

Conseil des écoles publiques de l'Est de l'Ontario: 2015 - 2016

Project Title	Transforming the Learning Environment for In-Depth Learning
Description	<p>During the initial phases of our project, we realized that, in order to be more innovative in our pedagogical practices, we needed to re-think and create physical and virtual learning environments that were conducive to learner engagement and the development of 21st Century skills. During Spring 2015, the Board focused on the ground work, identifying locations and resources for the creation of “pilot classrooms” or “3 C classrooms”, referring to three 21st Century skills: Collaboration, Creativity, and Communication.</p> <p>The primary objective of our project is to examine the impact of a physical and virtual transformation of the classroom on teachers’ pedagogical practices and to examine the impact of this new environment on student engagement, student 21st Century skills (in particular, collaboration, creativity, and communication), and student performance.</p> <p>To achieve this, the Board set itself the goal of creating two 3C classrooms during the 2015-2016 school year. Learning environments in 3C classrooms meet the following criteria: the availability of technology – Chromebooks; openness to the world – Wi-Fi and social networks; mobile, flexible learner spaces; mobile, flexible teacher spaces; vertical, erasable writing surfaces to develop their creative thinking processes; opportunities for collaboration, creativity, and communication; and support for the development of responsible digital citizenship.</p> <p>Technology plays a major role in 3C classrooms. It supports pedagogical practices and is a tool for student exploration, learning, innovation, and production.</p>
Context	<p><i>Number of students:</i> 60  <i>Number of teachers:</i> 2  <i>Number of schools:</i> 1  <i>Grades/Program:</i> Gr.7-8</p>
Impact on Learning	<p>Once again, 3C classrooms are designed to foster intellectual engagement and the development of 21st Century skills, in particular, Communication, Collaboration, and Creativity. There are seven key criteria for a 3C learning environment:</p> <ul style="list-style-type: none"> <li>• The availability of technology – Chromebooks;</li> <li>• Openness to the world – Wi-Fi and social networks;</li> <li>• Mobile, flexible learner spaces;</li> <li>• Mobile, flexible teacher spaces;</li> <li>• Vertical, erasable writing surfaces to develop their creative thinking processes;</li> <li>• Opportunities for collaboration, creativity, and communication; and</li> </ul>

	<ul style="list-style-type: none"> <li>• Support for the development of responsible digital citizenship.</li> </ul> <p>Several elements that students identify as being key to an ideal classroom are echoed in the design of a 3C classroom. Good work surfaces, chairs on wheels, and erasable vertical surfaces foster collaboration, creativity, and communication, as do a positive atmosphere and a sense of independence and well-being.</p> <p>Certain practices, such as evening emails and “chat” created by students to help each other with homework improve communication and collaboration between teacher and student and between students.</p> <p>Students report that computers make it easier for them to do their homework and write their compositions. The Google apps are conducive to collaboration and team work. Spell check functions assist with written communication. The students also use a variety of technology tools, such as smart phones and computers, to create videos related to their learning.</p> <p>The teachers agree that the students are more engaged; more likely to take risks; more likely to ask questions and to ask each other questions; have more opportunities to develop their written and oral communication skills; are more creative; and work more collaboratively.</p>
<p><b>Impact on Instruction</b></p>	<p>Different strategies were implemented to engage the students. Lessons forced the students to be curious and active and to take charge of their own learning. Assessments were authentic. These strategies facilitated a connection between the pedagogical tasks and the students’ lived experience.</p> <p>The teachers reported that, compared to last year, they used pedagogical differentiation more frequently; created opportunities for initiative-taking more frequently; encouraged interaction with the content and questioning more frequently; made more extensive use of technology resources to communicate, collaborate, and offer feedback to students; offered students a broader range of technology tools for accomplishing their work; and more fully integrated a variety of technology tools into their lessons.</p> <p>They also reported that when students submitted their assignments via Google Doc/Classroom or a D2L Dropbox, it was easier to provide them with feedback. Access to technology was also conducive to flexibility in lessons.</p> <p>To sum up, the physical environment in the classroom enabled the students to work collaboratively, be creative, and develop their communication skills on a daily basis. This environment will be further developed next year, so that learning centres can be incorporated.</p>
<p><b>Impact on System</b></p>	<p>The results show that the only 3C classroom criterion that was fully achieved was the opportunity to collaborate, create, and communicate. All of the other criteria were almost achieved.</p> <p>The configuration of the learning spaces is flexible. Vertical writing surfaces are</p>

available. When school starts, and throughout the school year, students need to be made aware of the appropriate use of devices in the classroom (e.g., cell phones), as well as why and how to use these devices.

The creation of 3C classrooms requires a lot of planning and a multidisciplinary team. The factors that facilitated implementation of the 3C classrooms were:

- Support from the stakeholders;
- The requisite financial resources;
- Pre-planning of purchases of furniture and equipment (e.g., work surfaces, student furniture, teacher furniture, tech equipment).

The factors that posed a challenge to implementation of the 3C classrooms were:

- The need for close, ongoing communication between the members of the various departments: school principals, teachers, pedagogy coaches, service managers (IT, education, technical);
- The time involved in coordinating all of the elements that involved all of the different stakeholders;
- The differences between the schools in terms of the needs and resources required to set up the 3C classrooms.

3C classrooms enable teachers to offer students more opportunities for collaboration, innovation, and communication. This change in the physical and virtual environment encourages teachers to step out of their comfort zone and be more open to change and risk-taking in their pedagogical practices. The results indicate that students clearly see the benefits of this physical learning environment and its positive impact on the atmosphere in the classroom.

The results of the project this year show that students in 3C classes take more initiative and are more entrepreneurial. As a result of this observation, the Board is moving to the next stage: creating entrepreneurship cells in its schools, in order to innovate and maintain the development of 21st Century skills. The Board is building on the 3C classroom project, with plans to implement this entrepreneurship project in seven schools during the 2016-2017 school year. Just like for the 3C classrooms, creativity, collaboration, and communication will be the focus of the entrepreneurship cells. To sum up, the project to transform learning environments into 3C classrooms this year is evolving and will now be applied system-wide through entrepreneurship cells.