

Rainbow District School Board: 2015 - 2016

Project Title	Supporting Engagement, Student-Led Inquiry, and Problem-Based Learning in Applied, Compulsory Courses
Description	<p>This project offers opportunities to enhance student engagement, particularly in Applied/College Pathway classrooms, enhance responsive teaching strategies including assessment strategies, and enhance student communication. Teachers receive support with professional learning that explores fostering 21C skills and digital citizenship skills in students. Teachers also receive school sets of iPad Minis for application in student learning, and receive support in the classroom from a teacher Learning Coach as they work toward engaging learners and collecting evidence of student achievement in a 21C classroom environment. The end goal for the project has three elements: 1) PROCESS: a deeper teacher understanding of modern classroom teaching and learning strategies; 2) PRODUCT: a repository of exemplars of teaching and assessment strategies, lessons, and other materials developed through collaboration and innovative work with students; 3) SUSTAINABILITY: broadening the network of educators working with technology in their courses, and deepening the commitment to working collaboratively with peers to share resources (hardware, as well as artefacts, exemplars, project ideas, etc.)</p>
Context	<p><i>Number of students: 1,500</i> <i>Number of teachers: 22</i> <i>Number of schools: 8</i> <i>Grades/Program: Gr. 9-10 Applied pathway compulsory courses; Gr. 11 College pathway compulsory courses</i></p>
Impact on Students	<p>To ensure that project goals were being achieved a baseline or reference point was established through extensive data collection both pre-project and post-project. Data collection methods included various surveys. The data from these surveys provided the opportunity for analysis of the project's impact on attitudinal, achievement, and transferable skills measures of growth.</p> <p>Analysis of the student feedback shows that the results from round 5 are consistent with the previous findings from rounds 2-4. The student data showed that as a result of their participation in the 2015-16 TLF 21st Century Learning Initiative:</p> <ul style="list-style-type: none"> • Students have improved attitudes towards their subjects • Students are more confident in their abilities and the quality of their work • Students are more comfortable using various technologies as learning tools • Students are more engaged in the classroom • Students perceived achievement levels improved as a result of the project

	<p>In an attempt to further support anecdotal data from students (and teachers) that showed an increase in achievement, pass rate data has also been analyzed from the project starting year in 2012-13 for grade 9 and 10 mathematics (these courses have been included in every innovation project). Since 2012-13 pass rates for these classes have increased 2.2%.</p> <p>The quality and quantity of student work during the 2015-16 project was very high [and] show critical and creative thinking, communication, and digital citizenship.</p>
<p>Impact on Instruction</p>	<p>Throughout the project teachers received support through numerous professional learning opportunities that explored fostering 21C skills and digital citizenship skills in students. Support in the classroom from a teacher Learning Coach was provided as they worked toward engaging learners and collecting evidence of student achievement in a 21C classroom environment.</p> <p>Analysis of the teacher feedback shows that the results from round 5 are consistent with the positive results from rounds 2-4. Analysis of the teacher data showed that at the end of the project:</p> <ul style="list-style-type: none"> • Teachers are very satisfied with the technology and all of the classroom supports provided • Teachers noticed that student engagement had increased specifically for ‘at risk’ students • Teachers are now able to improve differentiation for individual learners • Teachers noticed that their students’ confidence, abilities, engagement, and achievement was improved • Teachers are now better prepared to effectively teach with 21C technology and share their knowledge with peers at Rainbow DSB <p>During the innovation projects teachers have created numerous resources such as engaging lesson plans that use 21C technology. Rainbow DSB recently began using Google Applications for Education (GAPE) where every student, teacher, and administrator has been given an account to access these applications. This shareable resource, which is searchable by grade and subject, will be an effective tool for increasing teacher-to-teacher learning partnerships at Rainbow DSB beyond the already strong relationships forged between project participants during the project.</p>
<p>Impact on System</p>	<p>Collaborative learning activities using 21C technology have been scaled up greatly since the starting year of the innovation project in 2012-13 when only 7 mathematics teachers and 190 students participated. Thousands of students and dozens of teachers across all compulsory teaching subjects have now been able to take part in the project. By expanding to all subject areas Rainbow DSB has helped to foster the system-wide culture change.</p>

	<p>To provide all students and teachers the proper technological tools to positively impact student engagement, learning, and achievement Rainbow DSB has moved towards providing a more diverse range of options of technology in its schools. Along with the core purchase iPads, Chromebooks are now being implemented across Rainbow DSB schools. This complements the significant infrastructure upgrade and the recent adoption of Google Apps for Education, which now permits more flexible, open, and reliable connectivity.</p> <p>This innovation project has also led to the development of leaders of teaching with 21C technology (champion teachers) in the classroom. Multiple teachers from every post-secondary school have gained knowledge and developed skills through their participation in the project. They have been able to transfer their new knowledge and skills to other teachers and administrators throughout the board.</p> <p>Concurrent to this innovation project Rainbow DSB has made a shift towards Google Applications for Education (GAFE). This has created an opportunity for scaling through the efficient sharing of teacher resources created during the innovation project through GAFE for all teachers in Rainbow DSB.</p> <p>Rainbow DSB is in the middle of a system-wide fundamental philosophy shift towards 21st Century learning and teaching. The TLF 21st Century Innovations projects have paved the way for teachers and administrators to build capacity in the board. As a result of the TLF 21st Century Learning Initiatives, Rainbow DSB has built great potential for a system-wide sustained increased in student engagement and achievement.</p>
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