

Building Blocks for UDL by the team at Birchland Elementary School, Port Coquitlam, BC

If we agree that students possess an enormous capacity to learn that extends far beyond what is commonly experienced; then we can be open to creating far greater learning experiences than may have once seemed impossible...

The Motivation:

This notion inspired the motivation that our Birchland Elementary School staff felt in 2008 that propelled us to collectively embark on a new journey of teaching and learning for approximately two hundred children.

At that time, we were determined to expand upon our traditional classroom instruction, to make it more accessible and enjoyable for all students, particularly those who did not respond well to customary teaching methodologies. Although we had always worked hard to deliver curriculum adaptations and remediation, i.e. (extra time, adult help, reduced work load, an occasional device), we felt that many of our students were still not reaching their full potential. We wanted optimal achievement for all of our kids and wondered what changes we could make that would increase their engagement and success.

How could we improve our teaching traditions and mindsets? What changes could we make that would help our students to feel more inspired? What would help students see themselves as capable learners and how could this lead them to reach higher skill sets? Would delivering instruction in multiple representations (visually, orally, tactically) motivate more students to master more of the required curriculum concepts?

Compelling Vision:

Open, informal professional dialogue grew into a 'global vision' based on these beliefs:

- We value each learner's individuality and potential
- We provide flexible ways to engage, assess and support learning

- We ensure students who need digital materials receive ‘access’ to general curriculum and supplementary content
- We embrace diversity in how learning is accomplished, demonstrated and measured

We discovered that these tenants existed in a framework called Universal Design for Learning (UDL). Using this model, we set out on our path towards becoming a “UDL school” for the purpose of increasing student achievement.

The Framework to Guide Change:

Universal Design for Learning (UDL) is a framework to develop alternative paths to reach an intended outcome. When applied to the learning process, it involves providing a variety of conditions to allow each child to be motivated, engaged and encouraged to express their learning in a way that is most suitable for them. When teaching students with unique learning styles or challenges, providing multiple learning strategies and experiences becomes a necessary component in evolving them from minimal to high achievement and from learning despair to learning excitement.

For these students, ‘access’ to the curriculum is the main priority. Rather than laboring to move all students through curriculum using the avenues of traditional instruction, the UDL approach invites educators to develop a greater realm of possibilities for these students to more ‘*meaningfully*’ engage in the learning process.

The term ‘meaningfully engaged’ made sense to us. We could wrap our arms around it and be motivated by its power. We felt that meaningful engagement was the key element in optimal learning and success. We began to critically evaluate and reflect on the UDL principles and let them guide us toward a paradigm shift; one that we anticipated could improve learning outcomes for all children.

As we reflected, we identified and challenged some of the common assumptions that could serve as barriers to making or sustaining change. These included:

- What works for most, works for all
- What worked for me, works for you
- What worked in the past, works now

Our experience had shown us that none of these assumptions really held true in our profession, so we set off on our journey of discovery.

Year One: Acquisition of Technology and Professional Development

In year one, we applied for and became a pilot school in a UDL project initiated by [SET-BC](#). (Special Education Technology, British Columbia). Four staff members; a Student Services teacher and three grade 4/5 teachers; took part in the project which provided the financial support required to put the professional learning model in place.

Project participation allowed for the purchase of teacher laptops and provided weekly ProD sessions for our team leader on how to use technology in the classroom. Our Parent Council supported our efforts by acquiring Smartboard technology for the three participating classrooms. Curriculum content was routinely being presented in multisensory ways. That year, we observed a heightened level of engagement by our students and were encouraged to continue on our way.

Year Two: The Support to Innovate

Our project expanded to a school-wide initiative, which was supported by our school district. They encouraged our innovation and provided some financial support for a project facilitator and some additional opportunities to collaborate.

It was during this year that our Student Services teachers began to change their primary method of support delivery from external (pull-out support) to internal (in-class support) and started to redefine the role as one of “partner teacher” with the classroom teacher.

Our Parent Council continued to support the purchase of Smartboard technology and all of our classrooms received them. While this allowed for multiple means of representation, were we providing students with a variety of ways through which they could express their knowledge -*multiple means of expression?* We continued into the next year with this question in mind.

Year Three: Tools – Technology - How Do You Use Them Effectively?

We had to be mindful not to use technology for skill drill, or simply to captivate the audience. For technology to fit the truest sense of UDL, it must be used to increase ‘access’ to general curriculum materials and, at the same time, provide support for the learner’s particular challenges. For example, students who are visually impaired or who have challenges with processing speed, “text-to- speech” technology can be a powerful tool in helping them to keep pace and comprehend what they are reading. For students who are dyslexic, programs that read content aloud and have the ability to read written text back to the student are helpful tools. For children who find it physically taxing to carry books or turn pages, digital books can relieve this burden. In each of these cases, the technology is used to “even the playing field” and allow the child independent access to the curriculum. We wanted to provide this kind of technological assistance for our students, whenever they needed it.

SOLO 6 Technology Literacy Suite, Don Johnston Inc.

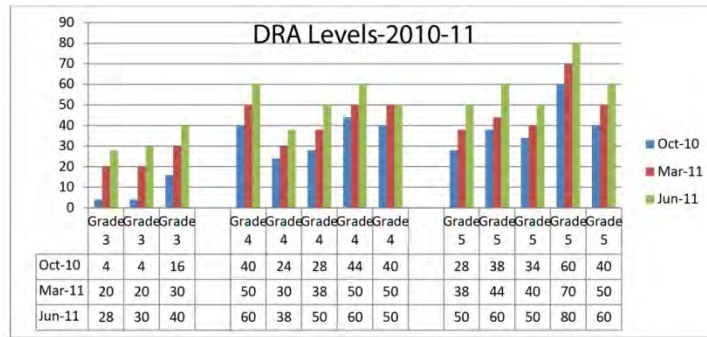
When we shared our vision and details of our UDL journey with Don Johnston, (a leading assistive technology company that has worked with SETBC for many years), we were met with an enthusiastic team and a favorable response to begin an active research partnership. We were able to provide unlimited access to SOLO 6, a computer literacy suite that includes four accommodation tools to improve reading and writing:

- 1) a talking word processor, 2) a text reader, 3) a word prediction writing tool and
- 4) a draft builder to organize information

Our students began to use the software in their classrooms, the library and at home. Students, along with their families, responded favorably to the new ‘school-to-home’ learning approach. Teachers found the tools, tutorials and materials provided by the company to be invaluable in allowing them to make more effective use of technology in their UDL classrooms. Together with colleagues and parents, we continued to celebrate increasing student success.

Year Four: Documenting Student Results

Documented gains in reading comprehension of students who were identified with Learning Disabilities gave clear evidence of the effects of increased student engagement. As shown



on the DRA Reading Gains Chart above, the average reading gain for identified students was 19.6 levels for the year. This was a remarkable improvement compared to results from four years earlier, when the average reading gain for identified students was 5 levels. Due to successful gains that students were showing in Reading Comprehension, we shifted our focus toward finding ways to infuse the UDL principles into our students' writing experience.

Self-Regulation - Students Share Feelings about the Technology

It made sense to us that as students became more proficient at regulating their own learning, they would also be more invested in their learning. By providing a balance of opportunities and explicit teaching to build self-regulatory behaviors, we felt that we were increasing their chances of becoming independent, lifelong learners. The following remarks reflect this:

SOLO6 helped me make sense of my sentences because I usually write fast and don't stop and edit. So Write:OutLoud reads it to me and when I listen and hear a mistake, I can go back and change it so it makes better sense to me. Zahal

I really like Read:OutLoud because it reads internet websites to me. I if I am doing an animal project, I don't have to read all the facts, it reads it to me! Lina

I have it at home and it is awesome. I've wrote lots of things and one of the things I like about it, is it tells me my word so if I make a mistake, it will read it wrong and that's how I know that it is wrong. The good thing about CoWriter is that it guesses what I'm going to write. Josh

Read:OutLoud helped my sister learn to read books by herself because it read to her then she repeated it. She is 6 years old but it is appropriate for any age. My Mom and Dad approve of it. Nathan

Spelling is hard for me because I have a learning disability. SOLO6 helps me a lot even though I write faster on paper the quality on the computer is a lot better. My mom and dad are a lot happier with my spelling now. I am a lot happier with my spelling too! Jarrod

SOLO6 has really helped me, like fixing my spelling mistakes and saving me a whole lot of time. There are difficult words that a whole bunch of people don't know how to spell. But with CoWriter you could spell the words you

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couldn't spell before. I usually come home with a lot of homework. The homework I do is probably going to take me an hour but with SOLO6 it could take me about 20 minutes. By saving me a lot of time, I have more time to hang out with my friends. Gabi

Compared to Microsoft Word it rules because Microsoft Word only underlines the misspelled words in red and it can't read it to you like it is now doing as I am typing. I like it when it reads to me because it helps me to look for missing words. Jessica

CoWriter has saved me a lot of time. Instead of waiting for the teacher to come around, all I have to do is spell it the way I think it's spelled and then it will usually notice that it spelled wrong and read it to me. Then it will have it ready for me to change in a little floating box. Megan

One of the four that have really helped me is draft builder because it helps me keep my thoughts organized so I can't forget them. I can put my thoughts under certain topics so they are easier to find. Seargeoh

2011 - Summary:

The road that we have set out on is a continuous, exciting and challenging one. It is our hope that other educators will read our results and feel encouraged as they embark on their own UDL journey. While each experience will be unique, we identified the following as common threads that have kept us moving ahead on our journey in the past four years:

- The Motivation to Make Change
- A Compelling Vision of Success for All Learners
- A Framework to Guide Change (UDL Principles) / [SEE SHIFT](#)
- Leadership that Supports Innovation
- Partners that Share the Vision
- Financial Support to fund Technology and ProD
- Sustained Professional Development & Training
- The Ability to Fail
- The Continued Celebration of All Team Members and Ideas