Limestone District School Board: 2014 - 2015

Project Title	**Going Deeper: Embedding technology in math and literacy**
Description	The Limestone District School Board Project, supports Board initiatives in elementary mathematical instruction in Grades 3 through 6, as well as literacy skill development in English courses in Grades 9 and 10. Technological hardware (iPad and storage solutions in Grades 3 – 6 and Chromebooks in Grades 9-10), software, on-going professional learning and continued pedagogical support is being provided to selected classrooms, based on equity of access to mobile technology, educator mindset, student learning and well-being. The Secondary component of the Project will be implemented beginning in Fall 2015.
	Classroom teachers in the 3 – 6 math project are being provided with a classroom iPad and release time for professional. During initial sessions the emphasis is on building device efficacy and knowledge, along with best pedagogical practices, as the Connected Technology Team sets the expectations for mobile learning through digital citizenship and digital literacy classroom work. An additional six iPad devices will be integrated into participating classrooms, for a total of seven iPads to allow for 21st Century technology-enabled practices in mathematics.
	Technology will be the tool to allow students to make their thinking visible, demonstrate creativity and innovation through research-based professional learning opportunities focused on sound pedagogy and grounded in the SAMR model. Technology enabled collaboration of student efforts, teacher-student learning partnerships, assessment practices to support deep learning pedagogy and learning partnerships among our educators is a focus for this project.
Context	*Number of students*: 1250
	Number of teachers: 57
	Number of schools: 13
	Grades/Program: Grades 3-6, 9-10
Impact on Students	This year's work with Collaborative Inquiry groups in a co-plan/ co-teach/ co-reflect format has strived to assist teachers in seeing the deep learning connected with technology integration in the classroom. By focusing on mathematical pedagogy, technology as a tool for collaboration, communication, curation, global connections and creativity has helped teachers to see increased engagement in their students. By guiding teachers to design authentic learning tasks that build mathematical competencies, and allowing students to make choices in how they demonstrate their learning, students become empowered, self-directed learners. Educators who are redefining their practice with authentic learning opportunities that extend beyond the walls of the classroom are enabling opportunities for increased communication, creativity, collaboration, cultural awareness, and citizenship – and engagement is extremely high.
Impact on Instruction	In Round 4, collaborative efforts from the Program, Connected Technology and Information Technology Teams, along with educators throughout the system allowed for shifts in practice and instruction. Having a strong vision that is shared and communicated throughout the system is allowing for advancements in practice, pedagogy and

technology implementation. A shift in mindsets within schools, due to strong leadership, is occurring – however, there is still much work to do. Learning Technology Teachers, along with other champions of teaching and learning on staff, are in each school and are able to support their colleagues, coupled with released professional learning from Program Team and the Connected Technology Team. School initiated learning is occurring at staff meetings, during collaborative inquiries, at personal interest teacher technology 'clubs', collaborative team teaching, empowered student experts and student technology clubs – all of which are shifting our culture of learning.

Feedback from educators indicates that the amount and quality of professional learning: face-to-face learning sessions, video conference sessions, collaborative inquiries, co-planning/co-teaching/co-reflecting sessions, and support through social media, e-mail, Lync and FaceTime is greatly impacting teacher practice to embed technology into daily practice.

Qualitative data gathered through teacher interviews, surveys and conversations informs Limestone that a shift in pedagogical practices is transpiring. By providing relevant professional learning and authentic examples of deeper learning in math and literacy throughout the Board, we are creating a steady transformational shift in classroom practice.

Impact on System	This project contributes to LDSB system scaling and sustaining of pedagogically-driven, technology-enabled practices. Our goal is to continue the progress we have made to deepen the power of our innovation model.

All invested parties (teachers, students, parents, administrators, trustees, community partners) are recognizing the power of technology for connecting to experts, creating global connections, collaborating with classrooms and as a source of professional learning which allows for new learning partnerships.

In order to make our pockets of innovative deep learning sustainable over time and space, we need to create more and more leaders in all facets of our District. We now have voluntary Learning Technology teachers in each school who receive professional learning on technological knowledge and pedagogy to assist their school in effectively embedding technology into daily practice. As we have moved from a computer lab setting in each school to a collaborative culture where technology is integrated with the point of learning, schools need assistance to shift their practice towards this type of learning as they begin to abandon traditional ways.

Our Connected Technology and Program team have been deeply involved with Collaborative Inquiries, with a focus on math and literacy, to help support new learning in a commitment to make change happen.

Maintaining consequential change over substantial periods of time requires teachers to see the relevance in technology integration. Those who are embracing technology for deeper learning are called upon to lead professional learning for their colleagues at staff meetings, learning series workshops, Summer Institute learning, and Board initiated workgroups, as we grow capacity from within, rather than using a top-down model. |

NOTE: Information in the summary is taken directly from the data contained in the final project report.