and individual conferences they call 'elbow to elbow' conferences. The question that they are trying to answer through summative assessment are 'What has been learned thus far? and 'What does this student understand about his/her learning at this point in time?' The Network has encouraged educators to use questions such as 'What are you learning about? What has supported your learning? and What will you take to your next learning experience?' as they interview students. Teachers and parents use the responses to these questions to assist them in supporting learner progress.

When teachers are required to create formal reports on student learning for parents and administrators (in British Columbia, this means three times per school year at present) they use the Performance Standards as a guide to evaluation. The widely held expectations offer teachers benchmarks that allow them to make judgements about student learning that can be translated into letter grades and symbolic representations for report cards. It should be noted here that the teachers across this series of learning environments are united in their stance that letter grades and symbolic representations on report cards do little to support student learning. Indeed, many feel that these institutional processes interfere with the learning work that students are engaged in, yet the current policy environment makes such forms of reporting mandatory.

Collaborative learning structures

Flowing out of the Community of Learners value system, there is an implicit understanding in this learning environment that learning is a socially constructed process. Collaborative learning is used to build in emotional safety and accountability for the learning. There is extensive use of peer coaching/partner talk, multi-aged peer coaching, jigsaw structures and collaborative inquiry projects. The 'Jigsaw' and the 'Circle Discussion' are core elements of the inquiry work.

Jigsaw is a process whereby a topic focus is divided into sub-categories, and students work in Expert Groups and Home Groups to develop their background knowledge. In Expert Groups, teams of students (6-8) pore over resources to gather information about the topic in question. For example, during Healthy Living inquiry, students will be divided into groups around Healthy Relationships, Physical Engagement, Nutrition and Body Systems. The expert groups work together to gather information and take notes from text resources, websites, films, photographs, etc. and prepare themselves to share their learning with peers at a Circle meeting. They are continually reminded to support each other in their learning so that each Expert is prepared for a meeting.

Circle discussions are referred to as Literature Circles, Information Circles and Numeracy Circles, and generally comprise 4-8 students. Students from the various Expert groups gather together to share the information they've acquired and a teacher facilitates the meeting. The classroom teachers use this discussion time to facilitate sharing of information, to prompt in-depth thinking, to offer feedback, and to highlight key elements of the topic under discussion. Through this process, each student meets with the teacher at least once a week. Much of the time between meetings is spent preparing for the next meeting and synthesizing learning from the last meeting.

Support for student learning often occurs between pairs of students as they engage in peer feedback exercises. The teachers have created structures such as A-P-E (Adviser, Presenter, Encourager) so that students can meet together, offer each other feedback, and take the feedback to their next learning activity.

Peer coaching

A central concept in the learning work in these spaces is the notion that learners need to be put to work as resources for each other. As a result, various forms of peer coaching have emerged. As stated earlier, peers play a vital role in offering feedback for each other in formative assessment situations. In addition, various versions of multi-age coaching have offered students multiple opportunities to support the learning of different cohorts of students. Older and younger students are often gathered together to teach each other and learn from each other – even beyond the bounds of their own schools. This has proven to be a significant factor in building the confidence of older 'vulnerable' students, who benefit immensely from opportunities to be viewed as knowledgeable and capable by their younger peers.

When we asked a group of students to reflect on the experience of peer coaching, they had this to say:

"...I realize that working with younger kids makes me a leader because I'm older and have more experience."

"My behaviour is better following the 4C's and I work harder and stay on task. To be a good peer coach I have to work hard."

"I felt successful because I got to teach little kids to be healthy."
The teachers have noted these trends - Peer coaching has increased maturity and self-esteem in all learners. It has led the students to self-identify leaders and learners. Vulnerable learners embrace their role as peer coaches to younger students.

> Peer to peer coaching: 14 yr old students share cultural teachings with 9 yr old students.

These coaching relationships are not restricted to the notion of older students teaching younger ones. Every student is considered to be a teacher and a learner –each with a significant role to play, whether the learners younger, the same age or older.

Teachers as learning coaches
The teachers in these environments have come to view themselves as learning coaches – their role has moved from the traditional 'Sage on the Stage' to 'Guide on the Side' in powerful ways. As teachers meet with students in 'elbow to elbow' conferences, they seek connections between the broad inquiry question and the students' personal interests, then help the students to develop a plan of action. Coaching support continues as teachers continually check in with students in support of their plans.

For example, in one classroom, the broad inquiry question was connecting Aboriginal cultural values with the notion of Community of Learners. A 9-year-old boy in the class, Ryan, had a keen interest in astronomy. Through a series of elbow-to-elbow conferences, he and his teacher came up with a plan for him to study the ways in which the Inuit people depended upon the stars as navigational tools as they hunted and traveled in the vast expanses of the North. Mary-Lynn reflects on this part of the process:

> *Following the design of a question we move toward creating a plan to support them answering the personalized inquiry question. Sometimes we have to introduce cognitive tools that will help then organize their thinking. Additionally, a time management plan is often necessary so students stick to a schedule and distribute the workload if they are involved in a partnership inquiry with other students. Later we design opportunities for assessment feedback from their peers, themselves or a learning coach. These opportunities give learners constructive feedback to move forward and meet deadlines for our learning showcase. Finally they examine their overall learning journey and determine what has worked for their learning, what has supported their learning and follow with what they will take to their next experience. The infectious nature of learning builds as both the classroom inquiry question and the personal inquiry question connect and culminate as a showcase of learning.*

In these situations, the teachers often comment on the extent to which they are the learners in the relationship. They are truly embodying the 'We are all teachers; we are all learners' mindset as exemplified by the following comment made by Jean. Jean is one of the teachers who has recently adopted this set of approaches through the coaching and mentoring work of the team.

> *I find myself so much less afraid of the need to 'know' everything now. If a student comes to me with a question, I find myself answering, "Why don't we try and find out?" and entering into the learning with the student.*
> *There is such a change from being at the front of the class and apart from the students as opposed to being side by side and learning with them. You create a bond with the students and it gives them an opportunity to share their knowledge, background knowledge and creative processes with you on a more level field because you are working side by side with them. If I sit down and investigate art techniques with a student, it creates that relationship, that community of learners. We both get a good feeling from being able to share our knowledge.*

Showcase

> **Student showcase:**
> Lena displays all the results of her inquiry work for parents, fellow students, and community members to view. Shown here, her Mind Map, written responses to Literature Circles, a Character Container and her Inquiry project: How can plants help us to think about ourselves as a community of learners?

The Showcase is a celebration of learning that completes each inquiry cycle, and has come to be seen as an essential element of the process. When a learning Showcase is used as a required element of the completion of the inquiry cycle, it provides an opportunity for a powerful culminating event for the inquiry. It offers the students an opportunity to engage in a meaningful assessment as learning/metacognitive process as they prepare to share their learning with authentic audiences. Classmates, school administrators, families and community members are all invited to view the products that the students have created, and to discuss their learning with them.

In preparation for the Showcase, the students review all of the work they have completed during a particular inquiry cycle and select items that will help others to understand their learning journey. As guests arrive, they are encouraged to ask students key questions, such as 'What are you learning?' , 'What has supported your learning?' and 'What will you take to your next learning experience?'

As students respond to these questions, they are able to think through, and articulate, many facets of the power of understanding and owning their learning. As Mary-Lynn says:

> *Culminating the inquiry into a learning showcase provides the confirmation and celebration of everyone's accomplishments and strengthens the belief in a community of learners' foundation. Each time we have held a learning celebration showcase we feel both proud and amazed by what our students can accomplish.*

Use of technologies

Implicit in the learning environment is a recognition that learning happens through various means and evidence of learning can be represented in myriad ways.The notion of Universal Design for Learning is an important facet of this work. Learning opportunities are facilitated through traditional 'texts' as well as internet sources, literature, physical and dramatic engagement with ideas, the Arts, field study and experimentation. The problem-based learning that culminates each Inquiry Unit is represented through representations such as mind maps, models, music, digital representation, oral presentations and dance.

The teachers firmly believe that technological tools and adaptive technologies have a role to play in supporting their students, yet these classrooms are not overly rich in technological equipment. Some computer access is available (generally 2-3 computers in a classroom, and a computer lab in the school) and students and teachers attempt to use their computers as tools for gathering information and sharing learning. For example, several of the classes are beginning to focus on the ePortfolio as an effective tool for gathering together student representations of learning and offering a vehicle for reflecting on the meaning of learning activities. Many students use computers to enhance their writing skills, and some use speech-to-text or text-to-speech programs to support student literacy.

Classroom blogs are beginning to emerge, and classes are using technology such as Skype to connect with people at a distance. For example, two 9-year-olds interviewed the author of a novel they had been studying, while another one used Skype to interview a dancer in the National Ballet as part of her Healthy Living inquiry. As more technology becomes available, it is certain that the students will be creatively accessing these tools.

Community Resources and Community Involvement –

Sense of place: There is a profound recognition of a 'sense of place' and the notion of connection to 'traditional territory' in these learning environments. As a Community of Learners is developed, the children are taught to look to the Aboriginal cultures that are embedded in, and surround, the community for a sense of communal values. Through literature, oral tradition, and the presence of Elders and young Aboriginal leaders, Aboriginal and non-Aboriginal children are taught to respect traditional values. In addition, community members with expert knowledge in a variety of disciplines are invited into the classroom to enhance the learning. Groups of children go out into the community to learn there as well - community centres, local forests, historical sites and local educational facilities such as museums are considered to be essential to enriching the learning environment.

Families are involved in various ways. They are invited to celebrate student learning at 'Learning Showcases' at periodical intervals throughout the school year. These events are very well-attended, and families are viewed as partners in the learning process. They also get involved in school/community projects such as fundraising for international development projects.

Community Connections:

The classroom spaces and the teachers within them are by no means the boundaries of the learning in these environments. Each Community of Learners recognizes that the community extends well beyond 'school'. Students and teachers reach out to members of the broader community to enrich the resource base of the classroom. Guests from the community are invited in to the classroom to share their knowledge and

expertise with the learners on a regular basis. These visits are initiated by teachers and students. For example, the local ice hockey team was recently invited into a classroom and the players were interviewed for their perspectives on nutrition, fitness and the importance of collaboration on teams. Authors, artists, community elders, athletes, scientists and civic workers have all been involved in supporting the work of the students.

In addition, the community offers learning space for many activities. Local gardens, community centres, forests, art galleries, aquariums and seniors homes have offered rich and varied learning opportunities.

A key community connection is an evolving relationship with the local university, Vancouver Island University, and its teacher education programs. The university and the school district have entered into a partnership to share physical and human resources in the support of student learning. Cohorts of student teachers have been moved into public school classrooms so that student teachers and K-12 students can learn from each other on a regular basis. Teacher education faculty have partnered with classroom teachers to learn from each other. The university also offers many rich venues for educational experiences for K-12 students. The computer labs, science labs, theatres and art galleries on campus have been the sites of many student visits as learning is moved beyond the walls of the school.

Use made of facilities and space
As stated earlier, these learning environments are functioning within the confines of traditional school structures. Physically, all of the schools are built around the 'factory model' structure that is so endemic to Western education systems. As such, this innovative teaching occurs within the walls of square and rectangular classrooms. That being said, there is little evidence of the rows of desks one has traditionally seen within those rooms. Collaborative processes are key to this work, and the physical environment is structured as much as possible to create opportunities for students to work together.

Classroom spaces are reconfigured within the traditional structures to allow for maximum collaboration.

C. The *nature and quality of the learning* taking place in classrooms, workshops, laboratories, and in the non-formal and other settings. Given the brief nature of the research visit, direct observation will necessarily be limited only to particular occasions judged most illustrative of the distinctive approach of the ILE so that insights on this will need to be inferred from the other sources of information and methods.

This section will be framed around the principles of effective learning environments as included in the case study guidelines:

Makes learning central, encourages engagement, and develops and understanding of their own activity as learners:

It is clearly evident that these learners are active participants in their learning processes. The work of inquiry, particularly as students work within larger inquiry themes to select and plan their own inquiries is central to this ownership. The extent to which students see themselves as essential members of a Community of Learners who are responsible for contributing to the knowledge building that occurs in the classroom is also a key factor. As students teach each other in their collaborative work and circle meetings they bring their knowledge and understanding to their peers.

The continual involvement of students in reflective processes leads to surprisingly well-developed sense of self-as-learner. As students respond to the key questions, 'What are you learning? What do you need to rethink? What's next? in writing, in conference and interviews and in their Mind Maps and ePortfolios, they articulate an understanding of the purpose and extent of their learning. Layered onto this cyclical reflection process, students are asked at the beginning and the end of each inquiry "What are the tools and processes that support your learning?" As we gathered together hundreds of student responses to this question, some very clear patterns emerged. The most commonly occurring responses were:

The Community of Learners

Feedback – from peers and teachers

Inquiry Questions to guide your thinking

Criteria

Learner engagement is obvious and evident in each of these learning environments. It is the first thing that visitors to these learners notice, and the most common observation made by families who attend the learning showcases. Evidence of learner engagement is most obvious as students design learning experiences for each other, and as they prepare for learning showcases. Teachers and parents consistently report that students insist on working well beyond the limits of 'class-time' as they make use of before school, lunch breaks, after school, evenings and weekends to bring together their representations of learning for showcase.

Is where learning is social and often collaborative

This aspect of the learning environment is well-developed and central to the philosophy of the Community of Learners and 'We are all learners; we are all teachers.' Talk - in partners, in circle meetings, in peer conferencing sessions and elbow to elbow coaching sessions – is essential to the building of community and the construction of knowledge. The fact that the learning of every learner is the responsibility of the community creates commitment to collaborative learning. A specific section on collaboration is included in the previous section.

Is acutely sensitive to the individual differences among the learners including their prior knowledge

The personal inquiry that emerges from each broad inquiry question creates a situation that is acutely sensitive to individual differences among learners. Inquiry questions are not assigned – students enter into elbow-to-elbow conferences with the teacher, who probes the connections between the broad inquiry and the students' interests and aptitudes and 'coaches' the students towards a workable plan for their inquiries.

In addition, the jigsaw structure offers each student support in developing skills and knowledge as they work in their Expert groups. Experts (learners responsible for the same topic strands) are expected to share their information with each other and construct learning together before breaking off into Home groups (gatherings of students from different topic strands) and sharing out in a Circle meeting.

The circle meeting conversations offer spaces for students to support each other's learning with the support of teacher facilitation. Students with diverse learning needs are welcomed to these meetings – each is viewed as teacher and learner with something to contribute to the group.

Access to information for diverse learners is built into the resources that are gathered for the students. Varied texts, alternative texts such as internet, film and community resource people and field experiences are essential sources of information.

Is demanding for each learner but without excessive overload

The personal inquiry process and the collaborative structures seem to have created environments where students are engaged in such a way that they surprise themselves and their teachers with the rigour they apply to their learning. This finding has been consistent across ages and grade levels. The Showcase that culminates each inquiry provides a broad and interested audience for the students' work, and they work intensively and voluntarily to prepare for the Showcase sessions. Comments from each of the teachers involved have referred to the students asking for, and using, support and time well beyond the standard requirements of their 'school hours'.

Uses assessments that are consistent with its aims, with strong emphasis on formative feedback

When the core aim is to create a Community of Learners structure, the role of peers and teachers as coaches becomes central. Descriptive and formative feedback is a key element that students and teachers value, and processes to enable feedback to be offered to all learners (students and teachers) are built in. This area has been addressed more specifically in the previous section.

Promotes horizontal connectedness across activities and subjects, in- and out-of-school.

Horizontal connectedness is viewed as the ability to create relevant connections between activities and subjects through the formation of meaningful broad inquiry questions. This creates a situation in which the formation of the question is key to the successful integration across activities and subjects. For example, the Healthy Living Inquiry incorporates Science, Language Arts, Social Studies, Mathematics, Physical Education, Fine Arts and Educational Technology.

The group also views horizontal connectedness as the myriad connections they are making outside of school settings. The central connection is between the classes and Vancouver Island University. As stated earlier, the community is viewed as an essential resource to the inquiry work in terms of physical resources and human resources. Human resources include those employed by the School District, such as Aboriginal Education resource people, and others who have varied expertise – scientists, artists, photographers, musicians, dancers, hockey players, senior citizens, Aboriginal elders, authors – all reside in the community and futher afield and contribute to the learning environment.

Physical resources of the community are also well-utilized as resources for the learning environment. Learning takes place in community recreation centres, forests, beaches, streams, museums, artists' studios and many other locations.

The *impact and effectiveness* of the ILE: compiling the documentary and other research evidence as it exists on such outcomes as those conventionally used in education (achievement and attainment levels, drop-out, graduation, etc.), those specific to the ILE's own aims and philosophy, attitudinal and motivational indicators, and the so-called 21st century competences (see below

The educators in these learning environments are just beginning to create systematic methods of tracking achievement and attainment levels that are emerging from within these spaces.

One key source of evidence is the case study analyses created by educators as members of the Network of Performance Based Schools. In these case studies, educators collaboratively

analyze the results of their inquiry work and attempt to 'tell the story' of the learning taking place.

The British Columbia Performance Standards offer a basis for comparative analysis of achievement within the learning environments that is beginning to be utilized more consistently. As I reviewed five years of class profiles from some of the classrooms and case study reports, I was able to extrapolate some conclusions.

1- The professional collaborative inquiry questions are evolving to reflect increasing sophistication with the processes of inquiry and learning-in-depth among the educators

2- Educators are experimenting with the use of various Performance Standards to track achievement. The most commonly used standards are those for Reading and Writing.

3- A review of Reading and Writing Performance Standard assessments over a 5 year period in two of the classrooms revealed a pattern of over 90% of students 'Fully Meeting Expectations ' or 'Exceeding Expectations'. For the teachers involved, this represented a marked difference from their previous teaching work.

One of the most significant indicators of the impact and effectiveness of these learning environments is in the area of student engagement. It is the first thing that visitors notice about the learners in these environments, and the most commonly occurring comment from the educators and the students. Members of the team have designed an assessment tool that will allow them to begin to monitor student engagement more consistently. The Rubric for Student Engagement tool (see annex) is intended for student self-evaluation and teacher evaluation. This school year marks the first attempt to use this tool and preliminary results are demonstrating that the tool has become an effective tool for allowing teachers and students to discuss and evaluate their orientation to learning and the learning environment.

I asked some of the teachers to reflect on what they've noticed about the nature and quality of the learning and they had these responses to offer:

Jean:
The biggest success and observation of engagement was the preparation leading up to the Showcase and the actual event. Students planned their photographs, took care in their presentation of their work, got excited seeing the class work as a whole, shared their work in progress and their final pieces with their peers and parents on their own time and were enthusiastic about the upcoming event. At the event, they were beaming with pride and engaged in conversations about their work and photography in general. Students arrived early to set up the cafeteria and were in attendance in the morning and afternoon greeting visitors and fielding questions. The outpouring of positive response to their work and the Showcase in general was the ultimate evidence of their engagement.

Mary-Lynn:

When students are immersed in an inquiry environment that is grounded in a culture of a community of learners everyone feels supported and empowered to succeed. The safety and coaching from the teacher and other students through descriptive feedback within a rich

learning environment gives students the confidence to challenge themselves. The learning challenge is revealed through their own personal inquiry questions. Students that typically present with learning challenges are able to meet expectations and in some cases exceed expectations in this type of learning environment. The climate of the classroom engages students in developing self regulation skills through the continuous cycle of feedback and reflection on their next steps to improve learning.

Lynn:

When I used the Healthy Relationships BC Performance Standard I was astonished to see the results of really tracking the change from before working in a Community of Learners with inquiry and afterwards. I looked at the strand that says:
"Identifies relationships that contribute to a positive engagement with school (connectedness)"
At the beginning, all students (20) were in the emerging category. At the end of the inquiry, all 20 were either Acquired or Accomplished in this strand. This was really significant to me for a group of high school students.

This is an element of this case that is in need of a more systematic evidence-gathering approach. The systems are beginning to be developed that will make this possible.

Key classroom teachers involved:
School District #68 Nanaimo-Ladysmith
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Terrill MacDonald
Kerry Armstrong
Wendy Robertson
Jean Kloppenburg
Tanya Lebans

Vancouver Island University:
Dr. Paige Fisher
Dr. Linda Kaser
Dr. Judy Halbert
Dr. Harry Janzen
Barb McLeod
Dr. Neil Smith

Links for further background information:

VIU students take Science Learning Centres to Randerson Ridge School
http://www2.canada.com/nanaimodailynews/news/story.html?id=8ebc7dea-dba0-455a-a25d-715c11fab9df

http://www.canada.com/Elementary+students+glimpse+their+potential+future+university/6041628/story.html

Link to *We are all learners; we are all teachers* ICSEI 2011 paper
http://www.icsei.net/icsei2011/Full%20Papers/0113_B.pdf

Link to Mary-Lynn Epps classroom blog
http://www.insightsonbuildingbridges.blogspot.com/

Link to Mary-Lynn article – teacher award
http://www.nanaimobulletin.com/news/122988698.html

Link to CEA article – Narrative of the Inquiry Classroom

http://www.cea-ace.ca/education-canada/article/propelling-beyond-boundaries

Video links:

Inquiry Learning with Branden and Ryan	https://vimeo.com/39681825
Inquiry Learning - a Parent's Perspective	https://vimeo.com/39681826
Inquiry Learning with Emily	https://vimeo.com/39682506
Inquiry Learning with Dalton, Fraser & Aden	https://vimeo.com/39681827

Note:
Further video and photographic evidence can be made available, if necessary. For more information, please contact
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Annex 1. The Rubric for Student Engagement tool

	Emerging	*Developing*	*Applying*	*Extending*
Engagement in and commitment to the learning community	*Snapshot:* *Student needs direct support to engage in learning activities and to self assess. Little evidence of awareness of learning tools and strategies and/or commitment to learning community.*	*Snapshot:* *Student is able to participate in learning activities with prompting, emerging ability to self assess and adjust strategies, tentative commitment learning community.*	*Snapshot:* *Full participation in learning activities, ability to self assess and adjust strategies, active engagement in learning community.*	*Snapshot:* *Enthusiastic participation in learning activities, metacognitively aware, committed to learning community and to support of others.*
	Emerging	**Developing**	**Applying**	**Extending**
	Requires direct support to participate in learning opportunities	May need prompting and/or guidance to participate in learning opportunities	Consistently participates in learning opportunities	Participates in and contributes to learning activities; often takes on extra responsibilities
	Requires assistance to self assess and recognize strengths and challenges as a learner	Identifies some learning strengths and challenges. May need support to set goals	Recognizes own strengths and challenges as a learner and sets goals to improve learning	Recognizes own strengths and challenges, sets goals for continuous improvement, and supports others
	Needs direct support to think of tools and strategies that support learning	Beginning to recognize that there are various tools and strategies to support learning	Recognizes and uses various tools and strategies to support learning and demonstrate understanding	Self regulated in choosing tools and processes to support learning and can coach others to do the same
	Little evidence of participation in and contribution to the learning community.	Recognizes some of the benefits of participation in the learning community. Needs some prompting or encouragement	Shows a growing sense of responsibility to the learning community (i.e. gives and accepts feedback, supports others)	Demonstrates commitment to the learning community and extends this commitment beyond the classroom context