

Avon Maitland District School Board: 2015 - 2016

Project Title	Next Generation Learning
Description	<p>Our TLF funding has primarily been used to support our Next Generation Learning initiative, which has put mobile technology – specifically iPads – into the hands of all teachers and all Intermediate students across our District, and more importantly has created the catalyst that is transforming teaching and learning for both our teachers and for our students.</p> <p>Our Next Generation Learning initiative affords students the opportunity to personalize their learning experiences, and collaborate both inside and outside of the school day. Students are developing a digital skill-set required to support this type of learning, which includes independent file management skills, understanding of how to create and maintain an appropriate online presence, and advanced digital communications skills. Students are redefining learning in this personalized environment, by creating systems for organization, management, and collaboration that are individualized and work to support their learning style.</p> <p>In Avon Maitland, we have invested in Teacher Technology coaches, elementary (itinerant) and secondary (job-embedded) teachers, assigned to schools to support tech-enabled teaching and learning. Professional development days have been dedicated to both ETFO and OSSTF members, annually, with a specific focus on technology and changing pedagogical practice. Furthermore, teachers have been afforded opportunities for networked learning both during and outside of instructional time, and during the summer, where they have had opportunities to dig into topics such as blogging, challenge/problem based learning, and foundational skills training.</p>
Context	<p><i>Number of students: 4,000</i></p> <p><i>Number of teachers: 280</i></p> <p><i>Number of schools: 29</i></p> <p><i>Grades/Program: Gr.7-10</i></p>
Impact on Students	<p>By providing Intermediate students with their own personal, take home iPad, we have been able to ascertain a number of key areas of impact. The method for collecting much of the measure of impact was through several phases of a research project, undertaken by Dr. Michelle Searle, and her team, based out of Western University. The most recent phase of the research in the study was aimed at developing a more thorough understanding of the impact of the project, specifically with regards to the areas of inclusion, and assessment.</p> <p>The result of these deeper conversations within the research project resulted in evidence that students are taking more ownership of their learning which has</p>

	<p>directly impacted students’ engagement. Qualitative evidence was gathered from the study to indicate that students are developing their higher order thinking skills as a result of the influence of the iPads, as evidenced in changes in the student outcomes and products. Students reported regular communication with other students in their classes and school, as well as their teachers who provided supports and feedback both during and outside of regular class time through apps and other electronic forums, made possible by the iPad. The ability to connect with others outside of the regular school day has been a particularly impactful change for students, and has allowed them to continue to learn in ways that were not previously available to them prior to the provision of mobile technologies. Parent surveys corroborated this observation as more than 70% of respondents indicated that they have observed learning happening with their children, on the devices, after school hours.</p> <p>Student creativity was supported by the devices, and changes in the ways that students have been able to share their learning. By providing a wider variety of ways for students to share their learning, and moving away from traditional paper and pencil tasks, students can creatively share learning in many ways – visually, orally, or in an engaging multi-media format – all of which were much more difficult prior to students having access to the technology. Students are able to create products that reflect their strengths, their interests, and a truer reflection of their learning, especially in cases where they may have other difficulties sharing these, such as a learning disability, or the like.</p> <p>Differentiation is much easier through the technology, and the work can be shared more readily with both the teachers, and other audiences through social media, blogs, and other communication outlets, providing a much broader and richer audience for students. Student are collaborating more as a result of the technology, and not only with students in their classes, but with other across the district, and the rest of the world. With the introduction of challenge and problem based learning in some classrooms, technology is a vital link to others who are working together to learn more about, and ultimately develop solutions for local or regional problems or concerns.</p> <p>Student collaboration is important, but so too is collaboration between students and their teachers. Students are reaching out to their teachers outside of the traditional structures of school, and extending the learning beyond the regular school day.</p>
<p>Impact on Instruction</p>	<p>While we have identified areas of considerable impact on students, it is possible that there has been greater impact over the past year on teacher practice. Teachers voluntarily participated in several areas of research, and were deeply engaged in sharing their stories, and the evidence of change in their own and</p>

their colleagues' practice. One important change that was articulated by a number of participants indicated greater frequency and comfort with co-teaching, co-planning, and participation in coaching opportunities in elementary and secondary. Teachers were more comfortable connecting with one another and learning about the changes in pedagogy and technology together. As a result of the collaboration between teachers, there were many strategies that were shared, and reports that many more teachers were using differentiated instructional strategies to meet the needs of their learners in their classrooms.

In the past, teachers would have visually evaluated their students and given oral or written feedback, but in this new task, students were responsible for gather examples of their progress, reflect on their own skills and present them in a way that demonstrated improvement and learning over time. This task would not be possible without the devices students were provided, and especially not possible if the teacher had not begun to differentiate the types of tasks and products required of students, using technology enabled learning strategies.

Teachers reported a change in their perceptions and practices around assessment. With more frequent collection of data, teachers reported a greater ability to impact instruction. They gathered more documentation using their technology, and recognized an increase in quality and quantity of the materials that they were collecting. By providing a central hub for sharing work and feedback, the communication between both groups became much more timely. Teachers also indicated that there were more diverse assessment practices being employed in classrooms, because they had a better idea of both assessment, and how to leverage the technology to support assessment. Teachers indicated that they appreciated the increased visibility of learning that the devices were able to provide for students and for themselves. When tracking growth over time, teachers and students could use a variety of tasks to measure movement.

Where teachers have embraced the devices, the learning in their classrooms is more student-centered, often employing concepts such as project or challenge based learning. Another area where there has been significant impact on teachers is the change in the number of our staff who have been sharing their work both within and outside of our district.

Things have grown and developed as a result of having teacher technology coaches released in both elementary and secondary panels to support teacher learning with regards to leveraging digital technologies in their classrooms. [W]e also have a number of staff who are presenting the work that is being undertaken in our system at provincial and national conferences, impacting the learning and thinking of others outside of our system.

<p>Impact on System</p>	<p>In Avon Maitland, we have identified a strategic direction that states: “If we transform teaching and learning in AMDSB, through the consolidation of effective pedagogy, which leverages the use of technology and learning opportunities that explore the Student Outcomes of creativity, communication, critical thinking, collaboration and problem solving then our students will demonstrate improved achievement in literacy and numeracy”. The work that has been undertaken and supported by the Technology Enabled Learning Fund has directly impacted the success of the strategic plan in our system. The purchase of common devices for all students in grades 7 to 9 in our system has provided the platform for students, teachers and administrators to leverage digital technologies in their teaching and learning.</p> <p>Several sites in our system have been working for several years on using technology to capture, organize, and share rich descriptive feedback with students in a digital environment. Student learning and understanding has grown significantly in these sites, as evidenced by qualitative and quantitative measures, and these successes are now being shared more widely across our system. In addition to central staff, there has been a huge increase in the number of regular classroom teachers who are willing to share their expertise and experiences with others by supporting professional learning opportunities. In the past, system professional development days with a focus on technology enabled teaching and learning were supported primarily by experts from outside of our district. Over the course of the past two years, teachers within our system have replaced experts from afar as the primary source of support for teachers and other staff within our system. The breadth and depth of offerings would not have been possible even two years earlier, and is a testament to the growth in expertise and confidence with the technologies and the pedagogical practices found within staff in our district.</p> <p>Senior leadership in Avon Maitland have, by explicitly referencing leveraging technology in the strategic plan, made the support of teachers and students through digital tools a priority. Professional learning opportunities, such as system wide PA days, have been established to share the learning with all staff. Additionally, funds have been provided to support four full time elementary technology enabled learning coaches, and ten secondary coaches who are released for some of their teaching day to support the work that is being done in classrooms. Requests for coaching supports have been steady in all schools, but there has been an increase in the number of requests for support from elementary teachers whose students are not directly impacted by the Next Generation Learning personalized iPad deployment. This is a very positive sign that despite not having individual devices, teachers with younger students are recognizing the potential of a variety of technology enabled learning strategies</p>
-------------------------	---

and structures to support and positively impact the learning of their students. Beyond the direct instructional supports that are offered to staff and students, informed by local and international research findings, senior administration has provided opportunities for members of multiple stakeholder groups to convene sessions, providing release to allow groups of teachers, consultants, administrators, school support staff, and a variety of others for a Technology Advisory Committee, to investigate issues and concerns that may exist within the system. For example, the need for a comprehensive digital citizenship program was raised by the group, and since that time, system level staff, in consultation with students, teachers and community stakeholders, have developed a program that will be implemented in schools in the fall, across all grade levels, with supports for both teachers and students.

As a result of an earlier phase of research, stable internet access through wireless access points was identified as a barrier to expanding the project within schools, as teachers and students reported inconsistent connectivity, which limited the effectiveness of the tools provided to them. Immediately after receiving the recommendation to expand the capacity of the wireless connections in schools, Avon Maitland technicians installed several hundred access points in schools. The feedback since has been positive, and connectivity is no longer a barrier to scaling the project within the system.