Evolution of inquiry based learning at Ardagh Bluffs Public School

Or

How and why you must implement inquiry based learning

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Executive Summary: The purpose of this paper is to push, drag and encourage teachers, teacher librarians and administrators to use inquiry based learning throughout the curriculum. The evolution of inquiry based learning at Ardagh Bluffs Public School demonstrates that 'Just Starting' can create a movement of deeper learning, and engaged students/teachers that spreads throughout a school and across the curriculum.

Justin Weller, my teaching colleague concisely says, "If you have an idea, try it. Then review with EVERYONE involved to make improvements. This includes administration, staff, parents, but more importantly by far, review with the students and really listen to their ideas. You never know where it may lead." Actually, Mr. Weller does know, it leads to "purposeful teacher development, resilient and caring students and supportive administrative leadership."

Timeline details what teachers, students and administration did over five years.

Essential learnings and advice highlight what will make this work in your school.

Note: student and parental permissions were granted for all photos, videos and student names.

Timeline:

Year one, 2010-11

Ardagh Bluffs opens September 2010

- 30 grade 7 students from a grade 7 class and half of a 6/7 split class do Heritage Fair Projects.
- Grade 7 teacher, Justin Weller confines projects to time period of History curriculum (Settlement of New France to Rebellions of 1837-38).
- Teacher librarian, Greg Harris opens projects to have something to do with Canadian Heritage.
- Students to create and answer four inquiry questions.
- Principal, Jackie Kavanagh assesses top student projects to select which students move on to Regional Heritage Fair.
 - * my purpose was to connect our principal with teacher and student learning
 - * Mrs. Kavanagh reports most students did not connect their topic to Canadian heritage ... oh!

Lessons learned:

- * very difficult to create inquiry questions with and without teacher support
- * very difficult to answer the questions (reduced to one or two questions)
- * students did not have the necessary research skills and thought processes to be accomplished in written inquiries
- * students saying they are on track is NOT evidence that they are
 - ** there were terribly done projects, e.g., <u>Justin Bieber</u> project, evidently he has 10 billion fans some from other planets? and 100,000 people have the same name!



Justin Bieber is a amazingly popular at the age of 18! He has more than 10 000 000 000 fans and 100 000 people have the same name. Justin Bieber is alot smarter then other teens he is not hanging around people on drugs and he is always protedcted by his mom. He will most likley be just as popular in 10-15 years as he is now because he said he wants to do what Usher did with him and help start someones elses

- Most students had nice looking projects that recounted reliable facts:



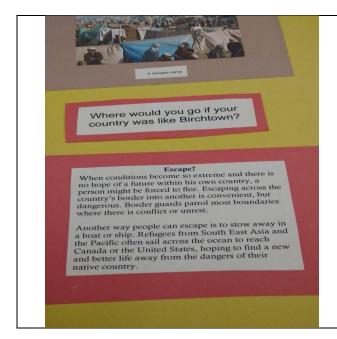


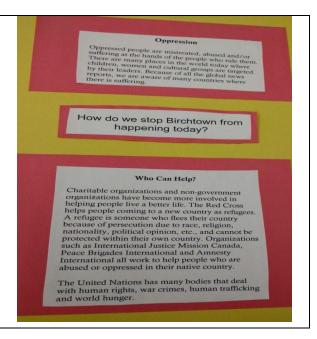


- This was the breakthrough ...

Matt's project on <u>Birchtown</u> - (Black Loyalists were sold a promise of bountiful farmland, yet they received fields of rocks, poor soil and trees and were discriminated against and treated horribly) - was our first and only project with true inquiry questions and answers. During Simcoe County Regional Museum Heritage Fair evaluations, a judge talks with a student and moves on. Matt and his project had seven judges gathered around. WHY? His project went beyond recounting facts. With the inquiry questions, "How do we stop Birchtown from happening today?" and "Where would you go if your country was like Birchtown?" Matt's answers interested others and resonated - orally, his answers were even deeper and he reflected genuine interest. It was an award winning project. It became a prototype for developing inquiry in our students ... and teachers.







Mr. Weller and I debriefed to figure out how to improve our students' learning experiences:

- Students need support/scaffolding/modelling throughout their work (research finding information and determining usefulness/reliability, organizing writing for
 an audience, creating inquiry questions and using information to support
 inferences and answers.)
- Backward plan to set student conference dates (students show their work, discuss understandings, questions, lead conversations so students can reflect (metacognition).
- Clearly state that students MUST demonstrate how their project was important to Canadian Heritage (this became the default/required inquiry question).
- Students could answer inquiry questions orally but not in writing → so at the start of the school year, model this with discussion and writing, then gradually release responsibility to students to develop their ability to reason in writing.

Year two, 2011-12

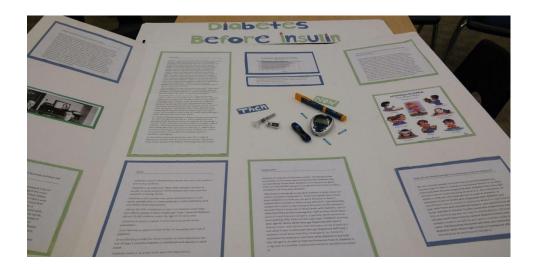
Mr. Weller and I presented at a fall staff meeting \rightarrow a few more teachers joined in

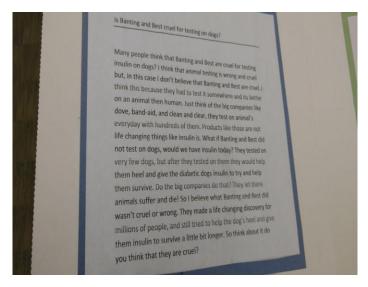
- I started a <u>Student Heritage Fair website</u> to provide specific websites to focus students on using reliable information rather than spending time finding information.
- Mr. Weller and 'new' Heritage Fair teachers began inquiry modelling in the fall.
- Some teachers and students had failures. Please see video >> Mason (Kim Campbell)
- More students were able to write/answer excellent inquiry questions.
- Some teachers allowed projects that had something to do with Canadian heritage.
- Carolyn Hilmer (Grade 8) and I confined projects to comparing 1900s to now this allowed an element of student choice, but it was not a wide open choice.
- Some teachers **BOUGHT IN** because projects were useful for reporting in Social Studies/History and Reading, Writing, Oral Language and Media Literacy.

Year three, 2012-13

Mr. Weller, the 'new' teachers and I chimed in at the fall staff meeting.

- We showcased failure and brilliance; Karyssa's <u>Justin Beiber</u> from the year before (please see page 2) turned into Diabetes Before Insulin.





Grammar was still not a strong suit; title, <u>Is (sic) Banting and Best cruel</u> <u>for testing on dogs?</u>

However, the embarrassment of Beiber led to a project of deep personal interest, Karyssa's brother is diabetic and she loves him. She made the point that testing to save lives is essential and doesn't have to be cruel. Testing for everyday products is cruel. Karyssa made the distinctions clearly and supported her opinions with reasoned facts. Failure

can be a moment in time, it doesn't have to be permanent. Karyssa learned and demonstrated this. I use both of her projects in my presentations to all classes.

- Nearly every Grade 4 8 class joined (200 + projects) This created pressure on available typing/online device use. Grades 4 - 6 started in November. Grades 7 & 8 started in January.
- Allowing student use of personal devices became standard in many curriculum areas.
- I started teaching Google Advanced Search in the fall so students could better find reliable information they could read, understand and use → students got info they needed and when they had a use for it -- this greatly reduced the amount of website information I had to provide.
- I demonstrated <u>EasyBib.com</u> for students to more formally record/report their resources.
- Inquiry at the Grade 4 was very difficult. Modelling and conferencing proved to be essential.
- Inquiry questions were developed through discussion/reflection and for some students the teachers 'gave' the question because it was what the student needed at the time.
- Teachers supported students with developing their answers.
- I coached students to refine their presentations (they were focused on the media literacy triangle to specifically state their project's purpose and meaning, to understand who their audience would be and what they may be looking for, and to making their projects have a 'finished' production level.)

Year four, 2013-14 >> Looked a lot like year three

However, there was grumbling ... older students were getting bored/tired of the same old ... please see Years five and six

Year five, 2014-15

We listened to our students and focused on their needs. Student partnerships can't win awards at the Regional Heritage Fair, yet collaborative work is an essential life skill and an Ardagh Bluffs' norms, so ... if kids want to win awards, they do an individual project. If they don't care about awards, they can work in partners. That is what our Grades 7 & 8 students did.

Historically, presentation format was with a 2-fold 3 section presentation boards with some props. Judges didn't seem to understand or reward 'different' presentation formats. Two students, Cassidy and Kennedy presented concerns to Shaughna Crew, Events Coordinator at Simcoe County Museum over the phone.

Results:

- 1. Training of judges now specifically outlines that projects can have different forms (video, iPad use ...) AND that the message/story and thinking and delivery were the essentials.
- 2. Kennedy and Cassidy presented at the Simcoe County Museum with a blog, video, tandem presentation and a presentation board to visually draw in an audience. They didn't win any awards, but the personal satisfaction and esteem from teachers and their audiences were the real awards.
- 3. I encouraged that a new award for best collaborative work be created -- not achieved ... yet.
- 4. Request that video presentations be judged by the same judges for relative grading.
- Some students were coached to redo projects to be visually appealing.
- Some of the above students had others work with them to make this look appealing.
 - * This indicates students should use presentation formats that suit their strengths when given a choice.

Year six, 2015-16

All Grades 4 - 7 students taking part ...

- Grade 8 students have the option to take part in Heritage Fair, Science Fair or Genius Hour which is a self-determined learning project. One week in and teachers realized some projects didn't lend to deeper prolonged learning, e.g., <u>How to bake cupcakes</u> was a two hour start-to-finish project.
- * Five years ago, student choice and wide open options wouldn't have happened. Further, the evolution in teaching and student learning meant teachers were able to work with the student to repurpose the misguided projects. This eliminated loss of time, lack of engagement and unnecessary failure.

In our two Grade 8 classes, many of the curriculum subjects now include aspects of inquiry based learning. Essential topics and skills are presented by the teachers.

Mr. Weller says, "The days of rote memorization are gone. The engaging, inquiry based learning system teaches students to value their investigative thought, teaches them skills that they can use in any field, and increases their knowledge."

- For example, Dance ... investigate two diverse dance types of your choice, determine key components of the dances (students did not have to perform) AND mash the two styles to create and demonstrate the new dance (students could record or perform live.) Cultural sensitivity was an essential lesson/requirement.
- Inquiry Buddies with Grade 7 & 8 classes and most of our Kindergarten and Grade one classes began this fall. By 'teaching' the younger students, the older students are reinforcing the cycle of inquiry for themselves and are building better questioning for all students. The older students have to be empathetic and patient. At times it's challenging and at times it's rewarding. The discussions back in the classroom reveal the older students want to be caring and helpful and they ask for guidance and suggestions from their peers and teachers. The younger students are happy to be learning about what they want to know and they like that it happens 'now.' We teachers say we're giving our students the opportunity to be valuable and lovable to others and themselves.

Essential learnings and advice:

- Give teachers choice to join inquiry and collaboration; initial comfort level is important. Over time, the benefits will encourage more teachers to risk and collaborate. "There are no curriculum police," stated Simcoe County DSB Superintendent Anita Simpson, Spring 2015; this is permission to abandon the idea of ever covering every single curriculum expectation experience shows teachers will have their students take part in these inquiry and collaborative practices -- enhanced learning becomes obvious.
- Promote assessment of learning/report card evaluations in many subjects to create teacher buy-in.
- Start, find a colleague to work with and just start. (* If I hadn't found Mr. Weller, I would have started with my group of students.)
- Backwards plan your teacher collaboration and student project benchmark/completion dates.
- Talk frequently with colleague(s) and students. First time attempt will have successes and failures. You will learn from it. Guaranteed.
- Give students choice in topic and presentation format to best engage students.
- Teacher must know/understand the purpose of the student work.
- Students must know the success criteria.
- Conference frequently to listen, to see evidence, and provide assessment for learning.
- Scaffold for your students differentiation at its best.
- Listen to students and model how to reflect on their work, thinking and next steps so they can move to assessment as learning/metacognition.

To conclude, just start ...

References:

Justin Weller, Grade 8 teacher @ Ardagh Bluffs Public School, collaborations, discussions and interviews - various dates from November 2010 through December 2015.

Mason, Karyssa, Matt, Cassidy, Kennedy, former students @ Ardagh Bluffs Public School, collaborations, discussions and interviews - various dates from January 2011 through April 2015.

Jackie Kavanagh, SCDSB Superintendent, former Principal Ardagh Bluffs Public School, discussions and interviews January 2011 through October 2014.

Koechlin, Carol, and Sandi Zwaan. *Q Tasks: How to Empower Students to Ask Questions and Care about Answers*. Markham, ON: Pembroke, 2006. Print.

Wallace, Virginia, and Whitney Norwood. Husid. *Collaborating for Inquiry-based Learning: School Librarians and Teachers Partner for Student Achievement*. Santa Barbara, CA: Libraries Unlimited, 2011. Print.

Heritage Fair supports:

Link to Ontario Heritage Fair site Links to Greg Harris' websites

<u>Heritage Fair - Good teaching/learning</u> < Essential clips that testify <u>Student Research Info</u> < Teaching guide for modelling with students & teachers <u>Student Heritage Fair website</u> < Topic specific websites for students

Biography:



Greg Harris started teaching as a child by helping others when told to by various teachers. His father, Joe Harris was a principal in Hamilton, Ontario and said, "Do whatever you want, but don't be a teacher." Greg doesn't always listen to authority figures.

After brief careers in accounting, self-reflection, marketing analysis, quality engineering and training, teaching became the career called home. A teacher librarian since 2002, Greg attempts to download responsibilities to

students and teachers as much as possible. He says, "It's not laziness, rather it's to empower others." "Why?" and making mistakes are two of the easiest things to say and do. Why not embrace?