INQUIRY FOR DEEP LEARNING FOR ALL LEARNERS

A M.Ed. Project by

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Abstract

This study, a retrospective reflection of a teacher’s development, culminates in the design of a resource for educators, focusing on the use of professional inquiry to drive change in senior secondary BC English Language Arts classrooms. The materials are designed to help classroom teachers incorporate formative assessment and deep learning into their practice, reflect on the results for students, and adjust as needed to improve student outcomes. The study includes a rationale for changing pedagogy and a description of how inquiry enabled change in the author’s English classroom and what that changed looked like. As a teacher leader who has made meaningful and lasting changes in her beliefs and practices, the author invites other teachers to use this resource as a starting point for their own inquiry into how classrooms and outcomes can be transformed.
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Glossary

For the readers' convenience, I provide this glossary of specific terms as they are used in this study. Definitions may also appear in the text and are referenced where possible. Some terms are unique to the educational context in the Canadian province of British Columbia and may be known by other names in other jurisdictions.

BC Performance Standards

I understand this comprehensive set of assessment tools as specific and leveled descriptions of achievement that allow teachers to monitor student growth and observe closely the impact of new instructional practices as students' skills improve. The BC Performance Standards (2011) website states:

The BC performance standards have been developed for voluntary use in BC schools. They describe the professional judgments of a significant number of BC educators about standards and expectations for the following key areas of learning: Reading, Writing, Numeracy, Social Responsibility, Information and Communications Technology Integration (ICTI) and Healthy Living. The standards focus exclusively on performance assessment. In performance assessment, students are asked to apply the skills and concepts they have learned to complete complex, realistic tasks. This type of assessment supports a criterion-referenced approach to evaluation and enables teachers, students, and parents to compare student performance to provincial standards. (para. 1)

craft knowledge

Burney (2004) defined craft knowledge as the understanding and skill that teachers have acquired through daily practice, but emphasized the value of inquiry and
collaboration for its development: “The education system impedes the ability of teachers to develop their craft knowledge and use it to inform practice because teachers work in isolation and seldom share their understanding” (Burney, 2004, abstract).

**deep learning**

This term refers to learning that goes beyond a superficial level. Deep learning is the ability to think about information critically and creatively; to communicate effectively; to work collaboratively; and to solve complex problems. Deep learning still focuses on mastering content; however, the focus is not only on what is being learned but how it is being learned. Deep learning teaches students how to learn, and emphasizes the importance of personalization and increased student ownership and engagement.

**engagement**

Student engagement is closely related to student ownership of their learning. This form of engagement is intellectual rather than social or academic. It refers to learners being active and mindful participants in their learning. They are invested in their learning because it is meaningful and meets a need within them. Engagement results from learning experiences that connect to the interests, needs and strengths of learners. It may result from lessons that ignite curiosity or excitement; relationships that meet social needs; or activities that are relevant to students’ lives.

**English**

I use this term in the popular vernacular of secondary teachers, to refer to the English Language Arts curriculum for British Columbia, as presented in the Integrated Resource Package (IRP) (BC Ministry of Education, 2007).
formative assessment

Earl (2003) stated that formative assessment, also known as assessment for learning, shifts the focus of assessment from making judgements to creating descriptions that can be used in the service of the next stage of learning. According to Wiliam and Black (1998), assessment is formative when the evidence gathered by the teacher on a student's performance is used to adapt teaching to meet the needs student's identified needs.

knowledge based society

In education, this term refers to a society that has moved into the 21st century. It is now based on wide access to information, ideas and social connections due to advancements in technology and globalization. A knowledge based society is stimulated and driven by creativity and innovation and encompasses the public good; as a result, it requires an education system that is based on these same principles.

mindset

Mindset is a term adapted to educational leadership from the work of Carol Dweck (2006) by Linda Kaser and Judy Halbert (2009). Dweck described how a fixed mindset encourages people to believe that their basic qualities, such as intelligence and talent, are inherited and fixed; therefore, there is little people can do to change these attributes. However, when people adopt a growth mindset they believe that their basic qualities can be improved through effort and dedication. Kaser and Halbert (2009) described the growth mindset they observed in educational leaders of schools that are
making progress toward sustainable change for deep learning, in terms of six characteristic ways of thinking.

**Network of Performance Based Schools**

The *Network of Performance Based Schools* has been given a new title, the *Networks of Inquiry and Innovation*. I refer to both in my study and often refer to the former and current organization as simply the *Network*. According to their website, the work of the organization that has been renamed *Networks of Inquiry and Innovation* is funded by the British Columbia Ministry of Education and is designed to improve quality and equity through inquiry, teamwork across roles, schools, and districts, and a concentrated focus on applying coaching forms of assessment to assist learners to take greater ownership of their learning. (*About* section, para. 1)

**ownership of learning**

This is the sixth of Kaser and Halbert’s *Six Strategies that Matter*, as adapted from Wiliam and Black. Brown and Cherkowksi (2011) explained that “learners who have achieved the ultimate goal, a sense of ownership, understand their unique strengths and needs and can routinely identify personalized goals” (p. 61). It is possible that ownership of learning can be a strategy itself and also a result of the use of the other five formative assessment strategies highlighted.

**personalized learning**

A personalized learning approach gives students more control over what and how they learn. Dumont, Istance, and Benavides (2010) have described personalization as occurring in a learning environment that is “highly sensitive to what the different learners within them already know and can do. As I understand this, teachers who personalize
learning actively build on this sensitivity and knowledge by inviting students to make motivating personal choices about what and how they will learn and represent their learning.

**professional inquiry**

Professional inquiry is a reflective learning process for teachers. The Networks of Inquiry and Innovation assert that the purpose of professional inquiry is “to address important areas of student learning need through teamwork, focused professional learning, sharing of resources and strategies, application of evidenced informed strategies, and the development of new and innovative approaches to learners and learning” (NOII website, 2012). Timperley (2011) described the five stages of an inquiry cycle: teachers (a) identify the knowledge and skills their students need (b) determine the knowledge and skills they need to meet student needs (c) deepen their personal knowledge and refine their skills (d) engage students in new learning experiences, and (e) identify the impact of the changes in instruction on student learning. The action and reflection cycles of professional inquiry are rooted in the traditions of action research (Brown & Chekowski, 2011) and used purposefully by teachers to improve learning opportunities for students.

**professional learning communities**

A professional learning community occurs when a group of educators work together toward a common vision to improve the learning of their students. The term is often used to refer to small groups of educators engaged in focused professional inquiry focused on increasing student achievement (for example, Dufour & Eaker 1998; Dufour, Eaker, & Dufour, 2005). There is strong collegial trust because members must become
vulnerable and expose their practice while taking risks in the pursuit of change and improvement. In these small groups, each member “develops a specific plan for what he or she wants to change in his or her classroom practice. The groups meet regularly to support team members in carrying out and refining their plans” (Mitchell & Sackney, 2009).

**spiral of inquiry**

Halbert, Kaser, & Koehn (2011) stated that the spiral of inquiry provides a framework for inquiry in depth. These authors encourage teachers working together to go through eight steps that are a variation on the action and reflection steps of professional inquiry: (1) identify a learning challenge (2) ask why does this matter (3) generate a question (4) develop success criteria (5) plan with others (6) engage in teaching and learning (7) assess learning (8) look for patterns. The spiral occurs when successive, deepening cycles of inquiry focus on the same topic and begin with the questions generated at the end of the previous cycle.

**teacher leader**

There are competing definitions of teacher leadership but for this project, I begin with a definition of educational leaders as those who put in place learning that engages students intellectually, socially, and emotionally (Hargreaves & Fink, 2004). I combine this focus on learning for students with the Katzenmeyer and Moller (2001) definition of teacher leaders as: “teachers who are leaders lead within and beyond the classroom, identify with and contribute to a community of teacher learners and leaders, and influence others towards improved educational practice” (p.24). Lieberman and Friedrich (2010) describe experienced teachers as teacher leaders when they work actively for what they
believe is best for their students, collaborate with their peers and open their practice to others, take a stand for their beliefs and accepting the possible risk, and adopt the stance of lifelong learning and reflection on their practice. Therefore, in this study, teacher leaders refers to teachers who contribute to engaging student learning within and beyond their own classrooms by inquiring and collaborating with colleagues to improve practice.
Acknowledgement

I would like to thank Judy Halbert, Linda Kaser, and Debbie Koehn for being role models, mentors, and friends throughout my learning journey. Many thanks also to Willow Brown whose support and guidance helped me make it to this particular milestone. I would also like to acknowledge my students, past and present, whose curiosity and passion for learning have inspired me to be a life-long learner and the best educator possible. Finally, I would like to thank the people who have taught me the greatest lessons of all – my family. Matt, Braden, and Olivia, I couldn’t have done this without you.
Chapter 1: Exploring the Frontier

As society moves through the second decade of the 21st century, an exciting transformation is occurring in public education. This change has been the result of educators realizing that the current, traditional system of education may no longer be relevant for 21st century learners. Change oriented educators in the Canadian province of British Columbia (BC) believe that students are changing; in fact, they have already changed, and the industrial model that was the blueprint for public education for almost 100 years is no longer effective for many of these students (Senge, McCabe, Lucas, Kleiren, Dutton, & Smith, 2000). Teachers who are finding their way with alternatives to the industrial approach to education are venturing to make real and meaningful changes in their beliefs and practice – there is a great deal of advocacy for change but only emerging guideposts as to how to achieve it in specific classrooms.

Two prominent initiatives in educational reform hold out promise for improvement: (a) the practice of formative assessment (Earl, 2003; Kaser & Halbert, 2009; Wiliam, 1998) and (b) personalization through for deep learning (Dumont, Istance, & Benavides, 2010). To a classroom teacher, these initiatives may seem intimidating and arduous to implement. However, adopting a growth mindset (Dweck, 2006) or a learning or inquiring mindset (Kaser & Halbert, 2009), reveals these initiatives as learning opportunities and not problems, two aspects of an exciting frontier waiting to be explored by innovative teachers. In my own practice as a secondary teacher of English Language Arts, an inquiring approach to implementing formative assessment has helped me to personalize learning and invite greater student engagement or ownership.
At the end of this long journey that became an ever-deepening and fulfilling spiral of inquiry, I wanted to share my experiences and offer a roadmap for other teachers. Thus, I have developed a resource for teachers to show how inquiry on this frontier can propel profound change in teaching and learning. Through inquiry – engaging in their own cycles of classroom action and reflection as they implement the strategies and concepts of deep learning and formative assessment, my own experience has taught me that teachers can learn how to improve their students’ motivation and achievement.

The teachers’ resource that I have provided in Part II of this document was designed to provide teachers with a working knowledge of both of these pedagogical innovations, illustrated with examples from the secondary English Language Arts (BC Ministry of Education, 2007) curriculum. In the resource, I have also provided examples of how inquiry and collaboration in professional learning communities enable teachers to make changes in their practice necessary to transition from a *sorting system* to a *learning system* (Kaser & Halbert, 2009) and from a focus on 20th to 21st century skills (Dumont, Istance, & Benavides, 2010).

Two questions have focused my thinking as I engaged in this inquiry: a) *What is the essential knowledge that I want to share?* And b) *How can I share it in a way that will inspire others to engage in inquiry as they apply it in their own classrooms and make their own meaning of student responses?* My ultimate goal is to give educators a compelling rationale for change and to encourage them to build their own visions and construct their own understandings to sustain improvements in their practice (Fullan, 2007). My hope is for other teachers to integrate external knowledge with their own experiences by engaging in the inquiry process themselves. I envision that the resource I
have provided may encourage teachers to make authentic and meaningful changes in their practice. I believe that by making these changes and embarking upon the continuous spiral of teacher as learner, teachers can improve the quality of education so that many more learners will be prepared to navigate successfully in a knowledge-based society.

The Need for Change

As a teacher in the public education system for the last fifteen years, I have seen how disconnected our traditional system has become from the reality of our students' lives and indeed, the reality of the world outside school. As Kaser and Halbert (2009) have asserted, our students currently live in a "new knowledgeable world and have access to information, ideas and social connections unimaginable a few years ago" (p. 11). The skills and knowledge students need today are continuously changing from the skills and knowledge their parents needed a generation ago. However, instead of creating minds that are capable of critical thinking, questioning, and innovation, minds that can take on the challenges and opportunities of the 21st century, it appears that many students in our current system are learning only to jump through hoops, memorize facts temporarily, and play "the game" so that they can leave school and move on with their lives.

Despite the efforts of the best teachers, our current system does not always maintain learning or even students as a central purpose. What drives the system is not the needs of its learners but of the institution itself - one with four walls and a bell that rings every hour to dictate the movement of students and teachers. Students are sorted and ranked based on how well they can play this game and navigate this institution; sadly, this approach to education does not engage or inspire many teachers and learners, resulting in students leaving school unsuccessful, unprepared, and unable to cope with
change as adults. Earl (2003) stated that students need “to not only possess competence and confidence in a broad range of areas, but also the tools to adapt to new knowledge as it comes along” (p. 4). Clearly, educational systems and teachers within them must also adapt to the new needs of learners. The stakes of education have become too high to ignore. If students are not successful in school, everything from their quality of life to their life expectancy is impacted (Wiliam, 2008). The most promising response, as advocated by Kaser and Halbert (2009), is for teachers to work toward raising the levels and engagement and achievement of all students through the examination of next practice, not best practice.

The Promise of Formative Assessment

Learning to engage and inspire non-committed learners may seem like a looming and overly ambitious task for teachers alone, but for the emergence of formative assessment, or assessment FOR learning (Earl, 2003; Kaser & Halbert, 2009; Wiliam, 1998, 2007, 2011). The new practice, its research-based promise, and its supported implementation in the classrooms of hundreds of inquiring BC teachers have turned a naïve or idealistic dream into an achievable goal. The inquiry-based, innovative work of teachers in their own classrooms, connected to each other through the Network of Performance Based Schools (NPBS), now renamed the Networks of Inquiry and Innovation (NOII), has been instrumental in transforming hundreds of BC classrooms to places where learning and the needs of the individuals are more visibly and consciously the first priority. As these teachers have learned to practice formative assessment and participate in cycles of inquiry, their students have moved toward ownership of their learning (Kaser & Halbert, 2009). As Brown and Chenkowksi (2011) have explained,
“learners who have achieved the ultimate goal, a sense of ownership, understand their unique strengths and needs and can routinely identify personalized goals” (p. 61). With ownership, students have begun to experience the increased engagement that comes with personalized learning.

My Contribution as a Teacher Leader

In my last eight years of teaching, as part of the NPBS professional learning network, I have found that my own developing mastery of formative assessment has played a key role in my students becoming more empowered, motivated, and engaged. I believe my students have also gained more experience with deep learning processes, such as critical thinking, problem solving, and collaboration, that are necessary for success beyond the classroom. However, I understand that not every teacher has had the benefit of the mentorship I have had, nor the time and inclination to explore the connections between formative assessment and deep learning. Therefore, in this project I would like to offer my experience and craft knowledge (Burney, 2004) in the form of a resource for secondary English teachers, as a contribution to my colleagues and the students they serve.

Over the past eight years I have completed eight inquiries for the NPBS and one inquiry for a post-graduate program through the University of Victoria. Reports of these inquiries have been published online and in printed NPBS anthologies. Four have been presented at educational conferences: the BC Teachers' Congress (Davey & Krall, 2007); the BC Rural Schools Conference (Davey & Forster, 2008), the International Congress for School Effectiveness and Improvement (Davey, 2009); and the Networks of Inquiry and Innovation Leadership Seminar (Davey and Koehn, 2011). The inquiries themselves
have also provided data-informed evidence that has led me to believe that teachers who practice formative assessment can help students build a repertoire of skills that go beyond reading, writing, and arithmetic. However, little of the support material for learning to practice formative assessment is specific to the BC English Language Arts curriculum at the senior secondary level. Further, coherence between the two initiatives—formative assessment and deep learning—may not be clear, so that the two initiatives appear to compete for teachers’ time and attention. In the materials that I have created, I have taken care to demonstrate the compatibility of the formative assessment and deep learning and how they can be integrated in a senior secondary English classroom.

**Purpose of the Project**

The purpose of this project is to share with teachers, particularly those in the senior secondary English setting, specific examples of inquiries that will help them move toward deep learning by practicing formative assessment. I acknowledge how difficult it can be to change longstanding practices and beliefs; therefore, I also plan to share how belonging to the Network of Performance Based Schools (NPBS) and engaging in a spiral of inquiry has helped me make these changes in my own practice. Kaser, Halbert and Koehn (2011) asserted that “a deep focus on inquiry is most effectively realized through the active participation of teachers in a nested collaborative inquiry community” (p. 3). NPBS brought together teams of teachers who used inquiry, collaboration, and formative assessment as a way to move student learning forward. My own experience has shown me that inquiry has deepened my learning which, in turn, has informed my practice. I was able to engage in successful inquiries and implement new ideas in my
practice through the collaborative support of the Network and the materials that the leaders of this organization provided.

Fullan (2001) asserted that the successful implementation of a new idea consists of “(1) using new materials, (2) engaging in new behaviours and practices and, (3) incorporating new beliefs” (p.1). Therefore, new materials specific to their teaching area may help teachers move toward new behaviours, practices and beliefs that realize the ideals of the formative assessment and deep learning movements. New materials used in a collaborative, inquiring way may be particularly powerful for creating changes in teaching practice and the beliefs that will sustain them.

An example of the relationship between practices and beliefs and sustainable change occurred when the BC Performance Standards were introduced as an assessment tool for classroom teachers. These specific and levelled descriptors of achievement enabled teachers to monitor student growth against benchmarks and more closely observe and document the effects of new practices as students’ skills improved. Use of the Performance Standards greatly increased when the leaders of NPBS, Linda Kaser and Judy Halbert, encouraged teachers to base their inquiries on the impact of new practices with reference to the Performance Standards.

My purpose in this study is also to tell the story of my own journey into the use of inquiry as a driver of educational change, and how my own teaching transformed. The resource that I have shared here is not a polished blueprint or a how-to manual; rather, it will describe how my journey through the process of inquiry, coaching, and collaboration transformed my identity as a classroom teacher. Woven among unit plans and assessment tools is the story of how I came to view myself as a teacher leader who
strives to put the learning of my students at the centre of all I do and to influence my teaching colleagues to do the same. This priority has informed my practice and helped me to construct the craft knowledge that I have shared. I hope that my successes and failures will inspire, inform, and encourage other educators and may help them make deep and meaningful changes in their own practice through the use of inquiry.

I have seen for myself how traditional educational systems and practices can have negative impacts on student motivation, engagement, and outcomes. For many bright and motivated students, learning is limited by a ceiling that is part of life in the current school system -- once a desired mark is achieved, why go beyond? Struggling learners are unmotivated to succeed in a system where they have already settled to the bottom -- why should they care now? Earl (2003) confirmed these observations: “when people constantly fail, they lose their motivation to learn and go to great lengths to avoid the pain of failure” (p.37). Disengagement is rampant in high schools as students often feel that what they are learning will be little use to them once they leave. Truthfully, I often agree with them. However, I have also seen how these attitudes can change when educators use formative assessment and engage in deep learning through inquiry.

When teachers build their practice around formative assessment and deep learning, they help students gain control over what they learn and how they learn it. Curiosity and imagination, which have seemed to drain slowly out of students since elementary school, are re-awakened. Choices as to how students want to demonstrate their learning help them to become active drivers of their education rather than the more typical passive bystanders. Thus, I have designed a resource to help classroom teachers
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transform their teaching, to build learners that are engaged, capable, and ready to take on
the challenges of the modern world.

The Power of Inquiry

Moving from a sorting to a learning mindset (Kaser & Halbert, 2009) as a teacher
takes time, support, and a great deal of professional development. In my experience, the
greatest ingredient for changing ingrained and long-held educational beliefs and practices
is the use of inquiry. I began making the change in my own practice eight years ago when
I joined NPBS. At that time, it was a network of BC educators who meet at least three
times a year to develop formative assessment in their practice through inquiry and
collaboration with peers. NPBS leaders inspired teacher members with a shared vision,
that all learners would be prepared to “walk the stage with dignity, pride and options”
(Kaser & Halbert, 2011, p. 6).

I learned of the Network during my first year teaching at the secondary level. Like
many other teachers in the province, my classes were very large and filled with students
with diverse learning needs. However, when it became apparent that my current teaching
practices were not meeting all of these diverse needs, NPBS gave me the support and
knowledge I needed to start making vital changes. There was a focus on improving the
learning of all of my students, not just those who were capable or privileged.

First, the Network introduced me to formative assessment, which challenged the
traditional use of grading in schools. Instead of using evaluation to sort and rank students,
formative assessment shifts the emphasis to sharing feedback with students to promote
their learning (Stiggins, 2004). Halbert and Kaser (2008) introduced me to the Four Big
Ideas and Six Strategies That Matter in formative assessment which then became the
foundation of my pedagogy. For the last eight years I have implemented those ideas and strategies, with each new unit developing and honing my ability to use formative assessment to improve the success of my students. Not only did Kaser and Halbert (2008) give me valuable new materials and information, they were also able to give me the inquiry skills to transform my teaching for myself. They helped me mobilize knowledge and turn theory into practice.

Deep Learning

My own experience and a strong research base suggest that educators may improve the motivation and achievement of students through the teaching of deep learning skills and the personalization that results from formative assessment. Deep learning has always been an ideal for education but strategies for it have usually been limited to gifted programs or special academies. Deep learning is made possible when the focus is not solely on content but on the process of learning as well. Deep learning strategies include critical thinking and problem solving; collaboration across roles; agility and adaptability; ingenuity and entrepreneurship; effective oral and written communication; accessing and analyzing information; and curiosity and imagination (Dumont, Istance, & Benavides, 2010). At the moment, some authors have labelled these skills Twenty-first Century Learning Skills (Dumont, Istance, & Benavides, 2010), but they are skills that were needed in the 20th century and skills that will still be necessary in the 22nd century; indeed, these are not just skills for success in school, but skills for success in life (Wiliam, 2008). Deep learning is personalized learning that provides students with the skills they need to explore an educational path that is best suited to their interests, capabilities, and chosen as well as uncertain futures.
Chapter Summary

In this chapter I have focused on an issue of student disengagement in learning that I believe can be addressed by classroom teachers as they move their practice toward formative assessment and deep learning. I have described the teachers’ resource that I have designed to support secondary teachers in the transformation of their pedagogy and I have described the professional learning path that has prepared me to make this contribution as a teacher leader. As one who has begun to explore change to meet the needs of students in the 21st century, I invite other teachers to share my ongoing inquiry and providing a resource that may help them to do so. Throughout this work, there runs a strong fibre of moral purpose (Kaser & Halbert, 2009) or moral stewardship (BCPVP, 2007) – the striving for more meaningful engagement in learning for all students.

Organization of the Project

This project is written in two parts. Part I, Rationale and Preparation, includes three chapters. Chapter I provides a rationale for change in teaching and learning and describes the resource that I have contributed to guide teachers in change-oriented inquiry. Chapter II contains a review of the literature that has informed my learning about formative assessment and deep learning as teaching innovations or collections of new strategies and beliefs. Chapter III describes the process of design that I used to create the teachers’ resource, A Journey to the Frontiers of Deep Learning, which is presented in Part II. The first part of this Project is written in an academic style but the second part is written less formally, with an audience of teachers in mind. Throughout the seven chapters of this resource, the story of my own learning journey and teaching
transformation is woven through the curriculum related information and literature and research-based arguments.
Chapter II: Review of the Literature

The purpose of this literature review is to outline the research that informed my practices as an educator and teacher-leader and helped construct the craft knowledge (Burney, 2004) that I have shared in Part II of this document as a resource for other teachers. My pedagogy was transformed from a sorting to a learning mindset using an inquiry process, which allowed me to integrate the work of these educational researchers with my own experience. The literature reviewed here provides a rationale for why education needs to transform and for the importance of a deep learning approach in that shift. In addition, I present literature that supports the use of formative assessment, the process of inquiry, and collaboration in professional learning communities. As learning strategies for teachers, these initiatives can also help teachers make meaningful changes in their practice and pedagogy that will help foster deep learning for students.

Changing Mindsets: Sorting to Learning

Kaser and Halbert (2009) have advocated a shift from a sorting mindset, where the focus is on ranking and sorting students, to a learning mindset, where the focus is solely on student and teacher learning. Their writing is part of a body of literature calling for educational reform, written by researchers who believe that the factory mindset that dominated traditional education over the last 80 years is now outdated and insufficient to serve the needs of students or society in the 21st century. A profound transformation in the area of education has been long overdue, as Harris (2008) asserted: “The education terrain is rapidly shifting and the existing structures and boundaries of schooling are fast eroding” (p. 19). Society has greatly changed over the last 100 years, yet the model of education has not changed significantly. Earl (2003) stated that “for the most of the 20th
century, and even now, factories have dominated the economy, and schools organized around a factory model have been consistent with the world around them” (p. 5), showing that industrial age education mirrored the needs of society at the time. However, society has moved passed the need for an industrial model of education where emphasis was placed on covering the curriculum and memorizing facts, and students were managed, ranked, and sorted. We now live in a “new knowledge world” where “learning – not sorting – is the key mandate of schools” (Kaser & Halbert, 2009, p. 11). Students are members of a knowledge-based society where copious amounts of information are available at their finger tips and new innovations and technologies are discovered everyday.

This knowledge-based society brings the need for new skills such as critical thinking, problem solving, and the ability to adapt to ever-present change. A BC Ministry of Education (2010) document exploring the need for education reform has stated that “traditional skills like literacy, numeracy, and critical thinking need to be applied in different ways and supplemented with new skills and attributes in order for students to become full participants in a knowledge-based society” (p. 15). In addition, Sir Ken Robinson (2010), a leading thinker on creativity, has noted that:

Traditional education’s focus on facts, memorization, basic skills, and test taking has not been good for the development of creativity and innovation. This is changing in the 21st century, and education systems from Finland to Singapore are beginning to put creativity and innovation as a high priority in their desired outcomes for student learning”. (online video clip)
These voices represent the pressure for educational reform toward more personalized, independent, and technology-based learning— and classroom environments that empower students to own their learning.

Two important mandates of public education in a democracy are to create citizens who are able to participate in society and who are able to fill the jobs that society now requires (Osborne, 1999). Stakeholders in public education have both a moral and economic imperative to rise to the challenge of transforming the existing education system to achieve this purpose. William (2009) argued convincingly: “If you achieve at a higher level, you live longer, are healthier, and earn more money” (p. 1). More successful students become healthier, more productive, and prosperous adults who can pay more taxes in the long run and be less of a burden to medical, judicial, and social programs; in fact, it has been calculated that “if a student who drops out of high school would stay to graduate, the benefit to society would be $209,000” (Levin, Belfield, Muennig, & Rouse, 2007). Reducing the need for high quality education to dollars and cents may seem cold but to some of those who have the power to make political policy and funding decisions, it is the most valid reason for educational reform.

There are other compelling reasons for changing the current education system that appeal to other values. In many classrooms around the province, as described by colleagues I have encountered, high school students are observed as disengaged and unmotivated. They see their learning as external, imposed upon them by the expectations from parent and community, with no expectations as participants of learning. Learning now almost has a negative connotation, associated in students’ minds with intimidating tests, hours of homework, and boring lectures. Children entered kindergarten excited
about this new world called school but by grade 12, many do not value their school experiences. Brownlie and Schnellert (2009) recognized the power of motivation for student learning: “Motivation affects engagement, the key to all learning” (p. 5). In order for learning to improve, students need to feel engaged and see meaning in what they are learning. They need to feel as though they have some control over what they learn and how they learn it: “When all control seems to exist other than within the student, students may have difficulty maintaining their motivation for learning” (Brownlie & Schnellert, 2009, p. 5). Students need to feel they have voice and choice in what they learn and how they learn it, enabling them to become owners of their learning and increasing motivation, engagement, and ultimately, achievement as evidence of learning.

The Need for Deep Learning

If we, as educators, know that traditional knowledge and traditional ways of teaching are not meeting the needs of our current students and our society, then what are the alternatives? The following research suggests that educators may improve the motivation and achievement of students by focusing on deep learning. Instead of focussing instructional attention on curricular content only, attention should be paid to skills and processes, a trend that has been evident in curriculum guides over the past decades but has not always been addressed by teachers driven to prepare students for content-based exams. Content is still an important component of education relevant to student learning; however, emphasis is now being placed on how to access content, how to deeply think about and understand content, and what to do with content once it is learned. It makes sense for educators to focus as much on teaching learners how to learn as on what they learn, so that they can navigate knowledge for themselves outside a
school setting. Instead of giving students what we feel they need to know, we should be “helping them develop supple and nimble minds, so that they will be able to learn whatever they need to” (Claxton, 2004, p.1).

In order for students to acquire deep learning, their education needs to be personalized. Personalized learning engages learners, giving them voice and choice, and increases motivation. It is also flexible, varied, and empowering. There will still be foundational skills such as reading, writing, and arithmetic; however, how we deliver them has evolved. There will be more opportunities for self-initiated and self-directed learning where teachers are facilitators and co-learners. Parents and community members are key contributors to this model.

The importance of deep learning for every student is becoming more relevant for stakeholders in education, from researchers to classroom teachers. Authors of The Nature of Learning (Dumont, Istance & Benavides, 2010) have presented the work of leading researchers in North America and Europe who have identified seven key principles that optimize learning in classrooms and schools (see Figure 3). These seven principles are meant to guide the design of learning environments and “offer evidence-based signposts to effective practice and the redesign of schools and classroom” (Dumont, Istance, Benavides, 2010, pg. 319). They capture the essence of the conditions that need to be in place in order to provide students with deep learning opportunities. These seven principles illustrate how many educational beliefs, practices, and structures must weave together in a unique pattern to create deep learning.
1. Learners are at the centre.
2. The social nature of learning.
3. Emotions are integral to learning.
4. Recognizing individual differences.
5. Stretching all students.
7. Building horizontal connections

*Figure 1.* Seven core principles for designing learning environments (Dumont, Istance, & Benavides, 2010).

In addition to the theoretical world, there are members of the educational practice community who also believe that a deep learning approach will lead to meaningful change in teaching and improved student outcomes. The BC *First Nations Education Steering Committee* has recently published the *First Peoples Principles of Learning* (see Figure 4) which also captures the essence of other key aspects of deep learning. Deep learning is diverse, transdisciplinary, and inclusive, and these principles illustrate how the traditional, fixed and impersonal nature of many secondary classrooms needs to grow, shift, and adapt to the needs of today’s learners so that the focus is not solely on content.
Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits and the ancestors.

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness on reciprocal relationships, and a sense of place).

Learning involves recognizing the consequences of one’s actions.

Learning recognizes the role of indigenous knowledge.

Learning is imbedded in memory, history, and story.

Learning involves patience and time.

Learning requires exploration of one’s identity.

Learning involves recognizing that some knowledge is sacred and only shared with permission and/or in certain situations.

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<th><strong>First Peoples Principles of Learning</strong> (FNESC, 2012)</th>
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In addition to sophisticated cognitive skills, a focus on deep learning addresses social and emotional development in students. Advocates of deep learning understand that learning is a highly personal, context-driven phenomenon that thrives in the context of rich relationships and healthy social and emotional development. As Dumont, Istance and Benavides (2010) have asserted, “learning results from a dynamic interplay of emotion, motivation and cognition... the emotional and cognitive dimensions of learning are inextricably entwined” (p. 321). Although the 21st century may be marked with a reliance on technological breakthroughs, learners in the 21st century are not robots who merely require the appropriate input of data. For learners to be successful both in school and then in society, educators must also address their social and emotional needs.
It is clear that our current system needs to change to better meet the needs of our students; however, merely changing the curriculum of the current system is not enough, no matter how relevant and meaningful that new curriculum is. Wiliam (2011) recognized that “almost every country aspires to have a curriculum for the 21st century” (p. 12), but what will impact learning the most is changing how that curriculum is taught. In many regards, it is the how rather than the what that needs true reform. Indeed, Wiliam (2011) asserted that “a bad curriculum well taught is invariably a better experience for students than a good curriculum badly taught: pedagogy trumps curriculum or more precisely, pedagogy is curriculum, because what matters is how things are taught, rather than what is taught” (p. 13).

**Change at the Classroom Level**

If educators in BC and beyond adapt to the changing needs of a knowledge-based society and its learners, what will that change look like? And are teachers alone capable of invoking this profound change? The following research outlines what kind of changes teachers can make to adopt and sustain deep learning strategies. In BC, the impact of NPBS suggests that teachers inquiring and learning in a collaborative network that spans the province can have substantial impact and contribute to systemic change. However, it must be noted that the considerable gains in the practice of formative assessment that have been made across the province have been accompanied by a move toward official Ministry approval for the initiative and widespread administrator learning on the topic. As Fullan (2007) has asserted, impact occurs when there is alignment between top-down and bottom-up change.
The biggest influence on student learning is the teacher (Hattie, 2009). William and Black (2008) have inspired teachers with their assertion that “learning is driven by what teachers and pupils do in classrooms” (p. 3). What each teacher does in the classroom has the greatest impact on learning; the power of change is in teachers’ hands. Teachers have the greatest opportunity over any other “input” to activate change in the classroom; consequently, change “is up to teachers: they have to make the inside work better” (Wiliam & Black, 1998, p. 2).

Dylan Wiliam (2009) has firmly asserted that teachers’ classroom practice of formative assessment is by far the most influential, efficient, and beneficial educational change that will bring about the greatest improvements in student learning: “An analysis of the research reveals that helping teachers develop... formative assessment practices is more cost-effective than any other strategy” (p. 2). As a leader of an international formative assessment movement, Wiliam has emphasized the opportunity, which he frames as an imperative. His work has inspired local educational leaders to encourage teachers to embrace this new pedagogy and make formative assessment a foundational component of their practice. Many of us are now empowered with the thought that “teachers’ minute-to-minute and day-by-day formative assessment practice is the most powerful way to increase student achievement, in order to improve student learning” (Wiliam, 2007, p. 149).

What is Formative Assessment?

The following research defines what formative assessment or assessment for learning is, the impact it has on student learning, and its potential to help move education from a sorting to a learning system. Traditional education is typically a sorting system
where the focus is on instruction and teaching and assessment is summative, used primarily for grading and reporting. Otherwise known as assessment of learning, summative assessment focuses on comparing students and giving feedback in the form of marks or grades. By the time this assessment or evaluation is given to students, the learning has finished. In a learning system the focus is on deeper forms of learning where the assessment is formative and includes descriptive coaching feedback to support learner self-regulation (Halbert and Kaser, 2009). Formative assessment is ongoing through the learning process, often occurring more than once.

A great deal of research, confirmed by my own experience, suggests that formative assessment can help students become more engaged and successful in school. Wiliam and his colleagues laid out five nonnegotiable components of an effective formative assessment system for teachers to implement in order to tap the full potential of formative assessment (Leahy, Lyon, Thompson, & Wiliam, 2005). Halbert and Kaser (2009) adapted Wiliam’s five strategies of formative assessment to create Six Strategies that Matter (see Figure 3). They also developed four big ideas as guideposts for teacher thinking (see Figure 4). With collaboration in networked conversations, these strategies and ideas became mantras to support changed practice. As teachers observed the effects on students, these strategies and ideas became deeply held teaching beliefs, widely distributed among Network members.

The Four Big Ideas and Six Strategies That Matter became the foundation of my pedagogy. For the last eight years I have put those ideas and strategies into practice, developing and honing my ability to use formative assessment to improve the success of my students.
1. Provide learners with clarity about and understanding of the learning intentions of the work being done – this means that learners should be able to tell someone else in their own words what the learning intentions are and how they connect to life beyond school.

2. Provide to and co-develop with learners the criteria for success. This means that learners have clear criteria for quality and know what part they are aiming to get better at.

3. Provide regular, thoughtful feedback that moves learning forward for the individual learner. This means that, over time, learners get used to knowing how to improve.

4. Design and use thoughtful classroom questions to lead discussions that generate evidence of learning. This means that learners practice being ready to think and know that “no hands up” and individual responsibility for thinking about the question are regular parts of learning life. It also means that teachers work together ahead of time to develop really strong questions to use part way through a learning sequence.

5. Put learners to work as learning/teaching resources for each other. This means that learners know strategies and have internalized quality criteria so that they can be productive with their same age and older and younger learning colleagues.

6. Do everything you can think of to make sure that learners are the owners of their own learning. This means that learners are genuinely engaged in learning and confident that they can learn and think about their own learning.

*Figure 3. The NPBS Six Strategies that Matter.* (Kaser & Halbert, 2008). (Reprinted with permission.)
1. Learner self-coaching through learning self-assessment is the goal of deep learning work.

2. Nimble and responsive teaching: teachers need to practice nimble and responsive planning and teaching to make formative assessment and learning a way of life.

3. Inquiry-mindedness as a way of learning life: inquiry-mindedness is using thoughtful strategies and then looking for evidence of deeper learning, is a necessity for learners, teachers, and leaders.

4. Learning for all through networks: because all teachers want to make a big difference for all learners – and especially those who are vulnerable – teachers need small networked communities of educators working together across roles and schools to get the gains for learners we need. Isolated efforts do not work for vulnerable learners. They need and deserve sustained and connected learning. Formative

Figure 4. The Network of Performance Based Schools Four Big Ideas. (Kaser & Halbert, 2008). (Reprinted with permission.)

Fostering Change Through Inquiry

Collaborative inquiry in professional learning communities is a recent educational innovation that supports changes in teachers’ practices and beliefs. A professional learning community occurs when a group of educators work together toward a common vision to improve the learning of their students. There is strong collegial trust as members must become vulnerable and expose their practice, as well as take risks in the
pursuit of change and improvement. In these small groups, each member “develops a specific plan for what he or she wants to change in his or her classroom practice. The groups meet regularly to support team members in carrying out and refining their plans” (Mitchell and Sackney, 2009). Earl and Timperley (2008) have further described the link between collaborative inquiry and the development of a community where professional growth is ongoing:

Conditions for improving learning and teaching are strengthened when teachers collectively question ineffective teaching routines, examine new conceptions of teaching and learning, find generative means to acknowledge and respond to difference and conflict and engage actively in supporting one another’s professional growth (p. 124).

Many teachers want to provide the best education they can for their students and many recognize that the current system needs to be transformed. Many even believe they know what changes need to be made; however, the chasm between knowing and doing can be profound. Wiliam (2008) recognized how difficult it is to change ingrained behaviours even when teachers have compelling reasons to change them. He asserted that “the crucial thing is to change habits, and traditional teaching structures do not change habits”(p.14). The ideal of a sustainable, self-renewing community that supports and distributes individual teacher learning (Mitchell & Sackney, 2000, 2009) has inspired educators over the past decade. Inspirational and practical professional development Professional Learning Community (PLC) workshops by Rick Dufour and his associates (Dufour & Eaker, 1998; Dufour, Eaker, & Dufour, 2005) have made evidence-based inquiry into student achievement a reality in many schools and districts. However, change
cannot happen in a deep and meaningful way when it is forced, cajoled, or coerced. Fullan (2007) advised that teachers can be motivated to change through “deep engagement with other colleagues and with mentors in exploring, refining and improvement their practice as well as setting up an environment in which this not only can happen but is encouraged, rewarded, and pressed to happen” (p. 12). This is exactly what a learning community can do.

Schools that function as sustainable learning communities give educators permission to be learners themselves, allowing them to reflect on their practice and take risks in order to put new ideas into practice (Mitchell and Sackney, 2009). In addition, teams of teachers inquiring in PLCs are focused on results, creating an environment where “student achievement becomes the work of everyone in the school” (Dufour, Eaker, & Dufour, 2005, p. 31). Collaborating teachers choosing to focus on a meaningful problem they have identified themselves feel supported, empowered, and able to take risks in the quest of improving student outcomes.

The Network as a Nested Learning Community

In British Columbia, one of the most successful, effective, and widely distributed learning communities has been created by NPBS (2008), which has recently been renamed Networks of Inquiry and Innovation (NOII) (2012). The Network was created in the year 2000 with a focus on improving education through “inquiry, teamwork across roles, schools, and district, and a concentrated focus on applying coaching forms of assessment to assist learners to take greater ownership of their learning” (Kaser & Halbert, 2012, homepage). When I first joined in 2004, I unknowingly became part of a rich learning community both at the school level and provincially. To be part of the
Network and receive a grant to support their inquiry, teachers had to develop an inquiry question based on an area of need in their own school. Teachers were also expected to share their learning with partners in other schools and focus on formative assessment, using the BC Performance Standards, to demonstrate the impact of the strategies they were adopting on student achievement. Members were required to attend at least three meetings a year, where they collaborated and shared their progress with other Network members at the school, regional, and provincial levels.

Now, in 2012, I believe that my long-term involvement with what is now NOII has given me the knowledge, skills, and support needed to transform my teaching from a practice based solely on assessment of learning to one that is based on assessment for learning. In my own experience, confirmed in the experience of countless colleagues as well as in the literature, instead of teachers feeling isolated and stuck, inquiry in NOII teams has provided trusting relationships, a common purpose of improving student learning, and a way to move forward to make change together.

**Inquiry**

It can be a daunting and intimidating process for teachers to attempt to change their practice. However, when teachers approach a change through an authentic inquiry question that is meaningful to them, particularly with collaborative support, their fear of failure appears to be reduced. Change presented as inquiry allows teachers to admit that they do not know what the answer may be. It allows them to put aside ego and expectations and become learners. And it allows them the discretion to adopt, refine, or reject innovations that others have recommended. Hargreaves and Fink (2006) recognized the new learning process required in a knowledge society: “It involves
developing deep cognitive learning, creativity and ingenuity among students; drawing on research, working in networks and teams, and pursuing continuous professional learning as teachers” (p.3).

How can educators begin the daunting task of educational reform? I know from experience that choosing to embark on an inquiry question with the support of a committed professional learning community can empower teachers to make profound changes within their practice. Within this perspective, questions and challenges are mysteries waiting to be solved, which in turn motivate teachers to pursue new and innovative solutions to these educational challenges (Mitchell and Sackney, 2009). When inquiry is authentic, meaningful, and internally driven, teachers can make sustainable changes to their practice that will have impact in the classroom.

Chapter Summary

In this literature review I have made explicit the literature that has informed a transformation in my teaching practice and has become a foundation for the teachers’ resource that I have created. Research in the areas of educational reform, deep learning, formative assessment, professional learning communities, and the inquiry process has given me insights as to the pedagogical content and the professional learning processes for translating theory into practice. These bodies of work have helped me to combine literature and research-based information with classroom experience to develop the craft knowledge of a professional teacher. However, I understand that this knowledge will not be compelling if it is merely transmitted to other teachers – it will contribute more productively to change if presented as a starting point, with an invitation for teachers to construct their own craft knowledge through inquiry as to the relevance and importance
of this knowledge for their students. Thus, the resource I have created may help educators examine their own practice, ask their own questions, make their own decisions, and embark upon their own journeys into more satisfying and productive teaching.
Chapter III: Method

My intention in designing a teachers' resource is to help educators traverse the road to meaningful change in their classrooms through the use of inquiry into the effects of new thinking and new strategies. As a result of formative assessment and deep learning innovations in their own classrooms, they may empower their students to become owners of their learning and to improve their achievement and life options. Classroom changes will help move schools from sorting to learning systems, where the belief that every child can learn becomes evident in student responses. This goal expresses the moral purpose of the NOII mantra, which reminds teachers to envision every learner walking the stage “with dignity, pride and options” (Kaser & Halbert, 2011, p. 6).

However, change occurs as a mixture of facts and inspiration, practice, and beliefs, and it is difficult if not impossible to create lasting change in practice if there has not been a change in beliefs (Fullan, 2007). Therefore, in the teachers' resource, I have shared the information and experiences that resulted in the changes that took place in my practice and the corresponding change in my beliefs. I have provided background as to why educational transformation is imminent and important and what this change may look like in secondary English classrooms.

In this chapter, I describe the components of my qualitative bricolage, the intentional combination of a variety of qualitative research methods. Specifically, my approach can be identified as professional inquiry, which draws on action research and reflective practice traditions (Brown & Cherkowski, 2011), and in this case has a focus
on innovation and design. I present my research questions and describe my data sources. Finally, I provide an overview of the teachers’ resource.

**Overview of Research Method**

In keeping with my experience as an inquiry-minded educator, I have developed an inquiry approach to creating the proposed teachers’ resource. My approach is a qualitative and reflective type of *professional inquiry* (Brown & Cherkowski, 2011), informed by the concept of *design research* (Collin, Joseph, & Bielczyzc, 2004), to make explicit the development of my *craft knowledge* (Burney, 2004). This inquiry culminates in a product – a resource for teachers. The process of creating this resource has involved meta-cognitive reflection on my own learning, selection of the most meaningful processes, and presentation in a format meant to support the learning of others. Kaser and Halbert (2009) identified reflective inquiry as an important leadership task that I believe can be formalized as research:

> Reflective inquiry encompasses both effective inquiry strategies including systematically collecting and interpreting data, and reflective activities, such as monitoring, periodically evaluating progress and revising plans. Reflective inquiry draws attention to connecting meta-cognition and curiosity in the context of solving open-ended, ill-structured problems. (p. 74)

In this case, the ill-structured problem is how to support the development of other inquiring professionals who will then be better prepared to support learners with diverse needs. Although previous cycles of inquiry have led me to unshakeable commitments to formative assessment and deep learning, I will analyze my own growth in terms of the developments that have been most meaningful and the catalysts that have had the greatest
INQUIRY FOR DEEP LEARNING

impact. Thus, I have connected my curiosity with meta-cognition to reflect and select components, and with imagination to design the new resource and envision its impact.

**Focus Questions and Data Collection**

Two questions that have focused my thinking as I engaged in this inquiry were:

a) *What is the essential knowledge that I want to share with teachers?* And b) *How can I share it in a way that will inspire others to engage in inquiry as they apply it and make their own meaning in the own classrooms?* The data that I collected to answer these questions was gained through reflection on the development of new teaching strategies and beliefs in my own practice, as evident in examples and written reflections. My analysis of the data is evident in the resource design and is further articulated in a final reflection, along with the commitments that have emerged for me from this latest cycle in my spiral of inquiry.

**Professional Inquiry**

Brown and Cherkowksi (2011) proposed a scaffold for action-based professional inquiry or experimentation in teaching, with four stages in the inquiry cycle: *Wholeness, Awareness, Meaning,* and *Commitment.* I adapted this cycle to retrospective reflection or *reflective inquiry* (Kaser & Halbert, 2009) on the curriculum and assessment materials that I have created and the growth that I have experienced over the last eight years. The *Wholeness* of my current vision for teaching has been outlined in chapters one and two, as I framed a problem of student disengagement with learning and drew on a body of literature for a solution. The *Awareness* stage involved reviewing my learning and classroom applications to identify the key understandings that I wanted to share. The entire process of reflection and design brought *Meaning* to my own learning and modeled
an approach for other teachers to create meaning in their practice in a similar way.

Finally, the process brought new *Commitments* to my teaching and teacher leadership practice that emerged from the deep beliefs or convictions that I developed as a result of my retrospective reflection and resource design.

**Design Research**

In the 1990s there was a movement in educational research to develop a new methodology for carrying out studies of educational interventions under the labels "design experiments" or "design research" (Collin, Joseph, & Bielczyz, 2004, p. 1). Design research was developed as a way to carry out research to test and refine educational designs based on knowledge that was derived from prior research. Much like formative assessment, where the intent is to inform learning during the process of learning, design research is formative research where the intent is to inform the research during the process of research. This method has some specific benefits: it allows educational researchers to advance understanding by testing and refining theories, essentially putting theory into practice; and theoretical questions can be explored in the context of the classroom environment rather than an artificial or contrived context. In my understanding, this aspect of design research is similar to action research or action-based professional inquiry. In this inquiry, the classroom experimentation and reflection has occurred over the past eight years and is now informing my retrospective reflection.

However, design research also enables researchers to move beyond previously established measures of learning into new territory and this is the creative aspect of the method that I find compelling. By designing a teachers’ resource, I will attempt to advance my understanding of formative assessment and deep learning as content and
inquiry and professional learning communities as process, in order to continue to develop my practice and model change for other teachers.

Benefits and Limitations of the Method

However, limitations to this method must be noted. Reflecting on my own teaching experiences, integrating my understandings, and re-designing them as a resource to inspire other teachers will have benefits but will not result in findings that are wide-spread or prescriptive. Any benefit will be in the degree to which my thoughts resonate with other teachers and guide or inspire them. The true merit of the resource design will be revealed in its use by teachers. However, a review by teachers is beyond the scope of this study, which focuses only on the design of the resource.

Planning

A key component of teaching is the planning that occurs in advance of lesson delivery in the classroom. Teachers learn that effective planning begins with the end in mind (Covey, 1989/2009) or has backward design (Wiggins & McTighe, 2005) that begins with the intended outcomes and then moves to the activities most suited to helping students achieve those outcomes. In light of this approach to planning, I began designing a teachers’ resource by focusing on my purpose in terms of the learning I hoped it would facilitate for teachers.

Through the knowledge and experience I have acquired as an educator, integrated with a solid research base, I have embraced changes that were born out of both new beliefs and new practices. In this inquiry and resulting teachers’ resource, I wanted to express that craft knowledge, to make it explicit and open to further inquiry by myself and others. In the resource, I wanted to share the journey that led to the changes in my
beliefs and the resulting changes that occurred in my practice, as a potential guide for others. It was important to describe how the NPBS advocacy of formative assessment challenged my previous beliefs and how its process of inquiry in professional communities led me to successful implementation – with life-altering results for myself and my students.

It was important for the resource to include examples of formative assessment and deep learning curriculum that empowered my students to become owners of their own learning. These curriculum examples could be based on data from the inquiries I completed for NPBS and the University of Victoria’s Certificate of School Management and Leadership Program (CSML). Student feedback and data related to levels of achievement gathered in these inquiries indicated that changes to classroom practice, specifically the implementation of formative assessment, had a positive impact on learning in my classroom. However, I also thought it would be important to provide an in-depth, personal point of view about how student ownership can be achieved when formative assessment and deep learning ideas are implemented. Finally, it was essential to include an invitation for teachers to become active participants in the learning process and engage in their own inquiries as they interacted with this resource.

When I first began constructing the resource, I thought my purpose would be to create a recount of my experiences with inquiry as accurately and as thoroughly as possible. I soon realized that I could not do this without allowing my own voice to shine through. I decided to use a narrative, personal voice and to include the emotions I had experienced while engaging in the inquiries because without my emotional experiences, the resource would not be thorough or accurate. Teaching is a highly personal action, in
my opinion, and the decisions teachers make are often based as much on emotion as they are on theory and experience. I had intended to feature student work samples and student voices but I realized that this resource is actually a teacher-centred product rather than a student-centred one. My inquiries were all designed to improve student learning; however, the prime focus of the resource is actually on the teacher’s journey through the process of change. The driver of change is a teacher’s desire to improve student outcomes and so the purpose of this resource is to help initiate and support change in the behaviour and thinking of teachers.

This realization helped me decide on the structure of the resource. I provided many examples of my own personal experiences, illustrating why I wanted to make changes in my teaching, what changes I wanted to make, and how I went about making those changes. These authentic and honest examples were also intended to show how difficult and tumultuous change can be for educators. I wanted to give teachers the theory behind the change in my belief and practices, and then give them examples of what this looked like in my classroom. I hope this would move educators to embark upon their own journey into inquiry rather than just emulate what I did.

The act of creating this resource allowed me time to reflect on my previous inquiries, and this reflection deepened my understanding of my craft. It also sparked my curiosity for future inquiries. It allowed me to continue my involvement in the spiral of inquiry and lead the way to my next wave of learning and my next inquiry (Halbert, Kaser, & Koehn, 2011). As a result, I was able to continue my journey as a learner and create new personalized learning goals for myself. The cycle of inquiry continues as my previous learning sparks the idea for my next inquiry. As a learner, I am able to own my
learning and determine my own learning path by exploring topics that are meaningful to me and then sharing my discoveries in my own voice.

Overview of Resource

_A Journey to the Frontiers of Deep Learning_ is organized into nine chapters. Chapter one explores the reasons for changing the current model of education in British Columbia, focussing on the needs of learners in the 21st century. The second chapter explains how professional learning communities and inquiry help educators make meaningful and lasting changes in their classrooms. The third chapter goes deeper into the inquiry process and introduces my experiences engaging in inquiry. Chapter four and five give the rationale for why formative assessment and deep learning opportunities are necessary to increase student achievement and engagement. In chapters six, seven, and eight, I provide an in-depth account of three inquiries I conducted that have made the greatest impact on me as an educator. Chapter nine provides final reflections and what my next step is as an inquiry-minded educator. The creation of this resource has forced me to look closely at both my past and my current practices and beliefs and allowed me to think deeply about where I want to go next. I want to help other educators make changes in their practice using inquiry, but I now realize that I need to be patient with the process and resist the urge to tell teachers what to do and how they must do it. As I have experienced, real change arises when a new idea is met with the proper support, structure, and opportunity. It lasts when is proves to be successful. I look forward to carrying on my journey walking alongside other educators.
PART II

A JOURNEY TO THE FRONTIERS OF DEEP LEARNING
Introduction: My Wake Up Call

I remember very vividly the day I knew that the current educational system was profoundly flawed. It was my first year at a secondary school, and I was teaching Humanities 8. I had two Aboriginal boys in my class, Myles and Warren, who were well known to the teaching staff and deemed to be significant behaviour problems. My moral purpose has and always will be based on the belief that all students can learn, all students can improve. I also strongly believe that relationships are key in the learning process. As a result, I worked very hard to build a positive relationship with these students and I believed that I could improve their motivation and achievement in my class. In the beginning, my efforts seemed to pay off. They started attending regularly and even began to participate in lessons.

My rude awakening came when it was interim time. Teachers are required to give students a grade at interim time so that they may know how they are doing in the course. Although these two students had improved markedly in both attitude and skills, they still were not passing. I fretted and worried about what to do. I couldn’t lie about their standing, yet I knew that an interim mark would have a negative impact on these boys. I decided to give them both a C-. I had a sinking feeling in my stomach as I passed out the grades. I will never forget the looks on their faces when I gave them their marks. I tried to explain that this mark didn’t matter, but my words were lost on them. Myles balled up the paper and threw it on the floor, cursing. He then got up from his desk and walked out the door. Before I could stop Warren, he too left the classroom. I never saw them again. Although I realize that there were other factors contributing to Myles and Warren leaving school, I can’t help but think of that day. The system forced me to rank
these two boys, crushing their ego and demolishing their motivation. Instead of focusing on the gains they had made and on what they could do, the evaluation system that I was required to use featured only their failures. The current system of ranking students and forcing them into a “one size fits all” clearly did not work for these two boys. I knew then something was very wrong with our current educational system.

This resource is based on my experiences as a high school English teacher and inspired by students like Myles and Warren who deserved a better learning experience. I have joined other educators in British Columbia to ensure that our public school system focuses on improving the success of all of our learners. In the pages of this resource, you will share my journey to deep learning for students through my own inquiry into formative assessment practices in my secondary English classroom. I will explore and share how I was able to use inquiry to make meaningful and sustainable changes in my beliefs and practice so that I was better able to meet the evolving needs of students like Myles and Warren. I invite other teachers to reflect on their own journey as educators and perhaps see my story as a starting point for their own inquiry into how classrooms and outcomes can be transformed. The first seven chapters provide the theoretical background into why I felt I needed to make changes in my pedagogy, how I was able to make changes, and exactly what those changes were. The last three chapters explore three inquiries that made the greatest impact on me as an educator and also demonstrate the diverse and personal nature of the inquiry process.

My beliefs were strongly influenced by the work of the Network of Performance Based Schools (NPBS), now known as the Network of Inquiry and Innovation (NOII) and widely known by educators throughout the province as simply the Network. The
Network encouraged educators to use inquiry and collaboration as a way to initiate change in their practice. Linda Kaser and Judy Halbert are the cofounders of the Network. They are motivated by their belief that the way to improve the success of all learners is by raising student motivation and achievement (2009), and a powerful way to do that is by using formative assessment to encourage students and show them how to build on their strengths. In my secondary classrooms, I have seen how formative assessment helps teachers put learning, not grades or marks, at the heart of teaching and gives students ownership over their own learning.

This resource is not a blueprint or magic bullet for improving student success. Increasing student achievement and motivation depends on many factors and is highly influenced by context and the personal beliefs of educators. This resource does, however, document how and why my beliefs changed and how my practice changed along with them. Inquiry for me was the springboard for change, and so the aim of this resource is to encourage other educators to engage in an inquiry of their own. Professional inquiry begins when teachers question our current beliefs, think critically about our practice, and re-ignite our own curiosity. The next step is to create a purposeful plan of action and put it into place in our classrooms. The final steps are reflecting on what we have learned and sharing our new understandings with other teachers.
Chapter 1: The Need for Meaningful Change

I am one of many teachers in BC who believe that the traditional approach to teaching may no longer be relevant for 21st century learners and needs to undergo significant changes. The industrial model that was the blueprint for public education for almost 100 years is not working for many of our students. In the 21st century, skills such as critical thinking, problem solving, and collaboration have now become essential in order for students to navigate successfully in a knowledge-based society. Instead of adhering to a fixed mindset where learning is often linear, static and imposed, educators are beginning to embrace a growth mindset where learning is fluid, dynamic, and organic. With this new mindset, efforts are being made by many educators to align their practice more closely with the current needs of today’s students.

I have been an educator in British Columbia’s public education system for fifteen years, teaching at both elementary and secondary levels. For the last eight years, I have taught English to students from grades 8 to 12. During this time, I have seen how disconnected our traditional system has become from the reality of our students’ lives and indeed, the reality of the world outside school. As Kaser and Halbert (2009) have asserted, our students live in a “new knowledge world and have access to information, ideas, and social connections unimaginable a few years ago” (p. 11). The skills and knowledge students need to succeed are vastly different from the skills and knowledge their parents needed a generation ago. However, instead of creating minds that are capable of critical thinking, questioning, and innovation, minds that can take on the challenges and opportunities of the 21st century, it appears that many students in our current system are learning only to jump through hoops, memorize facts temporarily, and
“play the game” so that they can leave school and move on with their lives. I hope you will join me in attempting to change this model so that education becomes more relevant and meaningful for a greater number of students.

Despite the efforts of the best teachers, our current system does not always put learning first or even students first because the system is driven by its own needs, not by the needs of its learners. Students are sorted and ranked based on how well they can play this game and navigate this institution; sadly, this approach to education doesn’t meet the learning needs of many students. In fact, many students leave school before they graduate because they cannot or will not conform to the standards of the current system. As a teacher, I became frustrated because of the limits imposed by the system and the fixed mindset that seemed to accompany it. Earl (2003) stated that students need “to not only possess competence and confidence in a broad range of areas, but also the tools to adapt to new knowledge as it comes along” (p. 4). I wanted to find a way to meet the diverse needs of my learners even if I was working in a system that could be confining and limiting at times.

The stakes of education have become too high to ignore. If students are not successful in school, everything from their quality of life to their life expectancy is impacted (Wiliam, 2008). Struggling students can overcome several limiting factors in their lives if they can graduate high school. Many teachers enter the profession with a powerful moral purpose to help students gain success, not only in school but in life. To strengthen this moral purpose, improving the success of all students also has significant benefits to society as a whole. How do we ensure that all students are able to achieve success in school? As mentioned previously, the best response, as proposed by Kaser and
Halbert (2009), is to raise the level and engagement and achievement of all students. However, changing long held teaching beliefs and practices to accomplish this task is difficult, arduous, and at times frustrating. The question that change-oriented teachers struggle with is, *How can we as classroom teachers change what we do inside the classroom to meet the changing needs of our students?*

I have seen for myself how traditional educational systems and practices can have negative impacts on student motivation, engagement, and outcomes. For bright and motivated students, learning can be limited by a ceiling that is part of life in the current school system – once a desired mark is achieved, why go beyond? Struggling learners may be unmotivated to succeed in a system where they have already settled to the bottom – why should they care now? Earl (2003) explained: “when people constantly fail, they lose their motivation to learn and go to great lengths to avoid the pain of failure” (p.37). Disengagement runs rampant in high schools as students when students feel that what they are learning will be of little use to them once they leave. Truthfully, I have often agreed with them. Is it possible for teachers to make changes in our beliefs and practice so that can positively impact both engagement and achievement? I believe the answer is “yes”, because I have seen this change in my own classroom and in many classrooms, schools and districts around the province. These changes are deep and lasting when they reflect the genuine desires of teachers to learn how to change, supported by a province-wide community of colleagues engaged in similar inquiries. I have found that we do not need to wait for someone else to explore the terrain and provide us with a map for improving conditions in our own classrooms. I believe that this power lies within individual teachers. With the tools we need – an inquiry process and benchmarks for
noting student achievement – as well as the support and guidance of fellow teachers, we can be the explorers of this new frontier ourselves. We can be the innovators who will use formative assessment to guide students toward increased engagement and achievement.

Two prominent initiatives in educational reform hold out promise for school improvement: (a) the practice of formative assessment (Earle, 2003; Kaser and Haibert, 2009; Wiliam, 1998) and (b) advocacy for deep learning (Dumont, Istance, Benavides, 2010) both of which will be explored in more depth in chapters 4 and 5. To most classroom teachers, these initiatives appear intimidating and arduous to implement, particularly on our own. However, a shift of mindset that enables us to see opportunities instead of problems brings into focus an exciting frontier that invites us to become explorers and innovators. When teachers build their practice around formative assessment and deep learning, we will be better equipped to help students gain control over what they learn and how they learn it. In my own senior secondary classroom, I have seen a re-awakening of the curiosity and imagination that has seemed to drain out of students since elementary school. I know that students – and their teachers as well – can be energized when students have choices about what and how they will learn and how they will demonstrate their learning. I have seen students transition from passive bystanders in their own learning process to active participants driving their education, in a true partnership with their teachers. I want to invite you to share in this journey and see for yourself how the process of education can become relevant and meaningful for your students and for you.
Chapter 2: Achieving Change Through Professional Learning Communities and Inquiry

Many teachers want to provide the best education they can for their students and many recognize that the current system needs to be transformed. Many even know what changes they would like to make; however, the chasm between knowing and doing can be profound. Wiliam (2008) recognized how difficult it is to change ingrained behaviours even when teachers have compelling reasons to change them. He asserted that “the crucial thing is to change habits, and traditional teaching structures do not change habits” (p. 14). How can teachers change these ingrained behaviours? Fullan (2007) believes that teachers can be motivated to change through “deep engagement with other colleagues and with mentors in exploring, refining and improvement their practice as well as setting up an environment in which this not only can happen but is encouraged, rewarded, and pressed to happen” (p. 12). This is exactly what a learning community can do.

A professional learning community is a group of educators coming together with a common vision focused on improving the learning of their students. There is strong collegial trust as members must become vulnerable and expose their practice, as well as take risks in the pursuit of change and improvement. In these small groups, each member develops a specific plan for what he or she wants to change in his or her classroom practice. The groups meet regularly to support team members in carrying out and refining their plans (Mitchell and Sackney, 2009). Professional learning communities give educators permission to be learners themselves, allowing them to take risks and try new ideas while reflecting on the outcomes (Mitchell and Sackney, 2009) and adjusting the
new practices to achieve more desirable outcomes. Professional learning communities are focused on creating results in an environment where “student achievement becomes the work of everyone in the school” (Dufour & Eaker, 2005, p. 31). Ideally, teachers feel supported, empowered, and able to take risks in the pursuit of improving student outcomes.

In British Columbia, one of the most successful and effective learning communities has been created by the Network of Performance Based Schools. The Network was created in the year 2000 with a focus on improving education through “inquiry, teamwork across roles, schools, and district, and a concentrated focus on applying coaching forms of assessment to assist learners to take greater ownership of their learning” (Kaser & Halbert, 2012, homepage). When I first joined in 2004, I unknowingly became part of a rich learning community both at the school level and at the provincial level. I believe that my long-term involvement with the Network has given me the knowledge, skills, and support needed to transform my teaching from a practice based solely on assessment of learning to one that is based on assessment for learning. In my own experience and confirmed in the experience of countless colleagues as well as the literature, instead of teachers feeling isolated and stuck, inquiry in professional learning communities has the potential to foster trusting relationships. As Network members, our common focus on the needs of students allowed educators to come together and make meaningful changes in teaching practice.

Personally, I have found that there is something empowering about inquiry for an educator. We give ourselves permission to be curious, set aside time to engage in learning conversations with colleagues, and take possession of the latitude to use our own
professional judgement and choose our own learning path. Our inquiry questions are borne out of what we see as the unmet needs of our students. We give ourselves the power to determine our own course of action because we get to create our own questions. At the first Network meeting of the year, educators come together to share their ideas, reflect on their practice, and create a question of their own to explore. During the course of the year, interventions and new practices take place in the classroom. A mid-year regional Network meeting gives teachers another chance to share and reflect on their work and then refocus using the new insights and ideas gained by their colleagues. At the end of the year, each small group of Network members tells the story of their inquiry at a regional Network celebration. These celebrations of learning are poignant and profound, for what is celebrated is multi-faceted. We celebrate the successes of our students, the deep learning we have gained, and the new relationships we have formed. Regardless of current tensions in the province or in local school districts, the Network celebration creates a feeling that together, teachers can make a difference and improve learning for all of our students.

At the Network Celebration in 2010, a team from a remote First Nations community called Hartley Bay made the journey to my community. They created an inquiry for the Aboriginal Enhancement Schools Network, a sister network to NPBS, created in 2008 to focus on locally developed Aboriginal enhancement agreement goals and encourage educators to explore new ways of developing cultural understanding. After a float plan ride and a five hour drive, our guests from Hartley Bay arrived and set up a display to showcase their inquiry. As they shared their story, my colleagues and I were touched by their commitment to their students and impressed by the depth of their
Their inquiry was focused on the impact of traditional First Nations methods of teaching and learning, including students teaching their skills to others. The teachers explained that they wanted their students to become active owners of their learning and pass their skills on using a variety of methods within the traditional Tsimshian teaching methods of observing, imitating, mastering, and teaching. When they embraced the local indigenous ways of knowing, they discovered a marked improvement in both student engagement and academic achievement. Subsequently, this inquiry inspired and challenged many other Network educators, myself included, to think differently about the potential impact of new teaching approaches. It was an honour to bear witness to the success of the Hartley Bay inquiry and learn from those within my learning community.
Chapter 3: Inquiry-Mindedness as a Way of Life

It is important to understand that inquiry is a complex process that takes time and deliberation. However, in order to take the first steps, all you need is curiosity and a willingness to take a risk. As teachers gain more experience and knowledge about inquiry, their inquiries often become deeper and more sophisticated. My own experience supports this. My more recent inquiries are considerably more thoughtful and complex than my earlier ones. Like any skill, inquiry takes practice. I encourage teachers to work together so that they can be sources of support for each other. For me, the Network of Performance Based Schools was a nested professional learning community that continued to support me on my journey to deep learning, for both me and my students.

Network inquiry projects were structured so that collaboration was an essential part of the learning. Earl and Timperley (2008) acknowledged the link between collaborative inquiry and the development of a community where professional growth is ongoing:

Conditions for improving learning and teaching are strengthened when teachers collectively question ineffective teaching routines, examine new conceptions of teaching and learning, find generative means to acknowledge and respond to difference and conflict and engage actively in supporting one another’s professional growth. (Earl & Timperley, 2008, p. 124).

It can be a daunting and intimidating process for teachers to attempt to change their practice. However, when teachers approach the change as an inquiry question, particularly with collaborative support, their fear of failure may be reduced. I know from experience that embarking on an inquiry question with the support of a professional
learning community can empower teachers to make profound changes within their practice. When inquiry is authentic, meaningful and internally driven, it may help educators make real changes in their practice.

The term “spiral of inquiry” is the title of an article by Network leaders Judy Halbert and Linda Kaser, in collaboration with a teacher leader who has been active in the Network, Debbie Koehn (Halbert, Kaser, & Koehn, 2011). The spiral of inquiry (see Figure 5) offers teachers a guide for self-reflecting and examining their current practice. Educators assess the learning needs of their students and hone in on a skill they want to develop. They create an inquiry question designed to explore how the specific intervention they have chosen may impact student learning. Built into the inquiry process are opportunities to gain new knowledge, develop new ideas, and put those ideas into practice. The inquiry process also has built-in accountability because data is gathered throughout the inquiry to determine what impact the intervention had on the learning of students.

Figure 5. The Network of Inquiry and Innovation Spiral of Inquiry. (Halbert, Kaser, & Koehn, 2011). Reprinted with permission.
The spiral of inquiry has now evolved to better assist schools to create and sustain greater quality and equity for their learners (Timperley, Kaser & Halbert, 2012). The spiral model now includes the key stages of scanning, focusing, developing a hunch, engaging in new professional learning, taking new professional action, checking that a big enough difference has been made — and then taking the time to consider what is next. The spiral begins and ends with the three questions: 1. What is going on for our learners? 2. How do we know? 3. Why does it matter? This process gives enough freedom for participants to nurture their curiosity and creativity but provides enough structure to make sure that clearly defined learning goals are addressed. At its core, inquiry is designed to improve learner outcomes, empowering both the learner and the educator.

Professional inquiry in education often focuses on improving learner outcomes, but it is highly personal and context driven. In order to understand how inquiry empowered me to make changes in my practice, it is important to identify my context. I started out in education as an elementary school teacher in 1998, and for the first five years of my career, as a teacher with very low seniority, I bounced from one temporary position to another. I taught everything from kindergarten to grade six, special education to Aboriginal education. Like many beginning teachers, I was keen, eager, and up for any challenge, but because I never spent more than one year in any position, I spent all my time and energy keeping my head above water, just trying to get through the curriculum. In my mind, teaching was all about curriculum.

In my sixth year, I decided to make a change in my career. I went from teaching elementary school to teaching at the high school. I accepted an English position at Smithers Secondary School, a school of about 1000 students that served our community.
That year was a challenging year for me, not only because of the adjustments necessary for a new school and a new job. I had over-limit classes, taught each class in a different classroom and also had many students with behaviour and special needs. It didn’t take long for me to realize I was over my head. This compelled me to look for professional development opportunities in order to learn the skills I was so desperately lacking. Luckily, I was thrown a lifeline in October when my principal invited me to my first Network of Performance Based Schools meeting.

At first, I thought the Network of Performance Based Schools was a group of teachers learning to use Performance Standards, which were assessment tools created by the Ministry of Education. I soon realized it was much more than that. The Network is a movement, an organically grown network of educators who choose to come together to improve their practice so that the learning of their students will improve. Network meetings provided me with information about how formative assessment can transform classrooms from merely sorting students to places of true learning. I realized that I didn’t have to be embarrassed about all I didn’t know as an educator because I was a learner as well. I was given permission to admit I didn’t know everything and the confidence that I could do something new, something better. I learned that the process of inquiry coupled with collaboration could help me make the changes I needed to make in a way that was non-threatening and supportive.

That year I began my first inquiry. I began by exploring an area that was new to me but one I felt would improve the learning of my students. It marked the beginning of my journey into formative assessment and towards deep learning: Will students reading for information improve if they are taught to self-assess using the BC Performance
Standards? The pursuit of this question helped me become familiar with performance standards and allowed me to make learning more explicit for my students.

That inquiry had students working in isolation. For my next inquiry, I wanted students to be learning and teaching resources for each other. This time I collaborated with a colleague and together we created the inquiry: If students are taught the skills to discuss text in meaningful ways, will their ability to infer improve? Students were explicitly taught questioning and inferring skills and how to engage in rich conversations with their peers.

The relationship with my colleague became a very rich learning relationship, and together we developed our next inquiry exploring an area that sparked our curiosity and ignited our moral purpose: Will consistent positive and personal interactions with Aboriginal students and their families have an impact on student success? We developed this question because we saw a need that was not being addressed in our classrooms. We wanted to improve the learning of our Aboriginal students. This inquiry is explored in more detail in chapter 6.

Again, this inquiry again moved me along in my journey towards deep learning. The next year I partnered with a colleague at another school, and we decided to explore the idea of peer coaching. The previous inquiry showed me the importance of relationships between students and teachers. I wanted to explore how to create meaningful coaching relationships between multi-aged students. As a result, this lead to the creation of the question: How will secondary students coaching elementary students, using the 6 + 1 Traits of Writing, impact the writing results of both students, as assessed
by the performance standards for narrative writing? This inquiry is explored in more depth in chapter 7.

Each of these inquiries allowed me to make real and meaningful changes in my beliefs and practices. Inquiry-mindedness had become a way of life for me. I am currently involved in my ninth inquiry and continue to learn as an educator with the support of the Network. Each year takes me further down the path towards my goal of improving the achievement and engagement of all of my students.
Chapter 4: The Power of Formative Assessment

In my own practice, I have seen that implementing formative assessment has helped me to personalize learning and invite greater student engagement or ownership. The emergence of formative assessment, or assessment FOR learning (Earl, 2003; Kaser & Halbert, 2009; Wiliam, 1998, 2007, 2011) helped me see that engaging and inspiring previously non-committed learners was possible. In the traditional education system, the focus is on instruction and teaching where assessment is mostly summative, used primarily for grading and reporting. Otherwise known as assessment of learning, summative assessment focuses on comparing students, giving feedback in the form of marks or grades, and then sorting and ranking the students based on marks and grades. By the time this is given to students, the learning has finished. Increasing student achievement and motivation requires moving to a learning system where the focus is on deeper forms of learning. Assessment is formative and used to provide descriptive coaching feedback and learner self-regulation (Halbert and Kaser, 2009). Formative assessment is ongoing through the learning process.

Judy Halbert and Linda Kaser (2009) adapted Wiliam’s work on the components of an effective formative assessment system (Leahy, Lyon, Thompson, & Wiliam, 2005) and developed the Six Strategies that Matter (see Figure 1). Halbert and Kaser imbedded the Six Strategies within a framework of four big ideas that served as guideposts for teacher thinking (see Figure 2). With collaboration in networked conversations, these strategies and ideas became the framework to support changed practice. With observation of the effects for students, they spread as deeply held teaching beliefs. A great deal of
research, confirmed in my own experience, suggests that formative assessment can help students become more engaged and successful in school.

The new practice of assessment for learning, its research-based promise, and its supported implementation in the classrooms of hundreds of inquiring BC teachers has made what might have been a naïve or idealistic dream into an achievable goal. The inquiry-based, innovative work of teachers in their own classrooms, connected to each other through the Network, has been instrumental in transforming hundreds of BC classrooms to places where learning and the needs of the individuals are more visibly and consciously the first priority. As these teachers have learned to practice formative assessment, their students have moved toward ownership of their learning (Kaser & Halbert, 2009). As Brown and Cherkowksi (2011) have explained, “learners who have achieved the ultimate goal, a sense of ownership, understand their unique strengths and needs and can routinely identify personalized goals” (p. 61). They have begun to experience the increased engagement that comes with personalized learning and with increased engagement comes higher student achievement. This is where we see the promise of sustained and meaningful change in education: inquiry can help teachers begin and continue the process of using formative assessment and deep learning as the foundation of their teaching.

The Four Big Ideas and Six Strategies That Matter became the foundation of my pedagogy. For the last eight years I have put those ideas and strategies into practice, developing and honing my ability to use formative assessment to improve the success of my students.
1. Provide learners with clarity about and understanding of the learning intentions of the work being done – this means that learners should be able to tell someone else in their own words what the learning intentions are and how they connect to life beyond school.

2. Provide to and co-develop with learners the criteria for success. This means that learners have clear criteria for quality and know what part they are aiming to get better at.

3. Provide regular, thoughtful feedback that moves learning forward for the individual learner. This means that, over time, learners get used to knowing how to improve.

4. Design and use thoughtful classroom questions to lead discussions that generate evidence of learning. This means that learners practice being ready to think and know that “no hands up” and individual responsibility for thinking about the question are regular parts of learning life. It also means that teachers work together ahead of time to develop really strong questions to use part way through a learning sequence.

5. Put learners to work as learning/teaching resources for each other. This means that learners know strategies and have internalized quality criteria so that they can be productive with their same age and older and younger learning colleagues.

6. Do everything you can think of to make sure that learners are the owners of their own learning. This means that learners are genuinely engaged in learning and confident that they can learn and think about their own learning.

Figure 1. The Network of Performance Based Schools *Six Strategies that Matter*. (Kaser & Halbert, 2008). Reprinted with permission.
1. Learner self-coaching through learning self-assessment is the goal of deep learning work.

2. Nimble and responsive teaching: teachers need to practice nimble and responsive planning and teaching to make formative assessment and learning a way of life.

3. Inquiry-mindedness as a way of learning life: inquiry-mindedness is using thoughtful strategies and then looking for evidence of deeper learning, is a necessity for learners, teachers, and leaders.

4. Learning for all through networks: because all teachers want to make a big difference for all learners – and especially those who are vulnerable – teachers need small networked communities of educators working together across roles and schools to get the gains for learners we need. Isolated efforts do not work for vulnerable learners. They need and deserve sustained and connected learning. Formative assessment is empowering for learners who need to get in on how the learning game works.

Figure 2. The Network of Performance Based Schools *Four Big Ideas*. (Kaser & Halbert, 2008). Reprinted with permission.

I saw evidence of how formative assessment can improve the achievement and engagement of students in my own practice. In 2008 I had been a member of the Network for four years. As a result, my confidence and my ability as a teacher had improved significantly. I was now the Literacy Co-ordinator for our school and taking on a teacher leadership role within our English department. This was largely due to the encouragement and mentorship I received as being a member of the Network and the collaboration I was experiencing with other colleagues. I felt I was having more and more success with vulnerable students while also meeting the needs of students who were bound for university. I believe that this success was largely due to my growing proficiency in the use of formative assessment and giving students more choice in how
they demonstrate their learning. These changes appeared to improve both student achievement and engagement. More students were attending my classes regularly, choosing to take my classes, and successfully completing my classes.

In 2008, my previous inquiries sparked an inquiry that focused on improving student ownership using formative assessment, specifically targeting the use of descriptive feedback instead of percentages when assessing student work. One of the dramatic changes I made was no longer using marks and grades in my English 12 classes. Instead, I gave descriptive feedback in a variety of ways. I used performance standards, checklists, rubric, achievement grids, and anecdotal comments. Luckily, I had the support of my administrative staff and the support of the Network behind me. I spent a great deal of time teaching my students about formative assessment and the research behind it. I explained how I wanted learning, not marks or grades, to drive what happens in my classroom. I prepared myself for some push back by the students and the parents and was very surprised when there was none. Instead of constantly hearing, “What mark did I get?” I began to hear “What can I do to get better?” That is what descriptive feedback can do. It doesn’t inflate or shatter egos, but keeps the focus on improving, no matter where the student may have started in his or her learning. When it came time for me to give out summative grades, there were no surprises. Students knew exactly the level at which they were achieving. I saw a direct correlation between my use of formative assessment and the engagement and achievement of my students. That is the power of formative assessment.
Chapter 5: The Importance of Deep Learning

My own experience and a strong research base suggest that educators may improve the motivation and achievement of students through deep learning and personalization. Deep learning has always been part of education but it has usually been limited to gifted programs or special academies. Deep learning is when the focus is not solely on content, but rather on the process of learning. Deep learning fosters critical and innovative thinking, problem solving, collaboration, flexibility, and creativity. It also incorporates more traditional academic skills such as effective oral and written communication and accessing and analyzing information. Many educators are now realizing that students need more sophisticated cognitive skills than the ability to remember facts in order to be successful in the 21st century. Content is still an important component in the promising practice of education; however, emphasis is now being placed on how to access content, how to deeply think about and understand content, and what to do with content once it is learned. Deep learning focuses on providing students with the skills they need to participate in a knowledge-based society while also allowing them to explore an educational path that is best suited to their interests, their capabilities, and their chosen future.

The importance of deep learning for every student is increasingly recognized by stakeholders in education, from researchers to classroom teachers. The Nature of Learning (Dumont, Istance, & Benavides, 2010) presents the work of leading researchers in North America and Europe who have identified seven key principles that optimize learning in classrooms and schools (see Figure 3). These seven principles are meant to guide the design of learning environments and "offer evidence-based signposts to
effective practice and the redesign of schools and classrooms” (Dumont, Istance, & Benavides, 2010). These principles capture the essence of what needs to be in place in order to provide students with deep learning opportunities. They demonstrate how many educational beliefs, practices, and structures must change in order to create deep learning.

1. Learners are at the centre.
2. The social nature of learning.
3. Emotions are integral to learning.
4. Recognizing individual differences.
5. Stretching all students.
7. Building horizontal connections

Figure 3. The Nature of Learning: Using Research to Inspire Practice Seven Core Principles for designing learning environments (Dumont, Istance & Benavides, 2010).

In addition to the theoretical world, there are other members of the educational community who also believe that deep learning will lead to meaningful change in education and improved student outcomes. The First Nations Education Steering Committee has recently published the First Peoples Principles of Learning (see Figure 4) which also captures the essence of other key aspects of deep learning and how it should look in our education system in the 21st century. These principles illustrate how the traditional, fixed, and impersonal nature of many secondary classrooms, where the focus is on content not learning, needs to grow and adapt to the needs of today’s learners.
Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits and the ancestors.

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness on reciprocal relationships, and a sense of place).

Learning involves recognizing the consequences of one’s actions.

Learning recognizes the role of indigenous knowledge.

Learning is imbedded in memory, history, and story.

Learning involves patience and time.

Learning requires exploration of one’s identity.

Learning involves recognizing that some knowledge is scared and only shared with permission and/ or in certain situations.

Figure 4. First Peoples Principles of Learning (FNESC, 2012)

Deep learning can positively impact the achievement and engagement of students by giving them the opportunity to build foundation skills such as inquiry, critical thinking, collaboration, and problem solving that address both the social and academic needs of students. Education needs to go beyond the mere acquisition of information. Instead of giving students what we feel they need to know, we should be “helping them develop supple and nimble minds, so that they will be able to learn whatever they need to” (Claxton, 2004, p.1).

Deep learning not only addresses the academic needs of students but their social and emotional needs as well. Deep learning understands that learning is a highly personal, context-driven phenomenon that relies on rich relationships for success. More
and more research is pointing to the importance of social and emotional development in students and its connection to deep learning. As Dumont et al. (2010) have asserted “learning results from a dynamic interplay of emotion, motivation and cognition... the emotional and cognitive dimensions of learning are inextricably entwined” (p. 321).

Although the 21st century may be marked with a reliance on technological breakthroughs, learners in the 21st century are not robots who merely require the appropriate input of data. A change in our mindsets as secondary teachers is necessary so that we more fully address the social and emotional as well as the academic needs of our learners.

It is important to note that inviting students to take a more active role in their education and making their learning more personalized does not mean we abandon the current educational system. Content and curriculum need not be thrown out like the proverbial baby with the bathwater. Education needs a broader base and we can do better than the “one size fits all” system we currently have. Foundational skills such as reading, writing, and arithmetic are still relevant and important; however, how we deliver this model has evolved. There will be more opportunities for self-initiated and self-directed learning where teachers are facilitators and co-learners. This will be achieved by giving students more choice in what they learn, how they learn it, and how they show their learning.

I was able to provide deep learning opportunities in my own practice by making significant changes that were inspired by the new ideas I had gained through learning about formative assessment. When I first began teaching senior English, I adopted many of the practices of the previous English teachers at the school. That meant you taught *King Lear* and *Lord of the Flies* in grade 11, and *Hamlet* and *1984* in grade 12. I always
loved literature and enjoyed these texts when I was in high school, so I didn’t think twice about using them in my classroom. I was two weeks into teaching 1984 when I became frustrated with my class. Over fifty percent had failed the last two quizzes. I used five comprehension questions for each quiz. The questions were not complicated. It was clear that the students were simply not reading the book. I asked a student who I knew was very capable why he wasn’t reading the novel. He replied, “I don’t like it. Why do I have to read it?” I explained that in Grade 12 students were expected to read varied and complicated texts and that I wanted students to explore the theme of dystopian societies. I asked him why he didn’t like the book. He replied, “It’s doesn’t matter to me. Can’t I read another book about that?”

That question stopped me. 1984 is not a required reading; in fact, there are no required readings in the English 12 curriculum. Why couldn’t he read another novel that covered the same learning objectives? I did some research and the next class we brainstormed all the novels we could think of that explored the theme of dystopian societies. We discussed which were appropriate and which were not in terms of content and complexity, and then students were able to choose the novel they wanted to read. The list encompassed over twenty novels. Of course, my quizzes needed to become more open-ended to encompass the different novels, but this resulted in deeper and richer questions. When I did give the next quiz, it was obvious that every student was reading his or her novel. They were able to choose a novel that fit their reading levels and interests but still covered the skills that grade 12 students were required to learn. After I understood the importance of letting students have some choice in what they learn, I began to explore what would happen if I let students choose how they showed their
learning. As a final assessment of the unit, I decided to abandon the tests and quizzes and allowed students to create a "product" that would demonstrate their learning. I shared my learning intention, the pieces that were necessary to meet the learning objective of the grade 12 curriculum – in this case they were based on reading literature- and then together we created the criteria for the assignment. Students had complete power and choice over their product.

The results were outstanding, especially for the students in my class who were struggling or disengaged. The kinds of products created were as diverse as each individual student. Some made movies while others created poems. Some created paintings and artwork while others chose narrative writing. Some still chose to do traditional questions and essays, but the key was that they had the choice. Choice and personalization, as the tenets of deep learning that increase student motivation, was evident in this case. This was a small change in practice that resulted in a richer learning opportunity for my students.

In the following three chapters I share my personal journey through the inquiry process by exploring three inquiries in depth that had the greatest impact on me as an educator.
Chapter 6: Inquiry for the Heart

During my third year teaching at the secondary school, I began feeling confident in both the use of inquiry and formative assessment. With the help of the Network of Performance Based Schools and the network of educators attached, I had new ideas, support and encouragement to keep moving forward with my goal of improving student motivation and achievement. At this time I began working closely with a colleague, another English teacher who became a critical friend — someone who challenged my thinking and pushed me into ground that was new and difficult. We decided to collaborate on an inquiry that year for the Network. Working with someone in my own school meant we could meet on a regular basis, discuss progress and challenges, and then problem solve together. This relationship gave me the courage to explore an area that I felt very uncertain about — Aboriginal education. I wanted to create an inquiry focused on meeting the needs of at-risk Aboriginal learners. I believed that in order to meet the needs of these learners, my focus had to go beyond their academic needs. I began to wonder about how relationships impact student learning.

Formative assessment and deep learning allows educators to go beyond the traditional literacy and numeracy skills that were characteristic of the 20th century focus on memorizing or traversing through content. In addition to sophisticated cognitive skills, formative assessment and deep learning also address social and emotional development in students. Learning environments that are built on formative assessment and deep learning are highly personal, context-driven phenomena that depend upon rich relationships for their success. More and more research is pointing to the importance of social and emotional development in students and its connection to deep learning.
addition to the research, my own experiences have convinced me that cultivating relationships based on trust and personal regard between teachers and learners will contribute to students becoming owners of their learning.

Together, Jesse and I acted as critical friends in an inquiry designed to help us better understand the needs of some of our vulnerable Aboriginal students. Our belief was that if we could better understand the needs of our learners, we could prepare ourselves to meet those needs more adequately. In our district at the time, thirty percent of our students were Aboriginal, and many were having difficulty transitioning successfully through the school system. With the learning mindset cultivated by the Network, Jesse and I were not ashamed to admit that contributing to Aboriginal student success was an area we knew little about.

Following the Network approach to inquiry, Jesse and I began to research the area of Aboriginal education. We were drawn to the work of Russell Bishop (2007), whose work explored Maori student success in New Zealand. He gathered information by interviewing several Maori students. I found it extremely powerful to hear students speak passionately about their own learning. I have often heard educators, researchers and policy makers speak about education, but I did not usually hear a student voice. The results of this study suggested that Maori student success was highly influenced by a classroom context where caring relationships can be developed to support learning. The impact of Bishop’s study had a significant impact on teachers in New Zealand; as a result, many embarked upon changes in their practice to better meet the needs of Maori students.
Jesse and I already believed that teacher-student relationships impacted student learning, but we didn’t know to what extent. Further, we did not know specifically how our Aboriginal learners felt about their own learning. As we considered our current practice with insights gained from Bishop’s (2007) study, we began to realize that we had not considered Aboriginal learners specifically in our teaching. Certainly, we cared about them as we did all our students, but it never occurred to us that their needs may be different than those of non-Aboriginal students. With this new information and set of beliefs, we created our inquiry question: *Will consistent positive, personal interactions with Aboriginal students and their families have an impact on Aboriginal student success?* (Davey & Krall, 2008).

Jesse and I created a plan for our inquiry. In very deliberate and explicit ways, we were going to engage in consistent, positive personal interactions with Aboriginal students and their families as a way to create trusting and authentic relationships. We wanted to see what impact this would have on student learning. We realized that we couldn’t use performance standards to measure the impact of our intervention on academic learning, as is typical for a Network inquiry, but we still needed a way to see if what we did made a difference. Again, we looked to the work of Russell Bishop. Jesse and I created interview questions for our Aboriginal students so that we, too, could gain their insights into their educational experiences. Our purpose was to illicit honest, unbiased information from our Aboriginal students on their experiences in school. We decided to interview our students at the end of the inquiry, after our focus on positive relationships had earned their trust.
At the beginning of our inquiry, we explored the relationship between Aboriginal students and families and the school by talking to our Aboriginal teachers and support staff. Built into our school culture were expectations and opportunities to connect with Aboriginal families. These included a night in the fall where parents were invited to meet their child’s teacher, and a “Sweat and Soup” night where school staff would travel to the nearby First Nations community to play floor hockey and have dinner with Aboriginal families. Few if any Aboriginal parents came out to the parents’ night, and very few teachers attended the “Sweat and Soup”. Jesse and I considered why these attempts at connecting with Aboriginal students and their families had failed. We realized that many Aboriginal parents had negative experiences with schools and teachers in their past; as a result, they did not feel comfortable entering the school. We also realized we would have little impact at improving teacher attendance at the “Sweat and Soup” night.

Consequently, Jesse and I decided to create alternate opportunities to connect with Aboriginal students and their families.

Jesse and I attempted to find ways to make regular, positive connections with students. We carved out time every day to talk to our Aboriginal students one on one. We started by asking them about their interests and what they did outside of school for fun. We paid attention to the books they read, the music they listened to, and the sports they played. In addition, we sought out opportunities to connect with them outside our classes. We would look for them in the hall, by the bus stop, in the gym, and in the All Nations room. At first, the conversations did seem halted and scripted, many students choosing to answer the questions with one word answers. However, as we persisted, the conservations became more natural and fluent and authentic relationships began to
emerge. Sometimes our conversations touched on academic progress, but despite how the students were doing in class, Jesse and I kept all of our contacts positive. We were careful to respect students’ privacy and space, but we were determined to create as many positive interactions as we could. In time, some students began to respond to our efforts and engage actively in conversations. We saw more and more smiles and less awkwardness and discomfort; however, it wasn’t until we interviewed the students that we truly understood what they thought about their school experiences.

During the course of the inquiry, we were careful to be respectful of the cultural beliefs of our Aboriginal students. We spoke to our District Aboriginal Principal and our Aboriginal liaison worker to make sure we did not inadvertently offend our students. For example, we learned that some Aboriginal students were uncomfortable looking adults in the eye because they believed it was a sign of disrespect. Instead of standing opposite these students, we stood shoulder to shoulder. It was a small gesture that seemed to mean a great deal to these students. We also understood that our community was home to many different First Nations, each with their own unique history and set of beliefs. We recognized that Aboriginal learners are all unique, even those who shared a similar cultural background. As with all learners, Aboriginal learners responded to an education that is personalized.

As the inquiry moved forward, I began making contact with the families of our Aboriginal learners. In mid-September, I began to call family members at home after school. Some of the phone numbers were available through school records, but in some cases we had to rely on our lead Aboriginal support worker to find out where students were living. In some cases, we asked students how we could contact their family. Some
students lived with their mothers or fathers, but some also lived with uncles and aunts, older sisters and brothers, and grandmothers and grandfathers. At first, it was intimidating making these phone calls because of some of the complex family situations—we weren’t sure what the reaction would be. I was nervous and wanted to make sure I was conveying a positive message. I introduced myself and invited them personally to the upcoming parent/teacher night. I spoke highly of the student and kept all communication positive. My calls were met with a variety of responses. Some of the family members who answered my calls were surprised and pleased, others showed little or no response, and still others were cold and short. The next round of phone calls was easier to make. I called at least twice a month and gave the families updates on what we were learning in class. During interim and report card time, I focused on the positive and kept negative comments to a minimum.

I believe that by the end of the semester, most families felt comfortable with my phone calls. Conversations lasted longer and did not feel as forced or halted. People were also starting to ask me questions about their child’s learning. I felt privileged to be granted a window into each student’s home life. This knowledge informed my teaching and allowed me to adjust my practice, making me more sensitive to some of the challenges my students were facing. I did not change expectations or lower standards, but my expectations became more flexible. For example, if I knew a student had a difficult weekend, it made sense to give him or her extra time to complete homework. If I knew that a student had trouble finding a ride into town in the morning, I would address it in a private manner and be careful not to draw attention to the situation. In addition, I became
more aware that many students, not just our Aboriginal students, were facing challenges in their personal lives and sometimes needed compassion and leniency.

During the course of that semester, I noticed that Aboriginal students began to contribute more to classroom conversations, attend class, and complete assignments more regularly than they had in the first month of class. I believe that they experienced an increase in student engagement because they felt they were welcomed, respected, and cared for members of our school community. However, if Jesse and I wanted to know whether our efforts to create positive and personal relationships with our Aboriginal students and their families had impacted their success as students, we needed to ask them. We wanted to hear their ideas and stories in their own words. Toward the end of the inquiry, we interviewed each Aboriginal student to ask three open-ended questions:

1. What sorts of things hold you back in school?
2. What helps you do well in school?
3. If you were able to coach a teacher so that what the teacher did meant you would do well in school, what would you say to them?

Student responses to the question about what held them back in school, included

- if I don't understand and can't get help
- Talking to my friends in class
- Teachers don't respect you
- Sometimes (teachers) don't teach you what you need to learn

A common theme among students was that they believed that negative relationships with teachers inhibited their success. Negative relationships were described in a variety of ways, such as feelings of not being liked by teachers, not getting along
with teachers, not understanding expectations, and not being engaged by lessons. Students also recognized how their own behaviour was holding them back. They understood that skipping class, arriving late, or talking in class contributed to their negative relationships with teachers and affected their learning. Clearly, students considered social relationships to be crucial to their success.

Sample responses to the question about what helped the Aboriginal students do well in school included:

- *My Dad encourages me, tells me how proud he is – without him I don’t think I would be this far*
- *I work better with a partner*
- *Really, really nice teachers who are joyful*
- *Teachers who are happy to see students*

Student responses revealed that social connections with both their friends and their teachers help them do well at school. Positive relationships with teachers that made students feel comfortable, welcomed, encouraged, and respected was a common reoccurring thread. Students also recognized that certain educational structures helped them do well in school such as opportunities for extra help, clear expectations, and fun and innovative lessons.

When we asked about how students would coach teachers to help them succeed, they responded:

- *Have more activities rather than book work*
- *Always be respectful to students*
- *Treat everyone the same*
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- Make things fun
- More jokes less quizzes
- Teachers need a good sense of humour
- Be attentive to everyone
- Listen to what kids have to say

Once again, our students were telling us that positive social relationships between teachers and students impacted their engagement and achievement. Many students suggested that teachers who are encouraging, understanding, respectful, and who listened to students make a difference. Other themes emerged from their responses. For example, many students gave the advice that teachers should make classes as fun, interesting, and culturally relevant as possible. Suggestions included more hands on activities, more opportunities for Aboriginal literature, art and language, and more jokes and fun in classes. Clearly, our students were telling us that it is important to attend to both the social and academic needs of students, even at the secondary level.

Jesse and I were able to make some key observations after analyzing the responses of our Aboriginal students. First of all, it was clear that students believed healthy social relationships with teachers impacted how well they did in school. Students had personal and diverse interpretations of the social relationships they have at school, which made it difficult to identify specific reasons that relationships with teachers were often seen as negative. In addition, their desire to have fun and feel welcome supported the importance of engagement in learning activities, with a clear connection between social and academic needs, which directly affect one another. Our students’ responses inspired the conviction that if students’ social needs are met, their ability to do well in
school will improve. We understood, more deeply than ever before, that the teacher’s initiative in maintaining a positive and personal tone in their interactions with Aboriginal students is key to creating an optimal learning environment for them.

Jesse and I were profoundly touched by the candid responses of our Aboriginal students. It was validating to hear how much they appreciated positive relationships with teachers and how much they valued engaging and respectful learning environments. We also were struck by how simple their learning needs were. They wanted to feel cared for, welcomed, and respected. They wanted to learn in new and innovative ways. They wanted to learn relevant and meaningful material. Their needs represented what learners in the 21st century need and embodied what advocates of formative assessment and deep learning wish to accomplish.

Jesse and I created a brochure to share the results of our inquiry with our fellow Network members at our Network celebration. We were speaking to educators who worked in communities with high Aboriginal populations and who were passionate about improving the learning of their Aboriginal learners. Jesse and I knew we may not be providing new information. However, our inquiry gave our Aboriginal learners a voice that sparked conversations among teachers and initiated or confirmed promising beliefs and practices. For us, it truly was an inquiry for the heart. Rather than solely focusing on academic outcome, it focused on improving the social/emotional well-being of students. The following year, Jesse and I were invited to share this inquiry at the British Columbia’s Teachers Congress. We were honoured to share our work with the Minister of Education, Aboriginal leaders, and other educators in the province.
Chapter 7: The Evolution of Inquiry

During my years as a Network member, I discovered that inquiry is a process that takes skill and practice. As I developed my ability to create deeper and more thoughtful inquiries, the changes I attempted in my class became deeper as well. The following year I wanted to explore how I could change the delivery of my curriculum using formative assessment. My goal was to improve the motivation and achievement of my students. At that time, I taught the usual gamut of novels, essays, grammar, and the like. I wasn’t focusing on skills like critical thinking, questioning, or collaboration. I began to realize that perhaps my repertoire was outdated. I needed to engage my students by creating deep learning opportunities and stop making them regurgitate content. This changed the way I thought about English. If I taught students how to think deeply and critically about a variety of texts; how to communicate their ideas in a variety of ways; how to question and think for themselves; how to work as part of a team then perhaps those skills would be available to them after graduation. Deep learning means personalizing the learning for each student, giving them control over what they learn and how they learn it. It also means giving choice in how they show their learning. Deep learning also increases engagement because students would have a greater sense of ownership over their learning. I began to see that offering deep learning opportunities would not take the place of my English curriculum; it would enhance it. I knew my next inquiry would explore not only what I taught but how I taught it.

In September of 2007, I began teaching an English 11 class. Like most classes, it contained learners with a variety of strengths, challenges, abilities, and unique personalities. At the beginning of the course, after getting to know the students and
assessing their initial writing samples, I made some interesting observations. I was teaching a number of boys who considered themselves “non-academic”. For example, two young men, Tyson and Kelvin, had failed grade 11 the previous year and needed both grade 11 and grade 12 English this year to graduate. They wanted to be finished with school and each had a job waiting for him, one as a logger and the other as a diamond driller. Engagement and motivation was clearly going to be an issue, and their writing assessments also demonstrated a need to build on their basic skills. Other students in this class included a group of very energetic, bubbly girls who were outgoing and intrinsically motivated. These girls were keen, engaged, and already possessed strong writing skills. To illustrate, Emily and Sadie could have taken the English 12 government exam and passed with flying colours. They clearly loved to read and write.

Having a class with diverse skills and abilities is nothing new to a classroom teacher. My goal was to find a way to motivate and engage the Tysons and Kelvins of the class so that they would attend and find success, while at the same time challenging and inspiring the Emilys and Sadies of the class so that they would push themselves further. I knew that I needed to implement new teaching practices to meet the needs of this class, and I knew that inquiry would be the tool to help me find and adapt these practices until I saw their positive effects for students. Based on my previous experiences with inquiry, I believe that implementing any kind of real change into teaching practice requires a three fold process – inquiry, collaboration and a new idea. My new idea was to create a deep learning opportunity by teaching my high school students to be coaches for younger students. I believed that coaching would allow me to provide a more personalized...
learning experience for my own students. I knew that the Network would provide me with the support and structure I needed to implement my new idea.

At the fall Network regional meeting, I connected with Beth a colleague teaching grade 7. We decided to collaborate and work together on an inquiry, linking her grade 7 students and my grade 11 English students. The Network gave us the time, structure, and support needed to begin our inquiry. We began by comparing our class profiles, student skill inventories that were based on the work of Faye Brownlie (2010), and had been developed in September. We agreed that the learning objective for Beth’s students was going to be slightly different than the learning objective for mine. Beth was concerned about her students transitioning to the high school the following year and she wondered if building relationships with current high school students would help ease their anxiety. I wanted to focus on coaching as a way of engaging students and igniting their curiosity so that my students would feel ownership over their learning. We both saw that our students would benefit from focusing on writing skills, particularly narrative writing, as determined previously from our writing assessments. As a result, we created a question to focus our inquiry: How will secondary students coaching elementary students, using the 6 + 1 Traits of Writing, impact the writing results of both students, as assessed by the performance standards for narrative writing? (Davey & Forster, 2007). Our vision was that I would teach my grade eleven students coaching skills and narrative writing skills, and they would then teach the grade seven students narrative writing skills and coach them toward improvement. At the end of the unit, they would write and illustrate a children’s storybook.
As we began to plan we realized that the coaching component was integral to the success of the inquiry. Although student buddies are not common in the secondary setting and may be thought of as something younger children do, coaching appears to be acceptable. Within classrooms, older or more experienced students often take on a coaching role with others in the role of teaching assistant or tutor. However, these roles are only for a designated few. I envisioned all of my grade eleven students fulfilling a coaching role with their grade 7 partners. Coaching at the secondary level requires deep learning; for example, it opens up a world where students are empowered, allowing them to take risks and build confidence, all of which foster lifelong learning. At the same time, they are developing critical thinking and problem solving skills while mastering content knowledge. It also recognizes the social needs of adolescents and how powerful learning requires interaction with others.

We also believed that teaching and modelling formative assessment would be essential to the success of this inquiry. Older students need to have clear learning intentions so that they know exactly what they are teaching, and they need to communicate those learning intentions to their partners. They need to make sure their partners know the criteria for success which inherently means they need to know the criteria as well. Descriptive feedback is given immediately by the student coaches to their partners, and the student coaches use key questions to help move their partners’ learning forward. Perhaps the most important formative assessment strategy built into student coaching is that students become learning and teaching resources for each other. Not only are the student coaches imparting knowledge onto their partners, but the act of being a coach creates an authentic and meaningful learning experience for the coaches. Lastly,
the learners become owners of their learning. They are no longer relying on the teacher to tell them the answer. They must navigate through the activity to find success for themselves.

Together Beth and I planned the unit, discussed our learning intentions for each lesson and shared ideas about how to achieve them. Other aspects of our teaching spilled over into these conversations, allowing us to think deeply about our practice beyond the inquiry at hand. When we were faced with challenges or problems, we could rely on one another for support.

The first week I spent a great deal of time teaching my English 11 students peer coaching skills, focusing on questioning and scaffolding skills using formative assessment. The grade 11 students were also taught narrative writing skills. I had believed that some students would balk at the idea of working with “little kids”, but many liked the idea of getting out of the classroom and taking on a coaching role. At their first meeting, students spent a large portion of the class building relationships and getting to know each other. The older coaches understood that learning began with relationships and that their job wasn’t to tell their partners the answers or do the problems for them.

They worked in a variety of locations throughout the high school, and Beth and I supervised them. We were pleased to find that all coaching pairs were focused on the task and needed no intervention. We matched each coach carefully with a grade 7 student, not only in terms of skill but also considering their personalities. I saw Tyson on task coaching his grade 7 partner, smiling and laughing. I saw Sadie and her partner working ahead as their excitement and skill level propelled them forward. They met once a week at the high school with their grade 7 partner, teaching and modelling narrative writing
and working on a practice assignment. At the end of the six weeks, they began their culminating project. As a final project, the coaches mentored and collaborated with their partners to create an illustrated storybook of their own.

At the end of the inquiry, the grade 11 English students were assessed both on the final project, the illustrated storybook, and on their peer coaching skills. A rubric was used for both sets of skills. Every student scored higher on the writing assessment than on their initial assessment, and every student showed improvement in the area of peer coaching. In addition, students provided their feedback through a questionnaire. This revealed significant improvement in motivation and ownership, especially for those students considered at risk. The feedback was overwhelmingly positive. For the grade seven students, anxiety about attending the high school the following year was significantly decreased.

For Emily and Sadie, this inquiry allowed them to use their already strong writing skills in a new and interesting way. They were model coaches who took ownership of the process immediately, following each lesson to a tee. These capable students found a real world application for both their interpersonal and their writing skills. Emily found it frustrating when her partner wouldn’t follow her plan, so she had to release control and negotiate during the final project of writing a storybook. Emily wasn’t used to giving up control. She was flexing skills she hadn’t had to use before. Sadie had to slow down her rapid pace to accommodate her partner’s learning pace and make each lesson’s learning intention clear for her partner. Although the pace was frustrating, it gave Sadie time to reflect on her own skills as a writer and to think deeply about each of the writing traits. She revealed her thoughts in her student reflection: *As the weeks went by and a*
relationship was formed, I learned how important it was to be patient with Holly and how much of myself I saw in her. Holly, like myself, needs to be pushed in order to for a deeper idea. Success for these two coaches went beyond producing a well-written storybook. They achieved deep learning.

The feedback that seemed most poignant came from Tyson and Kelvin. They did not miss one coaching lesson, even though they did skip other classes, and they took their coaching roles very seriously. Tyson and Kelvin formed a true bond with their partners and did not want to let them down. Even though working with a partner was difficult and frustrating at times, they made sure their partners learned each lesson and accomplished each learning intention. In his student reflection, Kelvin reflected on his own journey as a student: *I learned that teaching is a thankless, almost painful thing. I learned that teachers must have the patience of a saint. This experience has made me consider going and finding my old teachers and apologizing.*

Tyson and Kelvin, who had struggled as learners themselves, were now the "experts", and the writing skills they taught their partners became evident in their own writing, too. In his reflection, Tyson shared his experience: *I learned more about English this way. When I had to explain it, I understood better.*

Tyson completed English 11 successfully that semester, and English 12 the following semester. He passed the government exam and was able to graduate from high school. Kelvin also completed English 11, but dropped out of school the second semester and went to work logging. Kelvin’s story was a humbling reminder that there are no "silver bullets" in education. Although the coaching seemed to engage Kelvin for a time, he needed more to motivate him to stay in school. Kelvin was in my thoughts for a long
time, as I wondered what it would have taken to keep him in school. This concern eventually led to my next inquiry.

Beth and I reflected together at the end of our coaching project and we agreed that it had been incredibly rewarding for both our students and ourselves. We shared the story of our inquiry at the Network celebration in May of that year and were invited to share again at the British Columbia Rural Schools Conference the following October. Once again, inquiry and collaboration had allowed me to make real changes in my practice so that I could hone my use of formative assessment and provide opportunities for deep learning.
As an educator’s skill in inquiry improves, so does the depth and quality of the inquiry. Because the process of inquiry is spiral, learning never subsides or ends. The knowledge gained from one inquiry, sparks the beginning of another. It was through the Network that I connected with another teacher who had a tremendous impact on my evolution as an inquiry-minded educator. I met Diane at a number of Network meetings over the past few years. She was a teacher in another district and was widely recognized for her work in formative assessment. I was fortunate enough to have her as my mentor and coach when I was completing the Certificate of School Management and Leadership through the University of Victoria in 2007. Even after I completed the program, Diane continued to be a mentor, coach, and critical friend. We kept in touch regularly and engaged in numerous learning conversations geared around our inquiries and our pursuit of improving student learning outcomes. Diane challenged my thinking, introduced new ideas, and showed me new practices. It was because of her questions that I was able to create an inquiry that once again changed my beliefs and practice.

In 2010 I was teaching two grade 12 English classes. I administered an initial reading assessment and completed a class profile that allowed me to determine the strengths, challenges, and interests of the class. Many students were able to analyze, evaluate, and respond to sophisticated texts, but others had difficulty capturing the depth of their knowledge in writing. In addition, it was a common belief among students that English 12 was the final hoop they had to jump through in order to graduate; as a result, motivation and curiosity were very low. I was worried about absenteeism and
disengagement. I believed that using formative assessment strategies would help improve student ownership of their learning.

In September and October, I was using formative assessment with my students and encouraging them to use it as well, for self-regulation and for coaching, emphasizing that our class was to be a place of learning. I was not there to merely rank students or put up hoops for them to jump through. I explained that I did not use grades or percentages to show achievement but rather used descriptive feedback. I showed how we were going to use portfolios and performance standards as a way to move learning forward. I attempted to make students active participants in their own learning, giving them choices and variety in how and what they would learn. Some students seemed wary of this approach at first because they had not seen it before at the secondary level. They were used to teachers telling them what to do and how to do it and then giving them a grade.

It wasn't until it was time for me to give interim grades that the majority of students finally understood the goal of formative assessment. I was required to give a percentage at interim and report card time in grade 12. Many students felt angst and confusion leading up to mid-October, interim time, even though I assured them there would be no surprises in regards to their marks. By using a portfolio system, students could see their improvement over time, and by using performance standards, they could also see what they needed to do in order to improve. I spent a great deal of time teaching them what high levels of achievement in English looks like, and then showing them the progressions to that level. Early in the year, I did not want to give marks because of students' tendency to focus on the marks alone and not on the feedback. To keep the focus on learning and not on sorting, I used an achievement grid that showed students
their level of performance and what they needed to do in order to move forward. By the end of the process, students could see for themselves where exactly they were achieving. This alleviated their concerns around grades so they could focus on learning.

I noticed, however, that one student was not buying in. He was absent often and was having trouble handing in homework. Shae was a unique student well-known to his classmates for being unconventional and different. He hadn’t bought into the “sorting and ranking” mindset of high school, and he wasn’t buying into the “learning” mindset I was trying to cultivate either. While he was not a behaviour problem, it was clear he was completely disengaged from his learning. To complicate matters, I learned that Shae may also have had an undiagnosed brain injury, which seemed to affect his short term memory. I had Shae in mind when I attended a fall Network meeting.

I connected with Diane at that meeting and shared my class profile, highlighting Shae and the challenges I faced with his learning situation. Although I wasn’t ignoring the needs of my other students, I knew that if I created an inquiry that would engage Shae and improve his achievement, it would do the same for my other students. Together Diane and I explored the idea of using student inquiry in the classroom. From our own experience, we both knew that inquiry had the ability to personalize learning, empower learners and create deep learning experiences. Inquiry puts a great deal of control into the hands of the learners, allowing more freedom and choice. It gives students multiple ways of accessing information and multiple ways of demonstrating knowledge. We believed that with the proper facilitation and coaching, inquiry could be a significant learning tool in the classroom. Diane was going to use inquiry in her primary classroom, and I would use it in my secondary classroom. Of course, how inquiry was used and how it looked
would be different in each context, but the central belief was the same: allowing students to explore something they are curious about—something that didn't have a finite answer—would improve both motivation and achievement. It became easy to create our inquiry question from there: **How can student inquiry learning improve student achievement, motivation, and ownership?** (Davey & Koehn, 2011).

As I began, I needed to understand what exactly inquiry was at the student level and what it was not. The focus of inquiry is not on memorizing content but on developing key deep learning skills. Students need to be able to access and analyze information, communicate their knowledge effectively, and use critical thinking and problem solving skills. Because there is no one right answer in inquiry, they would have to be able to justify and explain their thinking. In an inquiry minded classroom, students are not passive members of the class, but active participants in a community of learners. The traditional teacher/learner role is redefined; teachers are not the controllers and dispensers of knowledge while students wait to be told what to do. Students are given the opportunity to choose a path for their learning that is not predetermined by the teacher. From my experiences working at the secondary level, this overcomes a significant barrier. Instead of being disengaged because of the traditional stand and deliver methods of teaching often found in secondary schools, students' motivation increases because they have voice and choice in what they learn and how they learn it. I realized that for inquiry to be successful at the student level, not only would I have to help students understand their new role in the learning process, I, too, would need to adjust a new teaching role.

The role of the teacher in an inquiry-minded classroom is significantly different than that in a traditional classroom. Teachers who are learners themselves may be better
prepared to facilitate the inquiry process of their students. As I began to understand this new role, I began to have doubts. How could I release so much freedom and control to my students? How would I ensure that deep learning was taking place? How were students going to know if their inquiry was successful? I began to understand that inquiry needs structure and scaffolding. I realized that formative assessment was the answer. By making formative assessment the foundation of inquiry, I would be ensuring that while students were engaged in deep learning, they would also have clear learning intentions and criteria for success. They would be given feedback regularly so that they would know if they were headed in the right direction. Powerful questions would move their learning forward, because inquiry is grounded in strong questioning skills. Students would own their learning and be learning and teaching resources for one another.

I started the process of student inquiry in my class at the beginning of a thematic unit on war. Theme-based teaching is not a new phenomenon in education, and the theme of War has been popular in many senior secondary English classrooms. It allows teachers to take advantage of the many rich resources available while engaging and connecting with students who are often intrigued and interested in this emotionally-charged topic. Traditionally, this topic was often explored through the use of the novel study, usually using the novel All is Quiet on the Western Front by Erich Remarque or Farewell to Arms by Ernest Hemingway. In the traditional novel study format, a time frame was given for each chapter, followed by comprehension questions. Perhaps an essay would complete the unit. Very little attention was given to differentiation or personalization. Everyone did what everyone else did, at the same time. At this point in my journey, I began to see the traditional novel study as a less than effective teaching strategy. Instead,
I wanted students to think deeply about the theme; as a result, we embarked upon a class-wide inquiry based on the question: **What are the effects of war on humanity?**

At the beginning of the unit, I communicated my learning intention: *Students will be able to create a product that shows deep understanding and connection to a variety of complex texts that address the question “What are the effects of war on humanity?”* The first step was to build students’ knowledge base and skill set using multiple texts — novels, poems, songs, primary resources, short stories, and films. As a class, I provided opportunities for guided practice and then independent practice in the areas of reading literature and reading information, so students could develop their ability to summarize, infer, connect, and then transfer their knowledge in regards to specific texts. At the beginning, we used a variety of texts that explored the theme of war, from poems to short stories to movies. I taught and modelled the skills for summarizing, inferencing and connecting. I then invited students to choose texts of their own and helped scaffold their ability to summarize, inference, and connect. For four weeks, students worked together to build a foundation of skills and knowledge. When they had gathered enough background information on the theme of war and interacted with a variety of texts, it was then time to have them explore the question on their own.

Instead of relying on questions or essays to show their knowledge, students chose their own mode of communication. From experience, I knew that when students first encounter new ideas, their knowledge is shallow and their understanding is bound to specific examples. With exposure to varied examples, their understanding of a concept becomes more abstract, and they can successfully apply that understanding to new material. Inquiry bridges the need for content with critical thinking skills. It was at this
time that we built criteria for their inquiry. We agreed that the product needed to explore big ideas, such as “War dehumanizes people” and “The effects of war travel beyond the battleground”. It should also create an emotional response using visuals and words. We also believed that the product needed to address directly or indirectly the texts we explored. Finally, the final product needed to be presented to the class.

Over the course of two weeks, students worked on their projects. They created an outline and a plan and then they discussed them with me. I provided each student with descriptive feedback on a regular basis at the same time as I was reviewing their progress. I asked students questions to move their learning forward. For example, one student wanted to interview her Japanese grandmother, whose family was forced into an internment camps in British Columbia during World War II when she was a child. The student wasn’t sure how to present this to the class and so I asked her what she wanted the class to learn and to remember. She said she wanted the students to understand how war impacted not only soldiers, but innocent civilians as well. I asked her how she could get that message to her classmates. She replied she wanted them to hear her grandmother first hand, to feel a connection to her. From there, she transcribed her interview with her grandmother and planned to share that conversation with the class, along with photos provided by her grandmother.

Students showed true engagement and ownership of their learning while working on their projects. In class they were eager to get to work and used their time well focusing on completing their assignments. When I circulated during these classes, I saw students absorbed in their work and sharing their ideas with their classmates. The final results were as impressive as they were diverse. A group of students created movies using
shadow and light as symbolism, showing the darkness and horror of war. Another student created a series of letters written from the perspective of both a soldier and his sweetheart back home. Yet another student decided to write an essay on the glorification of war in the current media. Students showed their ability to be innovative, creative, and curious.

The most profound example of this came from Shae. Shae, a fan of rap and alternative music, created a rap on the theme of war and then with a computer program created a piece of music to accompany it. The final result was powerful. Shae was unable to demonstrate deep understanding of many of the texts we studied, mostly because I expected students to demonstrate their understanding through written responses. Here it became clear that he deeply understood the effects of war on humanity. The entire class celebrated his learning, cheering, and congratulating him on his performance. Shae was proud of his accomplishment and performed his rap for the school at our next talent show.

It became clear that student inquiry had a positive impact on motivation and engagement. I observed it during the learning process and when students presented their projects. It was also evident through student self-reflections. Tianna, a bright and driven student who had displayed her knowledge in a mural, said “I like the chance to play with my learning”. Frankie, a capable student whose marks did not reflect her ability, created a series of poems, and she stated, “I choke on tests; essays can go either way for me. Inquiry lets me show what I can do”. I knew students had risen to the challenge of this project, each achieving a level of learning I had not seen them reach before. All students improved upon their skills for analyzing, evaluating, and responding to texts compared to their initial reading assessment. The projects were more sophisticated and developed and
their knowledge deeper and more complex than any assignment completed previously. In addition, the most significant improvements were noted in the work of students who did not meet or minimally met expectations for evaluating, analyzing, and responding to texts. These students made the most gains.

Embarking upon this inquiry allowed me to make significant changes to my practice that had tremendous benefits for my students. Diane and I met four times throughout the year, sharing the progress of our own inquiry into student inquiry and asking the key questions: “What are you doing? How is it going? Where to next?” We were asked to share our work at the Network of Performance Based Schools Leadership Seminar in May of 2011. Because of the Network, I could connect with educators who had a common goal and who valued and respected my learning. They shared their learning experiences with me, encouraged me take risks in my teaching, and helped me to move forward as an inquiry-minded educator.
Chapter 9: Moving Forward

Student success in the 21st century looks much different than it did 50 years ago; however, the structures of education are still very much the same. Most secondary schools in British Columbia organize students in grade and subject levels in a structured setting and provide a standard curriculum largely determined by educational requirements created at the provincial level. Some students are successful in this learning environment, not because they are engaged and intrinsically motivated, but because they know they have to get through high school in order to get on with their lives. However, many students are not successful and either struggle through or leave without completing. Without a high school diploma, options for employment and further education are limited. School reform is necessary so that every student can have the best chances for success in school and beyond.

Change is happening in schools across the province of BC. Structures and barriers that once limited true change are now being removed. The biggest challenge, however, to may be to change the mindsets of those who impact students directly – their teachers. Some teachers find it difficult to change longstanding beliefs and practices, and even when their reasons for balking change are removed, they find other reasons to resist change. For example, many teachers criticize formative assessment and deep learning because of concerns that teaching this way would take too much time. They wouldn’t be able to get through the content of the curriculum which was critical because there was a government exam looming at the end of the course. The Ministry of Education has now removed all government exams except for English 12 or Communications 12. In addition, there is work being done at the provincial level to reduce the number of learning
outcomes for subjects, thus reducing the amount of content teachers need to teach in a course. There is now greater opportunity for teachers to focus on depth rather than breadth because teachers no longer have to worry about covering a mountain of content. However, change within secondary classrooms is still moving at a snail’s pace despite these structural changes.

Another criticism of formative assessment and deep learning has to do with grading. Many teachers are reluctant to use assessment for learning and rely mostly on assessment of learning. Performance standards and descriptive feedback are not commonly used at the senior secondary level. A common argument is that universities don’t mark formatively; they rank and give percentages. Therefore, using performance standards would leave students unprepared for university. This argument no longer holds water. Many universities in British Columbia are using formative assessment because they are recognizing the significant benefits it has on learning. Assessment that focuses on ranking and sorting students sometimes using percentages to the tenth or hundredth of a decimal is disengaging, misleading, and outdated. Percentages do not inform and move learning forward. Often, this causes students to focus on the number rather than the learning, and if they do not achieve their desired number, their motivation and confidence plummet. There is also a blind faith in percentages. Many believe that percentages must be more accurate and precise than performance standards or other forms of descriptive feedback. This is not true. One flawed question on an exam can skew the entire results. Formative assessment is more holistic and flexible, attempting to assess the true abilities and achievement of a student so that students will know what they have to do in order to improve in the future. Educators are beginning to understand that formative assessment
and deep learning meet the needs of students in the 21st century, improving student engagement and achievement.

Inquiry can help educators change their practice using formative assessment and deep learning. Inquiry, however, can be messy and unpredictable, which is a barrier for some educators. In order for teachers to take the risks necessary and navigate through new terrain, a climate of collegial support and trust is essential. Schools are greatly impacted by context and can be driven by a number of factors that should have no place in education - politics, personal opinions and relationships, professional ambition. That is why professional learning communities are so important. They are created by educators, for educators, to help educators improve their craft. Every member is vulnerable and open; therefore, roles should be levelled for members once they become part of the PLC, consisting of classroom teachers and principals working on par toward the same goal. Of course, abuse and misuse of professional learning communities is possible. If teachers cannot find one that meets their needs, I encourage creating a new one. An optimal PLC consists of 6-8 members and focuses on changing practice to improve student outcomes. Book clubs, breakfast meetings, and coffee talks are ways to gather educators so that they can have meaningful conversations about learning.

Inquiry doesn’t always go as planned and feelings of failure can occur when teachers are experimenting with new practices. Recently, I completed an inquiry inspired by one I had done previously that proved to be successful. I wondered: “How would collaborating with elementary school students to create a storybook impact the engagement and narrative writing skills of Writing 12 students?” I had hoped that getting out of the classroom, collaborating with other students, and working on an
imaginative project would have a positive impact on student outcomes. At the end of the inquiry, I realized that the improvements I had hoped to see were generally not achieved. By analyzing the anecdotal data I collected, I learned that these students did not want to work with younger students, as they did not yet see themselves as an expert in writing yet. They felt they would have made greater improvements by working with older students or even adults on a writing project of their choice. After the sting wore off, I was able to see this inquiry as a great learning process as an educator. I started the inquiry based on an assumption. I realized I should have gotten input from my students before the inquiry. Again, inquiry shows that educators are still learners themselves, and teaching is a craft that is always being honed.

My two guiding questions when I was planning on creating this resource were:

1. *What is the essential knowledge that I want to share?* and

2. *How can I share it in a way that will inspire others to engage in inquiry as they apply it and make their own meaning?*

I believe I have answered the first question. That is, the knowledge I want to share with other educators is the importance of making profound changes in education with the goal of improving student engagement and achievement. Teachers can make meaningful, sustainable, and positive changes by incorporating formative assessment and deep learning into their practice through the process of inquiry.

The second question is not up to me to answer. My goal is for other educators to hear my story and become inspired or encouraged to make changes of their own. This resource is in no way a model or blueprint, and its intent is not meant to criticize teacher practice. Its purpose is to spark curiosity in educators and help them see themselves as
learners. As teachers, we deserve to be curious and inspired about our craft. We should feel that we have the power and security to take risks and make changes. I would like to conclude by inviting you to answer questions that may lead to an inquiry of your own:

1. What do you want most for your students?
2. What are you curious about trying in order to make that happen?
3. Who could help you move your learning forward?

Finding answers to these questions are the first steps into a new educational frontier at the edge of formative assessment and deep learning. This terrain may be rugged but my excursions have taught me that it is rich with opportunities for adventure and the fulfillment of discovery. The invitation to revitalize your teaching and create a better world for yourself and your students is open...there is much territory yet to be explored!
References


