



Leading for 21st Century Learning

As we develop initiatives designed to equip all learners with 21st century competencies, what do we know about achieving success?

We have always had lofty goals for learners in our schools. In British Columbia we have had decades of initiatives dedicated to improving learning. Great energy and substantial resources have gone into the projects. And each one produced findings that made a difference. Over the years I have had the privilege of leading or co-leading many learning-focused initiatives. Some of the work grew into full-blown multi-district action research projects like the *Learning for Success* project (1989-2002). Dr. Milton McClaren and I led that project and the findings touched a global nerve in education. Teams of leaders from the project presented aspects of the work, as keynote addresses and workshops, at many prestigious conferences across the globe. Numerous articles, publications and advanced degrees grew out of the work¹.

The important findings from the *Learning for Success* project laid the foundation for what we now call *SmartLearning*. Many people have experienced iterations of the approach, and thousands of learners have been influenced by the practices. We are now at a place with *SmartLearning* where we see the approach as a research-proven way to develop mindful, self-regulated learners -- learners with *adaptive competence* prepared to flexibly and confidently apply 21st century skills and knowledge, to important tasks.

Equipping learners with 21st century skills is a fairly new global initiative driven by the OECD² nations. No one would disagree with the idea of preparing learners with the higher-order skills needed to thrive in a fast-paced, ever-changing world. Every district or school division will be developing initiatives with the OECD directions in mind. What do we need to do to prepare all learners with the *adaptive expertise* they need to be able to flexibly and fluidly apply higher-order skills to matters of substance? How will we achieve success with our initiatives? How will we sustain the work of the initiatives, to achieve full implementation over time? We need to take time to think deeply about these important questions. Why, you many ask? Our track record of sustaining initiatives in education is a little bleak. Other than the weekly pre and post tests in spelling, very few initiatives have reached full implementation or have been sustained through time.

We are at an important juncture in time, where global directions for learning are turning to ways of developing 21st century skill-sets, *adaptive expertise*, in all learners. The OECD is suggesting the global education community use learning science research findings to inspire practice. This is music to my ears because the practices in *SmartLearning* are based on over twenty-five years of deeply thoughtful action research, involving hundreds and hundreds of educators in this province. During my masters' work in 1999-2001, I conducted a research study designed to identify approaches that best support educators to learn, reflect on, and systematically implement research-grounded practices. One aspect of the study examined what kind of in-service training best supports educators at different levels of the system, as they integrate cognitive process instruction into their practices of teaching.

The findings³ from the study led to the design of a district-wide training strategy for developing student performance in reading and writing -- a highly successful initiative implemented over more than six years in the New Westminster School District⁴. The educators and I will always be grateful to the Board of Trustees in SD40 for their dedicated support, and for their championing of the initiative through more than two terms of office. We saw significant growth in achievement in the first three years, but staying the course for over six years led to dramatic gains in reading and writing across the grades. In 2008 we received the Canadian Educational Researchers' Todd Rogers Award for leadership in evidence-based research. Through our action research work we built investigative networks that use assessment information to improve achievement.

The district-wide training strategy included embedding a system of structures designed to support people at different levels of the system, in different ways. Findings from that initiative laid the foundation for developing a Professional Learning Community⁵ approach to implementation. Leadership initiatives over the past four years have led to a PLC approach to implementing *SmartLearning* that includes cycles of layered professional interactions: workshops, classroom-based *SmartLearning* rounds⁶ and opportunities for side-by-side planning, teaching and coaching. Variations of the PLC approach are now in all *SmartLearning* implementation initiatives. Reflections on the power of the work can be seen at www.smartlearning.ca/reflections. Findings from this leadership work are being presented at the 16th annual Values and Leadership Conference, Sept.25-27, in Victoria B.C. by teams of leaders from five BC school districts.

Studying success across the literature leads to fascinating findings. I have always loved uncovering pearls from the works, and playing with ways to integrate learnings into our own initiatives. I am so grateful for having had opportunities to brush shoulders with, and to deeply learn from so many dedicated people – researchers, educators, students, and parents alike.

S•U•C•CE•S•S^{7/8} for me, whether it is teaching side-by-side during a learning round, or leading a large-scale initiative, always has a **simple message**, and the simple message in *SmartLearning* is, *Better Tools•Better Learning*. The message needs to answer, *why*. The *why* in *SmartLearning* is a moral imperative: we need to do everything we can to ensure learners are prepared to thrive in an ever-changing, fast-paced world. Once we know where we are headed, we can set lofty goals and draw on research-proven practices to get us get there. And we need time, real time, to get to the destination. I was so thankful that the trustees in SD40 supported our professional interactions through two terms of office. In six years we dramatically enhanced learning, right across the district, with only 1/3 of the educators involved in the action research, at any given time.

An initiative needs to cultivate a sense of identity and instill a growth mindset^{9, 10}. The work needs to touch a nerve, a moral purpose. When an initiative touches a nerve, it activates strong feelings. Everyone involved needs to continually point to where we are going and why - a destination. And hard questions need to be asked: Is what we are doing getting us what we want? How do we know? We need evidence that the work is getting us somewhere. We need evidence that shows us we are on a right path. Movement in the learning -- tiny breakthroughs -- kindle energy, and help to sustain the focus. And if the work isn't producing the effects we are looking for, we need to dig deeply to figure out different pathways to the destination. Or, as a famous person once said, "When the horse is dead, you need to get off."

After each cycle of learning, reflection and analysis brings new goals into focus. We know where the learners are, and where we want to go. Formative assessment fuels planning, teaching and new learning. Assessment has had decades of work in this province. Criterion referenced assessment has been on the books for over forty years, and everyone in the system has engaged in assessment *as*, *of* and *for* learning conversations, for some time. In our *SmartLearning* work this fall we will be introducing a *SmartLearning* assessment called **A•S•K**, one that will a•s•k learners to show us how well they are applying **s**kills and **k**nowledge in

grade-level texts (fiction or non-fiction, Gr.1-12) as they think and read to respond to open-ended, high inference tasks. The skills in the assessment are skills outlined in the Language Arts Curriculum (2006), and in the case of content teachers, the knowledge is drawn from their respective disciplines. The assessment is fully aligned with the teaching practices in *SmartLearning* and it is designed to inform planning, teaching and learning – for the teachers and the students alike. One feature of this assessment is that goal-setting, self-monitoring and the self-regulation of learning are built into the process.

Once teachers know where the learners are in relation to the knowledge and skills being developed, they design learning sequences that offer clear and dynamic pathways for all learners to advance their knowledge and skills. These pathways are informed by learning science research, a deep and perceptive body of research supporting all of the work in SmartLearning.

To be *full of success*, an initiative needs to be broken down so that it no longer looks or feels overwhelming. We all know that *deer-in-the-headlight* look when we see it. Participants need entry points that seem manageable. Everyone thrives when they make small moves that lead to shifts in learning, moves that build strong habits. Nothing is laminated. Personal style is celebrated. Collaboration is a key. A culture of learning grows when participants have collegial opportunities to plan, implement, analyze, reflect and share the effects with others.

Implementation is greatly enhanced when educators at all levels have opportunities to **see high fidelity practice, in action, in the classroom**. These opportunities show what is possible -- if we stay the course. Developing leaders willing to open their doors to showcase practices gives others windows into what 21st century learning looks like and feels like. Creating structures that enable co-planning and co-teaching, structures that encourage personalized ways of putting theory into practice, builds strong communities of practice. To sustain an initiative over time, structures for collegial learning need to be in place.

S•U•C•C•E•S•S is the driver in *SmartLearning*.

Our goal in *SmartLearning* is to equip learners with the skills they need to sail through the 21st century as mindful, self-regulated learners. Through each year of implementing and studying the effects of the system of practice, our understandings about **what makes a profound difference to learning**, are filtered through learning science findings.

We continually ask important questions, and refine our practices in light of new understandings:

Is what we are doing giving us what we want? How do we know? How does a learning situation release the full capacities of all learners, and help them to learn and retain complex skills (Langer, 1997)¹¹

We want people working with the *SmartLearning* approach to experience success. This can be hard, if people only have the opportunity to experience one or two isolated workshops or conference sessions. The OECD literature is saying that the work to integrate learning science findings into practice is **far too complex to learn in workshops alone**¹². We know that for sure. One of our frustrations is not having enough time to thoroughly prepare people to get started with the practices, or to go deeper. We want them to leave PD sessions feeling prepared for their next steps. Cycles of learning that include workshops and opportunities to see what the practices look like in the classroom, make a difference. We use school-based *SmartLearning* rounds, much like doctors' grand rounds, to show the practices *in-action* with real students. There is a natural feel to the work. The skill focus is selected based on learner needs. A learning sequence is designed to advance identified skills, and participants are given research lenses – often the principles of learning – to apply to the learning as it unfolds. Following the in-class work, participants work in teams to reflect on the experiences, and to analyze the effects of the plan on the learning. They discuss the next steps for the particular class of learners and then develop applications suitable for their own students. Through the combination of workshops and learning rounds, people grow to understand the thinking and research underpinning the *SmartLearning* practices. Once personal implementation begins, participants reach to work in side-by-side situations, to co-plan and co-implement aspects of the practice, reflecting and coaching each other to new understandings.

We see *SmartLearning* as a way of **leading for 21st century learning**. Over time *SmartLearning* has grown into a system of practice capable of equipping learners with the 21st century skills – the adaptive competence (OECD, 2010) -- needed to engage in personalized learning. The careful scaffolding of skills through whole group interactions leads to higher

understanding and lasting learning (H•U•L•L). The mindful application of skills and knowledge through guided independent reading (M•A•S•T), and the solo application of skills and knowledge through personal inquiries (S•A•I•L) will prepare learners to sail confidently and competently through the 21st century seas of change.

We see **high fidelity implementation** of the approach as a way to equip all learners with **the global goal of adaptive competence**. Through cycles of learning developed at the local level, clear vision is articulated and pathways are designed to support full implementation.

For us, s•u•c•c•e•s•s with SmartLearning needs:

S: ... to have a **simple** message. The message in *SmartLearning* is, **Better Tools•Better Learning**.

The practices in *SmartLearning* have developed through action research projects involving hundreds of educators, over the past 25 years.

A publication in process right now, *BrainSmartTools: powerful pathways for 21st century learning*¹³ will support educators to use the *SmartLearning* framework, and a host of skill-specific learning processes, to develop sophisticated skill-sets, and deep levels of understanding across the curriculum. The goal is to equip all learners with tools that enable them **to apply their skills and knowledge independently to matters of importance** -disciplined explorations of questions, issues, problems, and interests.

We use the tools to teach important skills through **whole-class learning sequences** designed with open-ended tasks and specific skills in mind. These whole-class sequences lead learners to **higher understanding** and **lasting learning** (H•U•L•L). The students are guided to **mindfully apply** the **skills** and **tools** to *just-right* texts – texts read with deep comprehension at the speed of speech (M•A•S•T). They go on to sail **solo** as they independently or collaboratively **apply** the *SmartLearning* framework and tools to **independent learning** -- personalized inquiries or disciplined explorations into matters of substance (S•A•I•L).



U: ... to have **unexpected results**, and to develop deep **understandings**.

In *SmartLearning* you often see dramatic shifts in thinking and achievement, in a very short time. One teacher attending a learning round said, *"I am so inspired! The intense engagement, the visible respect between the learners, the depth of thinking, the goal-setting and the perceptive reflection, were so impressive."* Deep understanding on many levels is important. The deep understanding of content and pedagogy is important for educators. The deep understanding of content, process and metacognitive knowledge is important for the students. They need to be able to set goals confidently in relation to tasks at hand -- using knowledge of their own learning. They need to learn how to reflect, monitor and self-regulate as the learning unfolds, and they need to set new goals based on new understandings. Our new learning log and response sheets have the coaching card icons embedded on the pages, and this feature really supports goal-setting and self-regulation of learning.

Understanding the research underpinnings, and the thinking behind *SmartLearning*, is very important to us. One of the hallmarks of the approach is that the practices are continually informed by findings emerging from the learning sciences -- neuroscience, cognitive science, attachment theory, motivation, literacy, assessment -- and from continuing classroom-based study.

C: ... to be **concrete**.

What is *SmartLearning*? Why this particular framework? What is the thinking and the research behind the approach? What are the important skills being developed? Where are my particular students in relation to the skills? How do I choose where to start? What tools will work best for my students, given their backgrounds and skill-needs? How do I plan with these skills in mind? What do I need to get started? How will I get a handle on the best way for me to get the system up and running? Who do I know that is implementing this approach? Who will I turn to, to guide me along the way? What support structures do I need, as I work to implement and study the effects of the approach?

C: ... to **credible**.

Seeing the practices *live* really shows the power of the approach. You can see from the patterns in the reflections, people love seeing the components of *SmartLearning* up and running in 'real' classrooms. Many people – parents and educators alike – comment on how thoughtful and reflective the learners are, and on how confident they seem with the skills at hand. One person said, *"The learning speaks for itself!"*

E: ... to touch **emotions**.

Many educators reflect on how valuable it is to see learners and teachers who have been working with the practices for some time. One mentioned, "*Seeing learners well into the year, shows what's possible, and it shows the power of staying the course, or sticking-to-the-knitting!*" The personal and academic gains stimulate everyone involved.

S: ... to have **stories of success** emerging; stories that inspire, stories that fuel energy for learning new ways of doing business, stories that **reveal the power in the work**.

We have so many stories of success emerging from implementation projects. In February, 2011 Penticton demonstration teachers opened their doors to show *SmartLearning in action*, during a two-day institute. These leaders have been implementing and studying the effects of *SmartLearning* on achievement for many years. Institute reflections show the power of inviting people to see high fidelity practices 'live': www.smartlearning.ca/reflections. Participants also appreciated being able to engage in workshops designed to showcase particular aspects of the practice.

Inquiring into SmartLearning, a document reflecting findings from Okanagan Skaha District Inquiry projects, will be available on the website in the fall. One team from that project led by Tammy Kay took the practices to a Haitian Literacy project during July, 2010. Delegates at the Aug.29-31 Vancouver "*Sailing the 21st century with SmartLearning*" Institute will see the effects of that work. A story will also be featured on the website in our fall update.

To see applications in Uganda, go to YouTube, search: Rwentutu/cdnhorses2010. In the clip you will see Carrie Ng and a team of BC educators working with educators and students in a village school. The bus trip on the PD day was the content for the first teacher-write, and work with the *SmartLearning* coaching cards led to vibrant written expression flowing from the students. Two short experiences with *SmartLearning* made a profound difference.

S: ... to have people saying, "This makes **sense**; this makes a difference; I want to do more. Who can I work with?" Collaborative planning, co-teaching and coaching **spread success**, and **sustain** momentum.

Success inspires. Seeing learning *live* in classrooms during learning rounds stimulates a vibrant energy for learning. The analysis and planning sessions that follow set people up to start or to continue their personal implementation work. As they think through ways to apply the understandings in their own classrooms, and as they learn from their personal implementation work, they reach to talk and learn with others.

Sharing practice stimulates and extends practice. Implementation and learner achievement soars when educators have opportunities for sharing, co- planning and side-by-side teaching followed by analysis, reflection and planning anew. As educators inquire into aspects of the practice and work to fine tune their applications, with collegial coaching, high fidelity practice emerges.

Collegial interaction builds confidence, extends understandings, and **sustains momentum**. As

people gain confidence they seek coaching based on an aspect they are working to develop. For coaching to happen we need to develop a cadre of leaders, natural linkers, with rich grade-span experience and full understanding of the practices.

A professional learning community at the school, inter-school, or district level, focused on implementing and inquiring into aspects of practice, provides a friendly place for deep sharing and for the coaching of new understandings. Continual refinement of practice in light of new learning keeps the community vibrant and moving, much like the water on a lake, river or ocean. Many jurisdictions are developing networks of action research or project teams committed to implementing, studying and refining the work of *SmartLearning* -- slowly and carefully over time.

SmartLearning: leading for 21st century learning is the journey ahead. Preparing learners – with the complex skills they will need to **S•A•I•L confidently and competently on the seas of tomorrow**, is our work. Applying the 21st century skills to matters of *substance* through collective, collaborative or independent projects -- disciplined explorations -- will be theirs.

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