

Conseil scolaire catholique Franco-Nord: 2015 - 2016

Project Title	Implementation of the New Pedagogical Vision for 21st Century Learning
Description	<p>This year, our objective is to pursue our transition to the 21st Century by focusing on the implementation of our new pedagogical vision (development of the six key skills, best pedagogical practices, learning partnerships, and technology integration) in all 14 schools.</p> <p>Intensification and systematization of the implementation of the new vision for pedagogy and technology will require a major, ongoing effort in terms of professional development. At the present time, professional development comes in the form of leadership provided by the school principals, the pedagogy coaches on the school success support team, and support from the CFORP TacTIC team.</p> <p>Every Board school is assigned a pedagogy coach who supports the school’s teaching staff in a variety of ways (coaching, modelling, co-planning, co-teaching, etc.). The school principals monitor implementation and support their staff to transform their pedagogical practices, in line with the Board’s new pedagogical vision. The teaching staff are also given support by the IT team for problems around the use of the technology.</p> <p>As part of our innovation project, we will be exploring various ways to maximize the impact of the resources that are currently available to us. We will be supporting the professional development of these technology-pedagogy coaches more intensively, so that they can become accessible models and resources in their school and throughout the Board. We will use the SAMR (Substitution Augmentation Modification Redefinition) model to show our staff the potential of technology to enrich student learning, based on an in-depth learning model.</p>
Context	<p><i>Number of students: 1,200</i></p> <p><i>Number of teachers: 125</i></p> <p><i>Number of schools: 9</i></p> <p><i>Grades/Program: K-12</i></p>
Impact on Learning	<p>Over the past two years, implementation of the Board’s new vision for pedagogy and technology has been the focus of our innovation research project, and we can see the impact that it is having.</p> <p><u>Student engagement and motivation:</u></p> <p>The development of learning partnerships appears to have had an impact on the engagement of our students; they now have a voice and can offer input on the decisions that need to be made throughout their learning. In addition, they are more motivated and engaged because learning is more authentic and relevant to their reality, especially when they see a connection to their future.</p> <p>Because there is more collaboration, more sharing, and more co-operation during</p>

learning situations, there appear to be fewer challenges in terms of student behaviour and discipline. In many cases, we are seeing an increase in self-esteem. We have seen students increase their ability to work independently, their organizational skills, and their self-regulation. Our students are developing more resilience.

We also note that learning supported by the use of technology appears to be having a positive impact on the achievement of our male students. Several teachers report that they want to go further, get more information, and work harder on their assignments.

Student success:

According to our analyses, increasingly, technology is enriching student learning. With the implementation of the new pedagogical vision supported by digital technology, our students generally appear to be submitting work of higher quality. In our opinion, increased student engagement and motivation, in and of themselves, appear to be contributing to higher student achievement.

The students are trying to do good work because they know that their peers will be evaluating them on predetermined criteria. They appear to be taking more responsibility for their learning. They are generally working more independently.

Generally, the students appear to be submitting work of higher quality and demonstrating greater comprehension. In a survey of intermediate division students, 72% reported that their assignments were better when they used an iPad and could choose from a variety of applications, depending on the task. In the junior division, 86% reported that this was so.

Oral and written communication:

In 2014-2015, our SWST (Student Work Study) Teacher chose to work on oral communication, expression of mathematical thinking, communication of language (ALF) and written communication in three small schools, using technology for learning (interactive whiteboard and iPads). It was observed that student communication improved in all of the strands and that students also developed better work habits and learning habits.

ALF – Writing: 2015-2016 – SWST (Student Work Study) Teacher:

The iPad, speech synthesis, and word prediction all increased the quality of written communication of students in Grades 3 and 5.

- Speech synthesis combined with word prediction encourages students to ask themselves more questions about how to spell a word (trial and error), and this leads to an increase in the rate of self-correction.
- Speech synthesis correctly pronounces phonemes, which facilitates phoneme/grapheme correspondence. As a result, grapheme/phoneme

correspondence improved. Combined with word prediction, speech synthesis encourages students to ask themselves more questions about how to spell a word (trial and error), and this leads to an increase in the rate of self-correction.

The correlation between independent work and efficient use of speech synthesis and word prediction was less obvious. However, the data did reveal that:

- There is a direct link between the quality of written production and independent work;
- The ability to work independently decreased when students wrote on paper;
- Efficient use of speech synthesis and word prediction is not a factor that increases the ability to work independently.

Developmental Reading Assessment (DRA) of Students in Grades 6, 7, and 8:

Reciprocal teaching, enhanced with the use of iPads, contributed to an improvement in the achievement of students in Grades 6, 7, and 8 in reading, as assessed with the DRA tool. According to our observations and an analysis of the students' work, they experienced improvements in reading, writing, mathematics problem-solving and, in the case of our students who are learning the language (ALF), language acquisition.

In Grade 6, out of 23 students, only 5 (21%) had achieved or exceeded the DRA60 target in November 2015. By April, one student had advanced by 1 level; 8 students had advanced by 2 levels; and 3 students had advanced by 3 levels. In all, 15 students (65%) had reached or exceeded the DRA60 target, resulting in an increase in student success in reading of 44%.

In Grade 7, out of 32 students, 13 (40%) had achieved or exceeded the DRA70 target in November 2015. By April, 4 students had advanced by 1 level; 12 students had advanced by 2 levels; and 2 students had advanced by 3 levels. In all, 28 students (87%) had reached or exceeded the DRA70 target, resulting in an increase in student success in reading of 47%.

In Grade 8, out of 43 students, 22 (51%) had achieved or exceeded the DRA80 target in November 2015. By April, 8 students had advanced by 2 levels and 8 students had advanced by 1 level. In all, 36 students (83%) had reached or exceeded the DRA80 target, resulting in an increase in student success in reading of 32%.

Students with special needs:

The stigma attached to using a digital device such as an assistive device is eliminated because the other students are using the same technology. It goes without saying that the students are now using assistive technologies more regularly and are experiencing more success with reading, writing, organization, and oral communication. Using technology gives these students an opportunity to

	<p>experience a level of success that they would not otherwise experience. We often see students with special needs shine when they help their peers with the technology and this has a major impact on their self-esteem. In some classes, during team projects, the students organize themselves without teacher intervention, divvying up tasks and responsibilities.</p>
<p><b>Impact on Instruction</b></p>	<p>The transformation of our teachers’ teaching practices and assessment practices is the result of a system-wide effort to align ourselves with our new pedagogical and technological vision for 21st Century learning. This new vision has five components: the development of 21st Century skills, best pedagogical practices, the development of partnerships for learning, learning environments, and the integration of technology for learning.</p> <p>Since implementation of our new pedagogical and technological vision first began, we have seen the impact of our teachers’ efforts to gradually transform their practices. In fact, 95% of teachers surveyed reported that, with the 21st Century transformation this year, they had made changes in their pedagogical approach.</p> <p>The impact of implementation of the Board’s new pedagogical and technological vision on the development of skills can be seen in the following areas: communication, creativity, critical thinking, collaboration, character development, citizenship, best pedagogical practices, assessment and data collection, pedagogical differentiation, partnerships for learning, learning partnerships between students and teachers, learning partnerships between students, learning partnerships between teachers, learning environments, and technology integration for learning.</p> <p>In several of our teachers, we have seen efforts to develop students’ 21st Century skill set. We have also seen efforts to develop learning partnerships in the classroom and, by extension, in an entire school.</p> <p>We have also observed a genuine effort on the part of our teachers to integrate digital technology for learning and to transform the students’ learning environment. A few teachers have begun developing STEM (Science Technology Engineering Mathematics) education in their schools; others have begun using robotics in their learning strategies.</p> <p>Several teachers report that technology makes pedagogical differentiation easier. Access to digital technology has also enabled our teachers to triangulate assessment more effectively, because it is now easier to document evidence of learning, using video and audio.</p> <p>Several teachers are using a virtual learning environment to enable students to collaborate and offer each other feedback. They are encouraging their students to be more creative by giving them a lot of latitude in how they demonstrate that</p>

	<p>they have achieved the learning objectives. They have adopted a spiral approach for the acquisition of the strands of mathematics in authentic, real-life contexts, with the support of technology.</p> <p>Increasingly, our teachers are allowing students to choose their learning tools, topics, learning processes, and forms of expression. Several teachers report that they have a different role in the classroom—that of a catalyst for learning.</p> <p>Several teachers are sharing with their colleagues to accelerate their progress on the implementation of new pedagogical practices and technology integration in the classroom.</p>
<p><b>Impact on System</b></p>	<p>Our transformation for the 21st Century has given us an opportunity to think about our vision of pedagogy and the role that technology is going to play in student learning. With the development of our new pedagogical and technological vision, we want to define our expectations for what will inevitably be a transformation of our pedagogical practices in the classroom. By adopting a system-wide approach to pedagogical transformation in the classroom, we will ensure that these practices are sustainable.</p> <p>The development of our new pedagogical and technological vision led to the development of several work, support, and assessment tools that are aligned with best pedagogical practices. We adopted a 21st Century skills development continuum that is slightly different from the original document produced by the New Pedagogies for Deep Learning project led by Michael Fullan.</p> <p>Having a team of pedagogy coaches who have embraced the new pedagogical and technological vision for 21st Century learning is critical to our successful transformation. Intensifying and systematizing the implementation of this new vision also requires a major, sustained effort in the area of professional development.</p> <p>Each Board school is assigned a pedagogy coach who supports the school’s teaching staff in a variety of ways (coaching, modelling, co-planning, co-teaching, etc.). School principals monitor this implementation and support their staff to transform their pedagogical practices, in line with the Board’s new pedagogical vision. The teaching staff receive support from the IT team for problems around the use of the technology.</p> <p>In April, we launched our new technology-pedagogy program. The idea is to increase our ability to support our teaching staff to make this pedagogical and technological transformation in their classrooms. We also created an enterprise social network using Yammer. This web tool enables teachers to share best practices, relevant links, and relevant resources; ask their colleagues questions; celebrate their wins; and create a forum for collaboration.</p> <p>We acknowledge that there is a need to measure the impact of the transformation on student achievement more precisely. We need to define very specific indicators of success in our Board’s student improvement plan and school improvement plans and we need to develop tools for measuring this impact.</p>