

Conseil des écoles catholiques du Centre-Est: 2015 - 2016

Project Title	The Impact of Using Technology, A Virtual Learning Environment, and Pedagogy Centered on Critical Thinking on the Development of Student IT Skills
Description	<p>This is a research project to determine the impact of using technology, a virtual learning environment, and critical-thinking-centered pedagogy on the development of student IT skills.</p> <p>To accomplish this, we chose Grades 7 and 8 in a secondary school. The CODE funding was used to provide students with Chromebooks in a ratio of 1 to 1. The goal was to provide the students with access to technology so that they could use it to develop their IT skills.</p> <p>Several means were used to provide teaching staff with the professional development they needed for technology integration, in particular, the creation of a virtual learning environment.</p> <p>Training is offered across the system by the 21st Century team in order to develop critical thinking, blended learning, and digital citizenship. This team also provides support to the student exit profile leads in this school. The IT applications team provides targeted training on the various tools in the Google Apps for Education suite, including specific training on Classroom.</p> <p>The school created a 21st Century committee to coordinate the work of the project stakeholders. The goal of this committee is to ensure effective integration of technology; development of 21st Century skills for students in the entire school; and support for the CODE project initiatives for Grades 7 and 8.</p>
Context	<p><i>Number of students:</i> 342</p> <p><i>Number of teachers:</i> 30</p> <p><i>Number of schools:</i> 1</p> <p><i>Grades/Program:</i> 7 and 8</p>
Impact on Learning	<p>The goal of this research was to determine the impact of using technology, a virtual learning environment, and critical-thinking-centered pedagogy on the development of student IT skills.</p> <p>The results were validated by means of two surveys of the students and teachers. The findings of the survey in January enabled us to make a number of observations about our research question. Student feedback on the January survey and the May survey was very similar.</p> <p>The students reported that the use of a virtual learning environment really helped them to get organized and to understand the subject material. They also said that the technology helped them to be better organized, complete their assignments, and manage their time. The technology also made it easier for them to work in teams and complete their projects. Several said that they still liked working with</p>

	<p>paper and pen on some learning tasks. Some reported that they liked doing their summative assessments on paper, rather than online; others said that student supervision had to be modified to ensure that all of the students were working on the task when they used technology in the classroom. Several appreciated the possibilities that a Chromebook offered for doing research and accessing information. The students reported that the video clips on IT skills would really help them to do better research.</p>
<p>Impact on Instruction</p>	<p>With the advent of Chromebooks in the classroom, our teachers have adopted new pedagogical practices. To enable them to fully understand the IT skills and be able to incorporate instruction in these skills into their practices, we created a partnership with the library team. The teacher-librarian created 7 video clips on various IT skills and offered them in the classroom, instead of in the library. In this way, the teachers learned with the students.</p> <p>These IT skills had also been presented at a staff meeting by the teacher on special assignment from the Board. At this meeting, teachers familiarized themselves with the IT skills and with the definition of student engagement. In cooperation with Mr. Thierry Karsenti, an IT skills continuum was developed.</p> <p>Following the SAM’met event, the teaching staff adapted its approach to summative assessment. For example, one of the teachers replaced her pen-and-paper, end-of-unit assessment with a task that consisted of creating a country and its various institutions including a constitution, a currency, and a government. Twelve members of the teaching staff completed the May survey; 100% responded that adding Chromebooks in the classroom had had an impact on their pedagogical practices. Examples they gave of changes in their practices included pedagogical differentiation, the use of a virtual learning environment, assessment for learning and assessment by learning, as well as the use of digital IT skills.</p> <p>Opinions on the impact that adding Chromebooks in the classroom had had on assessment strategies were more divided. 58% reported that their assessment strategies had changed; 42% reported that there had been no impact on their assessment strategies.</p>
<p>Impact on System</p>	<p>In order to equip the teaching staff to transform the students’ learning experience and to focus on the integration of technology for learning, a collaborative session was organized to validate the definition of transformation of the learning experience. In its definition of this transformation, the Board developed 5 spheres of action, based on the research. The Board brought together 100 experts, from inside and outside the Board, in Ottawa for a half-day of dialogue on the transformation of the learning experience. This collaborative validation session was led by Michael Fullan.</p> <p>With the goal of actualizing its student exit profile and transforming the learning</p>

experience of every student, the Board has provided each school with a lead teacher for the past two years, so that it could achieve its prioritized strategic objectives. Each of these student exit profile leads submits a report for his/her respective school at the end of each year, documenting the initiatives taken for the transformation of the learning experience. These reports are shared in the virtual Google + community of the student exit profile leads in order to build the professional capacity of all staff. This community has over 365 members, including superintendents, school principals, the student exit profile leads, teachers on special assignment, and the teaching staff. This professional sharing makes everyone quickly aware of best practices in the schools. These virtual exchanges also promote reflective practice, with the goal of improving pedagogical practices and teaching strategies.

One of the best practices that Collège catholique Samuel-Genest (CCSG) has re-implemented is the SAM'met event. This is an event at the school, organized by the school's 21st Century committee, to equip students and teachers for the integration of technology for learning. Teachers offer the students a number of workshops. Other schools held similar events during the year.

We noted that one of the concerns of the secondary school principals was ensuring continuity between the experiences of students from feeder schools and their experience when they start secondary school. The students will also exert some healthy pressure, ensuring that new emerging pedagogies are applied and transform the learning experience of students and adults.

In order to support the sharing of best pedagogical practices, time is set aside for formal and informal exchanges between the student exit profile leads at lead coaching meetings that are also attended by the school principals. In this way, the professional autonomy and engagement of these key stakeholders is supported and encouraged. This time is well spent, and these exchanges are productive; they are having an impact on pedagogical practices in the schools. Through the cross-pollination of ideas, these sessions equip participants to support and mobilize other staff members in their respective schools.