Conseil scolaire catholique Franco-Nord: 2014 - 2015

Project Title	Bringing our Classrooms into the 21st Century
Description	This year, we began implementing our plan to enter the 21st century. This plan was developed during the 2013-2014 school year as a means of transforming the system so that it could better meet the needs of 21st century learners. The plan includes the transformation of learning in our schools through the implementation of a new pedagogical and technological vision for our Board for the 21st century. It also includes professional development for the student success support team so that it can more fully support the pedagogical and technological transformation happening in our schools. It also includes a transformation of the role of the IT team to recognize the ongoing work that it must do to support technological transformation in the classroom and across the system. It includes the role and responsibilities of senior officials and school principals in providing leadership essential to a successful transformation of the system. During our research initiative on innovation in the 21st century, we focused on the implementation of our new pedagogical vision for 21st century learning in five pilot schools, i.e., two urban schools and three small remote schools. Over 50 members of the teaching staff took part. We also provided the Board's student success support team with professional development so that we could more fully support our schools in this pedagogical and technological transformation. One of our objectives was to gradually implement the development of partnerships for learning, making more room for the voices of our students, the development of lifelong learning skills, and the development of student leadership. Another objective was greater awareness, and fuller implementation, of differentiated pedagogy, reflecting our students' needs, strengths, and interests. There was also a focus on in-depth learning in the classroom, fostering greater student engagement in the construction of knowledge and the development of competences essential to the 21st century: creativity, critical thinking, collaboration, communication, character education, and citizenship. Yet another objective consisted of integrating digital technology to support and foster 21st century learning. Each of our classrooms has a SMART board (interactive whiteboard). In the five pilot schools, we provided a set of six iPad tablets for K-3 classes, a set of 10 iPad tablets for 4-6 classes, and an individual tablet for each student in 7-8 classes.
Context	*Number of students*: 660 *Number of teachers*: 50 *Number of schools*: 5 *Grades/Program*: K-8
Impact on Students	We analyzed the data that we had collected through our observations, our assessments of student work, comments made by teaching staff during year-end interviews, two surveys, and the teachers' self-evaluation matrix. This analysis resulted in the following observations about the impact of the pedagogical and technological

	transformation on student learning. *Learning Partnerships* We noted that the teaching staff in the five pilot schools began implementing learning partnerships with their students. Generally speaking, the teachers gave the students more say in the management of learning and the choices that resulted from this learning. Increasingly, teachers are allowing their students to choose their learning tools, subjects to explore, learning processes, and forms of expression. The students appear to be taking greater responsibility for their learning. Interestingly, some teachers reported that their students were more open to taking risks with their learning. Generally speaking, their students were more autonomous. Some teachers offered their students greater latitude in determining how they would demonstrate achievement of the learning objectives and progress on the targeted competences. Generally speaking, we noted that the teaching staff were more strongly encouraging peer collaboration. The students were helping each other more and offering each other more feedback. We often saw students helping each other to use applications, search for information, and document their learning (audio and video documentation, presentations, virtual creations). We often saw students with special needs shine, as they helped their peers with technology; this had a major impact on their self-esteem. In some classrooms, for team projects, the students organized themselves and divvied up tasks and responsibilities without help from the teacher. We also saw more collaboration between classes in different grades in the same school. In some cases, junior and intermediate division students were sent to preschool and primary division classrooms to help the students—and in some cases to help the teacher—with the use of technology for learning. In many cases, the students explored the technological tools and then explained to the teacher how to use them for the pedagogical task at hand. In many cases, the development of learning partnerships took the form of a greater degree of student responsibility for learning, greater collaboration between learners, and a stronger student voice. *Student Engagement* Implementing new pedagogical practices and integrating technology had a marked impact on student engagement and motivation. The development of learning partnerships appears to have had an impact on student engagement; students now have a voice and can participate in the decisions that are required throughout their learning. In-depth learning often has an impact on student engagement; it fosters student curiosity. In addition, students are more motivated and engaged because the learning is more authentic and relevant to their reality, especially when it relates to their future. The ability to present their work and productions to their peers was also a motivating factor for them. Generally speaking, implementation of the new pedagogical vision appears to have had a positive effect on student behavior. Because there is more collaboration, discussion, and mutual support during learning situations, there are fewer challenges in terms of student behavior and discipline. In many cases, we saw an increase in self-esteem. However, we should point out that students having difficulty concentrating

	and paying attention appeared to require extra support to stay on task. We noted that, in some cases, the use of technology had a greater impact on boys. They often prefer to read and write using technological tools. One teacher reported that, in her class, boys with behavioral problems agreed to do tasks with technology that they had previously refused to do without technology. Implementation of the Board's new pedagogical vision, supported by the integration of digital technologies, has had an impact on student engagement and motivation. This appears to increase the amount of time that students invest in tasks and, as a result, the quality of their work. We should point out, however, that problems accessing the wireless network and limited access to websites resulted in frustration that had a negative impact on student engagement. Some students also reported their frustration in using the technology when they had technical challenges. *Student Achievement* With the implementation of the new pedagogical vision, supported by digital technology, our students seem to be handing in work that is of better quality. In our opinion, the increase in student engagement and motivation, in itself, has contributed to an improvement in student achievement. Based on our observations and analyses of student work, there were marked improvements in reading, writing, and mathematical problem-solving. This improvement in student achievement was made possible with the implementation of the new pedagogical vision, in particular, targeted pedagogical strategies supported by technology. This technology enables the students to: • Go back over their work and learn from their errors; • Use a word prediction app to improve their writing tasks; • Access digital books (such as *Bidules,* a software application for the creation of interactive computer music and multimedia*,* or *Lire-tôt*), which are of particular interest to boys; • Get more practice in preparation for oral presentations, especially for students for whom this is a challenge; • Engage in peer reading activities, using documents that are colourful and richly illustrated; • Re-work their oral presentations and the work they submit to demonstrate that they have reached the learning objectives; • Create more traces of their work; • Share exemplars, where samples of work are projected on the interactive whiteboard; and • Monitor their progress thanks to virtually instantaneous feedback from their peers and teacher. The teacher who is responsible for assessing student work confirmed that, in the three

	small rural schools, implementing the new pedagogical practices for 21st century learners and integrating digital technology helped to improve student achievement in communication, mathematics, reading, writing, and the development of work skills and habits, particularly where autonomy, collaboration and self-regulation were concerned.* We would also like to point out that learning supported by the use of technology appears to have a major impact on achievement in male students. Several teachers reported that their male students wanted to push ahead, get more information, and work harder on assigned tasks. Generally speaking, technology contributed to improved achievement in students with special needs. The stigma attached to using a digital device as a support was eliminated by the fact that all of the other students were using the same technologies. It goes with saying that when a student is able to use assistive technology more fully, he or she experiences more success in reading, writing, organization, and oral communication. With the use of technology, these students have successful experiences that they would not otherwise have.
Impact on Instruction	Based on our analysis of the data that we collected through our observations, our assessments of student work, comments made by teaching staff during year-end interviews, two surveys, and the teachers' self-evaluation matrix, we were able to make the following observations about the impact of the pedagogical and technological transformation on instruction. In our opinion, implementation of the Board's new pedagogical vision, supported by the integration of digital technology, resulted in major changes in the practices of the teachers involved. 89% reported that with the changes this year to bring the Board's classrooms into the 21st century, they changed their pedagogical approach. We saw changes linked to the development of learning partnerships in the classroom and, by extension, throughout the school. We were able to examine implementation of the practices associated with in-depth learning, which includes the development of competences essential to the 21st century. We also observed that teaching staff were making a genuine effort to integrate digital technologies for learning. We also saw staff make efforts to transform their students' learning environment. *In-depth Learning* With the implementation of the Board's new pedagogical vision for the 21st century, the overwhelming majority of teachers have made changes in the classroom. Based on our observations, we are seeing a gradual transformation of pedagogical practices toward more in-depth learning. This change is fully underway, but will probably take a number of years, even for engaged teachers. As the year progressed, we noted that several teachers were making more use of questioning to foster knowledge construction in their students. We also noted that tasks were far more authentic. A few teachers also attempted to use access to technology as a way of encouraging innovative approaches. The integration of technology also resulted in changes in pedagogical practices in the classroom. Several teachers used apps designed specifically for demonstration to help their students explain their learning process or their thought processes when problem-

	solving. Technology also made it possible to conduct larger-scale projects, still within a reasonable amount of time. *Development of Competences for the 21st Century* We were able to identify several activities and tasks performed in classrooms in the five schools that contributed to the development of these competences in our students. With the help of technology, these tasks and activities helped students make progress, particularly on the following competences: communication, collaboration, creativity, critical thinking, and work skills and habits required for character education. *The Learning Environment* We saw an increasing number of students being active and moving around the classroom. There was much more interaction between students, which meant that the classrooms were a bit noisier and seemed more chaotic. Rather than chaos, however, this was indicative of the energy the students were putting into sharing and collaborating. Increasingly, classrooms are organized to serve multiple functions, enabling students to work at their desks, on the floor, in the hall, and sometimes, outside the school building. The desks are positioned and used in a variety of ways, depending on the pedagogical goal. Increasingly, teachers are asking for multi-purpose tables instead of desks. *Integration of Technologies* Teachers are integrating digital technology for learning to varying degrees. Some are using technology constantly as a tool for learning. Some are using it occasionally to enrich a lesson or to have students perform a technology-enriched task. We noted that the complexity of the tasks performed with technology increased with the students' age and the teacher's comfort level with technology. According to our analyses, technology was used in all school subjects, with more pronounced use in literacy and numeracy. We can say that our teachers made effective use of technology this year to foster student achievement in reading, oral communication, and mathematical reasoning. In classrooms that had one tablet per students, the teacher used technology to create a schedule and digital communication tool that the students and their parents could access. This tool allowed for instant sharing of student work, timetables, important messages, and relevant news. To make the most of classroom time, the flipped classroom strategy was also used. Some teachers tried to create learning centres that used technology for enriched learning; however, this is not a common practice and will require a special focus in terms of professional development going forward. Using technology for learning appears to have facilitated certain forms of differentiated instruction. However, we will need to provide more professional development to assist teachers in recognizing opportunities for differentiation based on student profiles. This year, our evaluation of our efforts to bring our classrooms into the 21st century consisted of the administration of the self-evaluation matrix for teachers on two occasions: first, in September, to provide baseline data and second, in June, for end-of-

	year data. This matrix consists of 21 statements about our new vision. For each of these statements, the teacher had to indicate whether he or she was in the mode of discovery, exploration, appropriation or mastery. Comparing the data for September and June yielded some interesting discoveries. For each of the statements, a large percentage of teachers at all five schools reported that they had progressed to the next level or, in some cases, by several levels. This could be an indication that the teaching staff are increasingly appropriating the Board's new pedagogical and technological vision. Our teachers are increasingly comfortable with the concept of learning partnerships, with the implementation of strategies for in-depth learning, and with the integration of digital technologies for learning.
Impact on System	The focus of our efforts to bring our classrooms into the 21st century is pedagogy. We are focusing on transforming our pedagogical practices in the classroom. We will ensure that these practices endure by insisting that the transformation happens system-wide. We are also insisting that teaching staff always start from a pedagogical intention and that technology only be used to enrich and foster in-depth learning. This initiative has enabled us to develop a clear, specific vision of what transformation for the 21st century—pedagogy-centred transformation—means for our Board. This vision is shared by, and accessible for, all of the Board staff. By rallying all of our staff around this vision, we can provide transformational leadership that will result in a complete modernization of our schools and in success for all of our students. This initiative has also enabled us to develop an implementation plan that is guiding the operationalization of this vision for 21st century learning across the Board. This plan includes a comprehensive, well-defined program for professional development and ongoing support for our teachers. This will ensure that practices that integrate pedagogy and technology are of lasting value in the classroom. Clearly, developing a team of teacher consultants that have appropriated this new pedagogical vision for the 21st century will also ensure that the transformation of our pedagogical practices endures. This implementation plan deals with a vast number of elements that are essential to the success and permanent impact of our transformation for the 21st century.

NOTE: Information in the summary is taken directly from the data contained in the final project report.