

Huron-Superior Catholic District School Board: 2015 - 2016

Project Title	Teaching and Learning in the 21st Century - Delving Deeper to Continue to Impact Student Achievement Through Digital Learning
Description	<p>Our board will focus on job-embedded training and support for our classroom teachers, through the placement of several Special Assignment Teachers/Tech-Sperts - Technology and Learning. Classroom teachers and the Special Assignment Teachers will work on providing students with enhanced learning opportunities with technology, with a focus on numeracy and literacy.</p> <p>As they are supported in their classrooms (through a model where co-planning, co-developing, co-teaching and debriefing is promoted), teachers will gain the skills to include various collaborative tools into their learning tasks and assessments.</p> <p>Technology will also be used to provide students opportunities to develop 21st Century / Global Competencies, both through direct instruction and indirectly through their learning.</p>
Context	<p><i>Number of students: 4,802</i></p> <p><i>Number of teachers: 240</i></p> <p><i>Number of schools: 21</i></p> <p><i>Grades/Program: K-8 Numeracy, 9-12 all subjects</i></p>
Impact on Students	<p>Data collected and analyzed to demonstrate the impact on student engagement, learning and achievement included online tracking forms used by our Special Assignment Teachers / Tech-sperts, a classroom teacher feedback questionnaire, and the recording of teacher and student comments.</p> <p><b>1.0 Quality of Work:</b> It was observed that when learning tasks included relevant technology, with job-embedded teacher support, the quality of student work had the potential to increase. When learning tasks included technology with relevant support, approximately 40% of students demonstrated a significant change in the quality of their work, and 60% demonstrated some change. The responses that 70% of teachers noted a change in the quality of student work, where it improved or greatly improved with the use of technology and the support of the Special Assignment Teacher / Tech-spert. Our analysis of teachers and student comments provide us with an understanding that technology allows students to easily revise and correct their work, while reducing the amount of time spent on making corrections. Students found it easier to make necessary changes and were proud of work that appeared professional; this built confident learners.</p> <p><i>“Through technology-enabled collaboration, students provided peer feedback, which allowed them to think critically about their own learning and apply the feedback to improve the quality of their products.”</i></p>

*“There were many students who were able to do the work with the app, who were not comfortable during the original learning. These students would not admit publicly that they were helped by the technology, because that would admit that they were previously experiencing difficulties. The technology definitely helped students to see how translations work.”*

**2.0 Student Engagement:** In learning tasks that included technology with relevant support, approximately 60% of students demonstrated a significant change in engagement, and 40% demonstrated some change. In the Post-Support Teacher Survey, results indicated an increase in student engagement when technology was used with the support of the Special Assignment Teachers / Tech-sperts; 87.5% of teachers observed students who were previously reluctant learners were more engaged in their task with the technology.

*“Students were engaged in the use of iPads for the recording of their spring poems. Students who are normally reluctant were engaged in the activity and expressed a desire to complete a higher level of quality in their work.”*

Technology-embedded tasks allow students to find individualized paths into their learning, as reflected in these teachers’ comments:

*“I find students posing questions that they would never have thought to ask before.”*

*“I can really see where each student is at a glance and work with them, knowing that the other students are on task. It is easy to see the misunderstandings of individual students. It’s easy to make the learning very specific to individual student needs.”*

**3.0 Learning with the 21st Century Global Competencies:** As the project rolled out, it was observed that teachers became more familiar with the 21st Century global competencies. This familiarity also led to the planning of lessons and activities which provided students with the opportunity to develop some of those competencies. Approximately 75% of teachers surveyed reported that they are planning to incorporate the competencies into their future lessons. An analysis of comments from students and teachers indicates that students are collaborating and communicating in using the skills of the 21st Century. Programs such as Nearpod allow the student’s voice to be heard in real time, discussion to become richer, and students’ thoughts and ideas to build. The learning becomes more student driven, which may than have deeper meaning for students. For example:

*“I can really see where each student is at a glance and work with them, knowing that the other students are on task. Easy to see the misunderstandings of individual students. Easy to make the learning very specific to individual student needs.”*

<p><b>Impact on Instruction</b></p>	<p><b>1.0 Global Competencies:</b> Teacher recognition of the 21st Century Global Competencies increased significantly during this project. Teachers were naturally incorporating some of these skills into their daily practice, but were not necessarily aware that this was happening or the importance of it. The project gave voice to this conversation. Teachers are more aware of the competencies and have now begun to provide their students with opportunities to develop the competencies. Approximately 65% of teacher respondents in the Post-Support Survey reported developing clarity with the competencies and almost 75% reported intentional planning with the competencies in mind. A teacher commented: <i>“I see where some of my lessons were already touching on 21st C learning, but I notice in my planning, that I am thinking about those competencies now.”</i></p> <p><b>2.0 Changes in Pedagogy with SAMR Model:</b> There has been a marked change in how technology is being used in our classrooms with the Special Assignment Teacher / Tech-spert support. With the support of the Tech-sperts, teachers began to use technology in a way that transformed the learning task; they moved away from substitution and augmentation to modification and redefinition. Modification with support was evident in 54% of the activities during this project (up from 10% without support) and redefinition in 44% of activities (up from 0%). <i>“Students used the iPad app (Educreations) to identify, name, and draw 2-D shapes. Students created their shapes and presented to their peers, explaining their creation. Communication and self-directed learning were the competencies involved with this learning task.”</i></p> <p><i>“Students explored various 3-D objects in the classroom and identified the length, width, and height using non-standard units of measure. Students used the Educreations app on the iPads to document their learning (camera, voice, text). Communication, collaboration, critical thinking, and problem solving were the competencies involved with this learning task.”</i></p> <p><b>3.0 Changes in Teacher Practice and Attitudes:</b> Data analysed indicates positive professional growth among teachers. Impact on teacher practice was recognized, as 80% of teachers indicated that they are more comfortable using various devices in their classroom. Also, 70% of our teachers now use a variety of apps, online programs, and software on a regular basis. 72% of our teachers also recognized that their approach to teaching with technology had changed. A teacher commented: <i>“I am excited about the time-saving tools and assessment possibilities the new technology provides....I have learned many new ways to effectively implement technology for not only student learning, but also for enhanced assessment practices. Excellent tools to take into next year.”</i></p>
-------------------------------------	--

Impact on System	<p>It has been observed that the use of technology on a system-wide level has increased, with many system and school leaders engaged in and excited about the technology. There is greater collaboration, increased data collection and analysis of practices, and improved system-wide direction on the technologies being used.</p> <p><b>1.0 Digital Learning Steering Committee:</b> Our board established a Digital Learning Steering Committee to help set goals and provide direction on technology-enabled learning within our schools. The Digital Learning Steering Committee will continue to provide the leadership necessary to ensure we are providing our students with the best possible learning experiences with technology.</p> <p><b>2.0 Change in Practice Among System Leaders:</b> It has been noted among the senior administration team within our board that many of the new technologies being employed in our classrooms have also created changes among our system leaders. Changes in practices and organizational processes have led to increased efficiencies and collaboration across departments and schools. These shifts have had an effect on the processes and structures being used to support our classroom teachers. There is a desire to work collaboratively on projects involving the various stakeholders, while also finding efficiencies in the work.</p> <p><b>3.0 Summer Institutes for 2016:</b> To meet the needs of classroom teachers, our board will be hosting two summer institutes. The summer institutes are a direct response to requests from educators within our board. These requests are evidence that educators within our board are using technology and have a desire to increase its usage within their classrooms.</p> <p><b>4.0 Use of Technology for Professional Learning on a System-Wide Level:</b> The use of technology to deliver professional learning to the various groups within our board has become a recent area of focus. As educators become more comfortable and familiar with technology, they are more open to using some of the tools to learn and develop. These changes in the delivery of professional learning are a clear indication that the technologies being employed within the classroom are having an effect outside of the classroom. This model of professional learning is both scalable and sustainable.</p>
------------------	--