Thames Valley District School Board: 2014 - 2015

Project Title	Cloud-Based Collaboration and Inquiry
Description	Our inquiry focus question, "How do D2L and GAFE facilitate c***ollaborative inquiry***?", was designed to get teachers thinking about what collaborative inquiry looks like in their classrooms, and have them consider how D2L and GAFE can help them to facilitate this. There were 15 Chromebooks provided to each of the 94 schools to help support them in the use of technology. They were also provided with a cart to store and charge these devices and to allow for easier mobility. These 94 schools were divided into 5 groups of 18-20 schools. Each of these groups were together for 1 full day between March 5 and March 12, and then were further subdivided into small groups of 4-6 schools for 2 additional half-day sessions in April/May and May/June. These days were used to provide teachers with the knowledge they would need to help facilitate collaborative inquiry in their classrooms. It also afforded them an opportunity to reflect, collaborate, plan and share amongst schools and each other in regards to collaborative inquiry and the technology being used in this project. The 5 mentors from the Fall Project (Round 3) worked with 10 newly identified teacher mentors who were participants in the Fall Project to help ***build leadership capacity.*** From there, the idea was that the 3 teachers from each school would help to build capacity in their own school for the purpose of growth and sustainability. The inclusion of Instructional Coaches and Subject Learning Coordinators in the project was an intentional way to help schools grow and sustain this new learning, and offered teachers additional ***in-class instructional supports*** in the areas of collaborative inquiry and cloud-based computing. The work done in GAFE supported teacher-teacher, student-student, and teacher-student collaboration across schools and in classrooms. GAFE also naturally supported the SOLE classroom environment that promotes collaborative inquiry and teachers and students working together. In addition, teachers were also asked to monitor one student throughout the project - a 'marker' student - for the purpose of determining student engagement.
Context	*Number of students*: 7,050 *Number of teachers*: 282 *Number of schools*: 94 *Grades/Program*: All Grade and Subject levels - both elementary and secondary
Impact on Students	Each teacher in the project chose to follow a 'marker' student throughout the project. Observations were gathered and shared at the Mid-Project Session as well as the Wrap-up Session. Findings include: • Students are more engaged when doing inquiry-based tasks and when using technology • Students who typically don't participate or who are unmotivated are now producing some results

	• Student 'tech' leaders are emerging - some students are finding increased opportunities to lead as a result of their interest in the use of the cloud-based AND mobile computing options Some ideas related to "impact on learning": • Students are taking more risks with their learning. • There is a noticeable increase in student engagement when using the technology and the inquiry-based approach to learning. • There is more collaboration in the classroom (student-student, student-teacher).
Impact on Instruction	There are two main areas that have impacted teacher practice/instruction through the project: 1. Teachers have increased their knowledge and use of Google Apps for Education as a way to collaborate (teacher-to-student, student-to-student) and share their learning. 2. Teachers' knowledge of inquiry-based learning has increased as a result of this project. Their confidence has increased in terms of asking BIG questions and allowing students the opportunity to guide their own learning. When we started the project, most teachers (73%) rated themselves as average or above average in their knowledge of inquiry-based learning. However, only 55% of teachers rated themselves as average or above average when it came to self-assessing their knowledge and application of cloud-based computing in the classroom. At the April Regional session, 87.2% of teachers rated themselves as average or above average in their knowledge of inquiry-based learning (up 12.2% from the Kick-off Session). Over the same time period, the number of teachers rating themselves as average or above average when it came to their knowledge/use of cloud-based computing rose to 80.1% (up 25.1% from the Kick-off Session). Within the first 4-6 weeks of the project, a significant impact on teacher practice in the realms of inquiry-based learning and cloud-based computing were already becoming evident. [P]articipants were also asked to assess their own "growth" from the Kick-off to the Mid-Point (April Regional Session) and then from the Kick-off to the Wrap-Up (June Regional Session) as it related to inquiry-based learning and cloud-based computing. Observation: In the span of 4-6 weeks, almost 40% of respondents (out of 247 respondents) indicated that their knowledge of inquiry-based learning has increased significantly. Virtually everyone in the project noted 'some' growth. Due to only secondary school participation at our wrap-up sessions, we were unable to gather results across all 94 schools that would provide information on growth from the March Kick-off to the June Wrap-up Sessions. However, the following data was taken from the 18 secondary schools (n=38) participating in the June Wrap-up. Observation: In the span of about 10 weeks, the 'growth' in understanding/use of cloud-based computing is showing that the secondary respondents have seen significant growth (as compared with the group at the project mid-point).

	Some ideas related to "impact on instruction": • Teachers need time to feel more comfortable with the technology and inquiry approach but there was some acknowledgement that students can help to take a lead in this area. • Teachers have concerns about 'curriculum coverage' and 'assessment' related to inquiry-based learning. • It is difficult coming up with good "BIG" questions (for both teachers and students).
Impact on System	Both Rounds 3 and 4 of the CODE project have provided valuable insights that have helped to inform and shape directions regarding the roll-out of Google Apps for Education on a system level, the purchase of mobile technology, and the movement to SOLE classrooms and Learning Commons models. We have a large percentage of our TVDSB schools embracing the idea of SOLE classrooms and looking for ways to operationalize this in classrooms where teachers are indicating readiness. The IT department has been instrumental in supporting the introduction of Chromebooks into our system since September 2014. This directly supports the CODE Project, as well as the TVDSB ICT Strategic Plan (2015-2018) to increase the use of mobile technology in schools. We now have over 4000 Chromebooks throughout the system. To ensure a more robust infrastructure to manage the wireless needs in schools, IT has taken two critical steps. First, they introduced the TVDSB Wireless network in the fall of 2014. Second, IT is working with a small number of schools to update their network infrastructure (Internet and Intranet) to gauge improvements that will then be applied on a large scale across the system. In the June Wrap-up Session, secondary teachers who attended were asked to develop a Plan of Action for their school - essentially, they were tasked with discussing how they will scale-up the approaches to inquiry-based learning facilitated by cloud-based computing that were part of this project.

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