

Hamilton-Wentworth Catholic District School Board: 2015 - 2016

Project Title	Deepening Technology-Enabled Practices Among Educators
Description	<p>Round 5 is designed to further support student achievement and student acquisition of the Ontario Catholic Graduate Expectations which encapsulate 21st Century skills including: critical, creative, and innovative thinking; communication; collaboration; and ethical citizenship. The Initiative is grounded in key learnings gained through past years’ Innovative Research Projects and is in alignment with the goals identified within the HWCDSB Board Improvement Plan for Student Achievement and the overall goals of the Technology Learning Fund (TLF).</p> <p>This year’s Initiative expands the 2014-2015 Junior Divisional Innovation Research Project to include all 49 schools and 122 teachers within two research projects. Both projects are exploring how the provision of mobile technology for teachers coupled with focused support in its use, impacts the development of educator learning partnerships and instructional/assessment practices that incorporate increasingly sophisticated use of technology. Project A involves teachers from all schools within HWCDSB, while Project B is a school-based research initiative.</p> <p>Project A – HWCDSB Board-Wide Innovation Research Project</p> <p>Project participants are divided into five groups. Each group formed a professional learning community that involves participation in four collaborative learning sessions. The learning sessions incorporate basic iPad training; focused discussions on 21st Century Competencies, deep learning, and the TPACK model; lesson analysis in light of the SAMR Framework; and the introduction and sharing of various apps and web tools that support evidence based research instructional practices and deep learning and assessment practices.</p> <p>Project B – HWCDSB School-Wide Innovation Research Project</p> <p>The project cohort is comprised of teachers with varying initial comfort levels and experience in using technology to support teaching and learning. Project participants have been divided into two groups: Primary and Junior/Intermediate. Each group has formed a professional learning community utilizing three half-day collaborative learning sessions.</p>
Context	<p><i>Number of students: 3,341</i></p> <p><i>Number of teachers: 124</i></p> <p><i>Number of schools: 56</i></p> <p><i>Grades/Program: FDK-12</i></p>
Impact on Students	<p>The impact on student engagement and learning was mainly measured through observations made by project teachers and school administrators and the establishment of technology-focused teacher-student learning partnerships.</p>

Project A – HWCDSB Board-Wide Innovation Research Project

Multiple teacher respondents made mention of the following scenarios occurring in their classrooms: the students becoming the teacher, the teacher and students learning how to use the technology together, and students being supportive when the teacher made mistakes or encountered problems by offering encouragement, solutions or ideas for improvement. The technology-focused teacher-student learning partnerships that emerged through this project provided multiple opportunities for students to learn collaboratively with their teachers and to develop and apply critical thinking and problem solving skills.

Teachers also noted:

- Increased enthusiasm for learning when technology was integrated into learning tasks;
- Increased student participation and task completion when technology use was integrated into learning tasks, especially from those who experience limited success with paper/pencil tasks;
- Increased willingness of students to share their work/thinking with one another when using technology or when sharing was supported by the use of technology; and
- Greater desire from students to have their learning documented by the teacher.

Project B – HWCDSB School-Wide Innovation Research Project

The School-Wide Innovation Research Project fostered the establishment of technology focused teacher-student learning partnerships within a designated school. Teachers learned how to use technology, apps and web tools together with their students, and on many occasions were learning from their students.

Teacher participants noted:

- Increased participation and task completion from students;
- Greater enthusiasm for learning when technology was integrated into learning tasks; and
- Increased willingness of students to share their work/thinking with one another if technology was involved.

Both Project A and Project B positively impacted student engagement and the development of teacher-student learning partnerships. When students were more engaged, they were more attentive in class and more likely to complete assigned tasks. Teacher-student technology focused learning partnerships empowered students to see themselves as valuable contributors to the learning environment.

<p>Impact on Instruction</p>	<p>The 2015-2016 HWCDSB Innovation Research Initiative positively impacted teacher practice by increasing teacher comfort level in using technology to support teaching and learning, fostering the establishment of technology enabled educator learning partnerships, and supporting the development of learning tasks that incorporate more sophisticated use of technology.</p> <p>Project A – HWCDSB Board-Wide Innovation Research Project</p> <ul style="list-style-type: none"> • The greatest gains in teacher comfort were seen in: • Using technology to make student thinking visible; • Student use of technology to demonstrate their learning; • Using technology to promote learning partnerships among students; and • Using technology as a professional development tool. <p>Project involvement led to the greater use of the following specific technology-enabled practices by project teachers:</p> <ul style="list-style-type: none"> • Allowing students to use technology to demonstrate their learning; • Developing digital citizenship; and • Using technology to provide students feedback on their work. <p>It is interesting to note that increased teacher comfort with technology and technology-enabled practices paralleled greater student use of technology in classrooms. The percentage of participant lessons considered to be transformative within the SAMR Framework (i.e. Modification and Redefinition) increased by 13% over the course of the project. In addition, the percentage of lessons identified to integrate technology at the Substitution level of the SAMR Framework decreased by 14%.</p> <p>Principals indicated that teacher participation in the project sparked technology focused discussions and sharing at the school level. Sharing of project learnings and experiences were witnessed to occur during staff meetings, divisional meetings, after-school in-services, informal hallway meetings, and among same grade partners.</p> <p>Teacher-Teacher learning partnerships were also supported through the project Yammer group. This tool provided teachers with an online forum to share examples of technology-enabled practices, and to troubleshoot technical issues</p> <p>The technology focused teacher-teacher learning partnerships developed through this project modeled life-long learning/Self-Aware and Self-Directed Learning for students and helped support the development of authentic learning tasks that integrate technology for deeper learning. These partnerships also helped shift some teacher mindsets with regards to their abilities to use technology in the classroom.</p>
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	<p>Project B – HWCDSB School-Wide Innovation Research Project</p> <p>Analysis of pre and post data revealed the greatest gains in teacher comfort were seen in:</p> <ul style="list-style-type: none"> • The use of the LMS (classroom vLE) to support learning; • Using Office 365 as a collaborative tool; • Using technology to support inquiry; • Using technology to create learning supports accessible to students 24/7; • Using technology as a professional development tool; and • Using technology to capture evidence of learning to support assessment for learning (diagnostic and formative assessment). <p>Project involvement led to the greater use of the following specific technology-enabled practices by project teachers:</p> <ul style="list-style-type: none"> • Using a virtual environment to support the development of teacher-student learning partnerships • Using social media to connect with other educators to further my teaching practice <p>This enterprise social media tool [Yammer] provided teachers with an online forum to share examples of technology-enabled practices, new learnings and success stories, and troubleshoot technical issues in between scheduled face-to-face sessions and after-school hours. The growth in project teacher comfort in using technology and the positive impact of the teacher-teacher learning partnerships on teacher practice and student learning was also articulated by the school principal. She noted that mentoring and coaching empowered teachers to take risks, learn from each other and provide rich learning experiences that incorporated technology for students.</p>
<p>Impact on System</p>	<p>Actions that have resulted from the initiative include:</p> <ul style="list-style-type: none"> • Working to ensure that each school has at least one teacher to support technology-enabled instructional and assessment practices at the school level. • The consideration of the impact the provision of mobile devices for teachers has on teaching practice and student learning when purchasing technology. • The continued use of a professional development model that incorporates multiple face to face small group collaborative learning sessions over time. • The expansion of school-wide teacher capacity building focused on the development of technology-enabled instructional/assessment practices. • The expanded use of Yammer as an online forum to support board-wide learning partnerships and the sharing of technology-enabled instructional and assessment practices.