

Bruce-Grey Catholic District School Board: 2015 - 2016

Project Title	Scaling Forward with Modern Learning at Bruce Grey Catholic District School Board
Description	<p>Our project centered around hubs and concentrated on our Board Math Goal. “Students are able to communicate their math thinking creatively and confidently through the processes.” Teachers met in at least 3 hub sessions, in the course of the year with in-between sessions in their school with either an Instructional Coach or the Math Consultant. Teachers collected evidence of student learning through observations, conversations and products from their students as they worked through technology-enabled math learning and also interdisciplinary learning through technology and the 21st Century Competencies. Teachers also completed a continuums of learning, where they reflected upon what professional learning happened in the sessions and their intended next steps. This initiative has provided us with the opportunity to focus on student thinking and their ability to communicate their thinking.</p> <p>Certain apps such as Educreations and Explain Everything have given students a means of communicating their thinking and the teacher is able to follow the student’s thought process as their explanations.</p>
Context	<p><i>Number of students:</i> 330  <i>Number of teachers:</i> 15  <i>Number of schools:</i> 7  <i>Grades/Program:</i> JK/SK, Gr.2/3, Gr.4/5, Gr.7/8, Gr.9-12</p>
Impact on Students	<p>This year our project centered around hubs and concentrated on our Board Math Goal. “Students are able to communicate their math thinking creatively and confidently through the processes.” Teachers collected observations, conversations and products from their students as they worked through technology-enabled math learning and also interdisciplinary learning through technology and through the 21st Century Competencies. This initiative has provided us with the opportunity to focus on student thinking and their ability to communicate their thinking. With students having the tools to help them explain their thinking, the level of engagement has increased and as students have become more engaged, we are starting to see achievement rise as well. Through collaboration with peers in the classroom, students are using math manipulatives (both digital and not) to help them explain their thinking and they are recording this evidence using iPads and apps on the iPad too. Certain apps such as Educreations and Explain Everything have given students a means of communicating their thinking without having to stress on writing in their math book or standing in front of the class, plus the teacher is able to follow the student’s thought process as their explanations are recorded as they explain orally.</p>

	<p>Students participated in skype lessons, which greatly increased the level of engagement in math classes, as they were excited to talk to students in other buildings through skype and also to ask questions of other learners. The exciting part of the skype lessons was seeing the students explaining their thinking to others confidently and creatively (which directly links to our board math goal). The communication between students and with student to teacher has increased and self-directed learning that is evident in these spaces is certainly having us re-think teaching and learning as we move forward. Students are becoming the leaders in their own learning and deciding the direction they need to take in terms of their own learning.</p> <p>We conducted a math survey at the beginning of the year for students and we asked them if they used manipulatives to help them solve problems and also if they could explain their thinking in math. For our primary students, in the fall 37% said that they could explain their thinking in math and this has now gone up to 39% who feel they can explain their thinking.</p>
<p><b>Impact on Instruction</b></p>	<p>Professional learning this year has been divided into hub sessions and each hub has focused on the board math goal. Here, teachers met in at least 3 hub sessions, with in-between sessions in their school with either an Instructional Coach or the Math Consultant in between the hub sessions. Teachers learned how to triangulate the collection of their evidence on student learning according to the Growing Success policy. They also used student work to guide their next steps and moderated student work at each session. Through the use of technology tools, teachers were able to collect video evidence and pictures to come back to the hub sessions. Using the video and picture evidence, teachers participated in the process walking through a protocol for pedagogical documentation, which supported their professional learning as to determine next steps for students and be able to look at the student learning through an asset model lens.</p> <p>Teachers have also taken responsibility for their own professional learning, and some have started blogging on their learnings around innovation. This is considered a great success for innovation and our project centered around modern learning, as teachers and leaders are beginning to rethink teaching and learning. Over the past couple of years with the CODE project, we have been focused on getting tools in the hands of students. Now we are seeing the benefits of focusing on pedagogy and staying focused on a common goal through our learning sessions. Now teachers are ready to take some of the tools and use them to rethink teaching and learning in their classrooms. Teachers are also rethinking assessment as they move forward in using the COPS template to collect evidence on student learning.</p>

<b>Impact on System</b>	<p>This year, our organizational structure focused around professional learning in hub sessions in order to set a focus of working towards the board math goal.</p> <p>We also focused on IT through our Strategic Plan and will continue to address at the system level for both sustainability and moving forward with 21st Century competencies. [W]e have people who sit on many committees and work in different capacities, who are able to see links and embed our plan of scaling forward with modern learning within their learning hubs. A collaborative approach allows us to all work toward the common goal of improving students' ability to communicate their math thinking through the processes.</p>
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