

Applying the CoI Framework to a K-12 Context



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Overview

1. Theoretical framework
2. Study context
3. Methodology
4. Findings
5. Recommendations
6. References



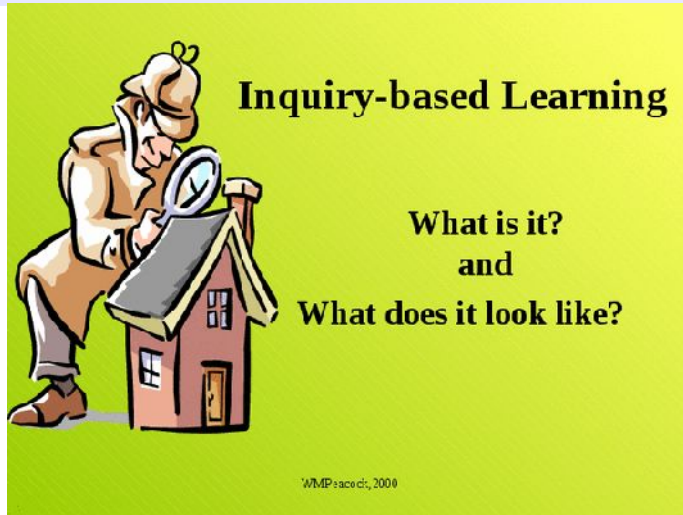
Slides available at:

<http://tinyurl.com/coiwebinarnov2014>

1. Theoretical Framework

Inquiry-based learning

Buzzword, jargon, or potentially a valid approach to learning - your thoughts?



[Parents, educators rally against Alberta's 'new math'](#)

Inquiry

- Is problem or **question driven**
- Typically has a **small-group** feature
- Includes **critical discourse**
- Is frequently **multi-disciplinary**
- Incorporates **research methods** such as information gathering and synthesis of ideas

[University of Calgary](https://www.ucalgary.ca/)



Inquiry

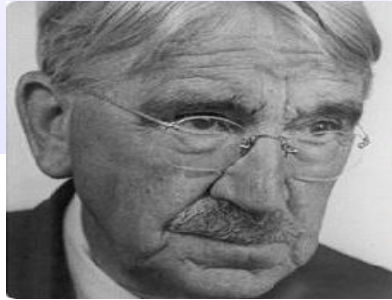
- Knowledge rests not on facts or isolated skills but on principles of inquiry.
- In this view, learning a discipline implies coming to understand not only its substantive structure (i.e., facts, concepts, theories), but also its syntax—that is, the questions that guide inquiry, the tools that allow inferences and interconnections, and the actions and principles (rules) that validate knowledge.
(Joseph Schwab, 1962)



Inquiry

- . . . inquiry as a technology that creates knowledge

[John Dewey, 1938](#)



"Education, therefore, is a process of living and not a preparation for future living."

John Dewey

Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources

[Januszewski & Molenda, 2008](#)



Community

- ... community means meaningful association, association based on **common interest** and endeavor. The essence of community is **communication**

John Dewey, 1916



If we teach today's students as we taught yesterday's, we rob them of tomorrow.
- John Dewey

Community of Inquiry

The importance of a community of inquiry is that, while the objective of critical reflection is **intellectual** autonomy, in reality, critical reflection is “thoroughly **social** and communal”.

[Matthew Lipman](#), 1991

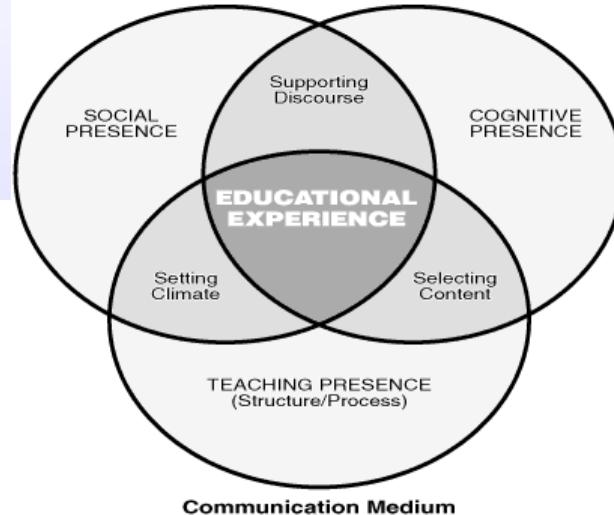


Community of Inquiry Framework

Social Presence

The ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop inter-personal relationships by way of projecting their individual personalities.

Community of Inquiry



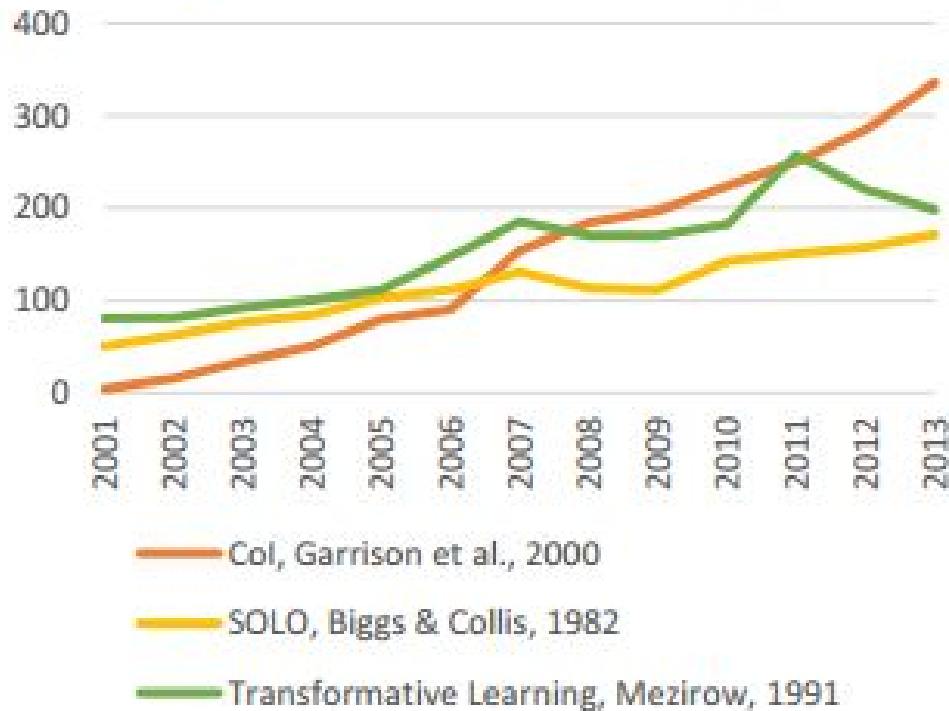
Cognitive Presence

The extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry.

Teaching Presence

The **design, facilitation and direction** of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes. ([Randy Garrison, Terry Anderson & Walter Archer, 2000](#))

Col, SOLO & Transformative Comparative Chart Google Scholar Citations by Year



[Befus, 2014](#)

Practical Inquiry Model – Phases

Sphere	Description	Category/Phase	Indicators
Inquiry Process (Cognitive Presence)	The extent to which learners are able to construct and confirm meaning through sustained reflection, discourse, and application within a critical community of inquiry.	1. Triggering Event	<ul style="list-style-type: none"> Inciting curiosity and defining key questions and/or issues for investigation
		2. Exploration	<ul style="list-style-type: none"> Exchanging and exploring perspectives and information resources with other learners
		3. Integration	<ul style="list-style-type: none"> Connecting ideas through reflection
		4. Resolution/ Application	<ul style="list-style-type: none"> Applying new ideas and/or defending solutions

2. Study Context

The slide features a light blue gradient header at the top. Below it, the text '2. Study Context' is centered in a bold, dark blue font. The background of the slide is white, with several thick, light gray wavy lines that sweep across the bottom right corner, creating a sense of movement and depth.

Educational Technology Course

- Educational technology course in a pre-service teacher education program
- Focus usually on the development of information and communication technology skills (i.e., social networking and multimedia applications) rather than on problem solving and critical thinking processes (Dede, 2007)
- Purpose of this research study was to investigate if and how an inquiry-based approach to digital technology integration could be utilized in a pre-service teacher education program



Course Assignment

- An inquiry-based learning project based on an issue or topic related to the integration of digital technologies in elementary education
- Practical inquiry (PI) model used as the guiding framework



3. Methodology

The slide features a light blue gradient header at the top. Below it, the title '3. Methodology' is centered in a bold, dark blue font. The background of the slide is white, with several light gray, wavy, brushstroke-like lines that sweep across the bottom right corner.

Methodology

Action research approach (Stringer, 2007)

Data collection & analysis (Undergraduate Student Research Assistant)

Blog Postings (Triggering Event, Exploration, Integration, Resolution/Application)

- Winter 2013 – 65 students
- Winter 2014 – 67 students

End of semester online survey

- Winter 2013 - 47 (out of 65 – 72%)
- Winter 2014 – 52 (out of 67 – 78%)

Post-semester focus group

- Winter 2013 – 12 students
- Winter 2014 – 8 students



Guiding Questions

1. How do you define inquiry-based learning?
2. What are the opportunities and advantages of using an inquiry-based approach to learn how to integrate digital technologies into your future teaching practice?
3. Conversely, what are the challenges and disadvantages of such an approach?
4. What recommendations, strategies, and ideas would you like to share for incorporating this approach to learning into your future teaching practice?



4. Process

The slide features a light blue gradient header at the top. Below it, the text '4. Process' is centered in a bold, dark blue font. The bottom half of the slide is white, with several thick, light gray wavy lines that sweep across the bottom right corner, creating a sense of motion or flow.

Triggering Event

Techne

- Ancient Greek word for art, skill or cunning of hand

Technology

- Ancient Greek word for the making, modification, usage, and knowledge of tools, machines, techniques, crafts, systems, and methods of organization, in order to solve a problem, improve a pre-existing solution to a problem or achieve a goal



Triggering Event

Selection of a question, problem or dilemma related to the integration of digital technologies in elementary education, in order to stimulate the inquiry process.

For example, what impact does digital technologies have on children's writing skills?

What kind of strategies and digital technology applications do you use to help students develop their questions for inquiry?



Parental Engagement & Relationships

- Parental partnerships
- Learning extends beyond the walls of the school
- Parent handouts



Galileo Educational Network



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What Is Inquiry?

[Read Article in Spanish](#)

Inquiry is a dynamic process of being open to wonder and puzzlement and coming to know and understand the world. As such, it is a stance that pervades all aspects of life and is essential to the way in which knowledge is created. Inquiry is based on the belief that understanding is constructed in the process of people working and conversing together as they pose and solve the problems, make discoveries and rigorously testing the discoveries that arise in the course of shared activity.

Misconception Alert

"Inquiry is not a "method" of doing science, history, or any other subject, in which the obligatory first stage in a fixed, linear sequence is that of students each formulating questions to investigate. Rather, it is an approach to the chosen themes and topics in which the posing of real questions is positively encouraged, whenever they occur and by whoever they are asked. Equally important as the hallmark of an inquiry approach is that all tentative answers are taken seriously and are investigated as rigorously as the circumstances permit."⁽¹⁾

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[Illustrative Examples of Inquiry](#)

Here at the Calgary Science School we build our understanding of inquiry-based learning around the Inquiry Rubric developed in conjunction with the Galileo Educational Network.

An Inquiry into the Northern Gateway Pipeline

-by [Greg Neill](#), Grade 7 Math/Science Teacher

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POPULAR POSTS



[Inquiry in Math](#)

As a school that tries to develop rich, inquiry-based learning

experiences, one of the questions that often emerges is how we handle inquiry...

[Action Research: The Model Method in Solving Word Problems](#)

-by Kevin Sonico "Show

CBE Field Trip: Follow Up

Karen @kepegler
KEPegler@cbe.ab.ca



Erin @luckybydesign
elquinn@cbe.ab.ca



Concept Mapping

Research any topic with an interactive concept map, that you can customize and share

CONCEPTS

- aftermath: An aftermath is a main shock but its magnitude, (noun)
- area: Earthquakes can be felt over large areas although they usually last less than one minute. (noun)
- basin

customary system

Play Video

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Earthquake - Wikipedia, the free encyclopedia

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aftermath

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Collaborate. Decide.

Invite friends to your maps and work together in real-time.

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Ideas

Discussions

Sharing Photos

Colorful Collaboration with lino.

lino is a free sticky & canvas service that requires nothing but a Web browser.

Initial Blog Posting (Google Blogger)

Monday, January 13, 2014

Another question, another day...

Technology "sigh" this is one subject I have been avoiding since I began my "teacher journey."

I believe that technology surrounds us more than ever before (pointing out the obvious). It has permeated almost all aspects of my life, so I am going to ignorantly assume it has in others as well. Although I consider myself somewhat "tech savvy" I find I am having a difficult time keeping up. It seems to me that tomorrow always brings something "new and better."

In the classroom, I have had limited exposure to the technologies that are present. Yes, I know what a computer, iPad, and SMART board are. I even have some basic working knowledge of each. However, I do not really know the role they play in the classroom; especially a K-6 one. This is where I get a bit "stand-offish" about good old technology. If technology's practical use does not become apparent to me right away, I have a hard time not dismissing it as a "passing trend." I have identified that this is not necessarily a healthy concept to have if I want to become an effective and fantastic teacher. Instead of avoiding technology, I feel I need to start embracing what it brings to the table; both positive AND negative. I also know that it is now or never for me to get onboard the technological train, or else I am (and will be) left behind.



Blog Archive

- ▼ 2014 (7)
 - ▶ April (2)
 - ▶ March (4)
 - ▼ January (1)
 - Another question, another day...

About Me

Mr. P

[View my complete profile.](#)

Exploration

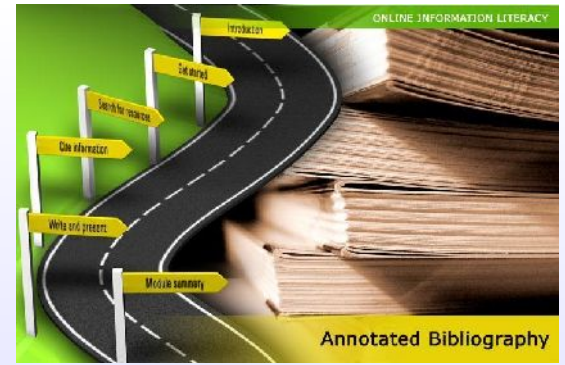
- What kind of strategies and digital technology applications do you use to help students exchange and explore perspectives and information resources with other learners?



Exploration

Annotated Bibliography

- Build on the shoulders of giants :)
- Create an annotated bibliography (with a *minimum of five unique sources*) with the assistance of your peers, MRU Librarians, and the course instructor about your inquiry.
- Post a first draft of your annotated bibliography in Google Docs



Librarians



LibGuides

Research assistance, subject guides, and useful resources compiled by your friendly librarians.

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Calgary, AB T3E 6K6
403.440.6022

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Automated Bibliographies

The screenshot displays the Bibme website interface. At the top, the logo 'bibme' is accompanied by the tagline 'leave the formatting to us'. Navigation links include 'BIBLIOGRAPHY MAKER', 'MY BIBLIOGRAPHIES', 'CITATION GUIDE', and 'TITLE PAGE GENERATOR'. A 'LOGIN REGISTER' button is in the top right. A banner for 'Get Your Updated Credit Score 814 Straight From The Source' is visible, with a 'CONTINUE' button and 'TransUnion' logo. Below the banner, a row of colored tabs allows selection of source types: Book, Magazine, Newspaper, Website, Journal, Film, and Other. The 'Magazine' tab is currently selected. The search area features 'Auto-fill mode' and 'Manual entry mode' options, a search input field with the placeholder 'Find a book by title, author, or ISBN...', and a 'Find Book' button. A 'Powered by WorldCat' logo is also present. To the right, a panel shows the current session: 'UNTITLED: 10/01/14, 12:58PM' and 'Select Format: MLA | APA | Chicago | Turabian'. Below this, a message states: 'Any citations you add to your bibliography will appear here! If you need, you can edit or delete any of your citations.' At the bottom left, a 'Welcome to Bibme' section describes the service as a fully automatic, free bibliography maker. To its right is an illustration of books, a pencil, and an apple. The bottom of the page features three numbered steps: 1. Search for anything (Search for a book, article, website, or film, or enter the information yourself.); 2. Add it easily (Add it to your bibliography and continue citing to build your works cited list.); 3. Download bibliography (Download your bibliography in either the MLA, APA, Chicago or Turabian formats. It's that easy!). On the bottom right, an orange box contains the text: 'THOUSANDS OF TEENS IN FOSTER CARE WOULD LOVE TO PUT UP WITH YOU'.

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INSTALLED



EasyBib Add-On for Google Docs interface showing search results for 'social bookmarking'. The results list several articles with 'Select' buttons.

- Applying social bookmarking data to evaluate journal usage - Stefania Haustein, Tobias Bebenalt - Journal of Informetrics - 2/2009
- Bookmarking - Amy ... - Critical Nurse Specialist - 2/2009
- How to ... use Social bookmarking - Gillian Jowcroft, Victoria Gardner - Editors' Bulletin - 12/2008
- Social bookmarking in the enterprise - David Millen, Jonathan Falisberg, Bernard Gen - Bulletin - 12/2005
- Social bookmarking - D. ... - I.T. Journal - 12/2005
- All Social Semantic bookmarking zur nützlichen Intelligenz With Social Semantic Bookmarking

EasyBib Add-On for Google Docs video player showing the EasyBib logo and the text 'Imagine easy for Google Docs™'. The video player includes a play button, progress bar (0:00 / 0:30), and a YouTube logo.

Google Docs interface showing a document with text. The text includes 'The Use of Subject He...', 'Web 2.0, the use o...', 'Internet, has blown up in...', 'Facebook and Twitter let...', 'videos, to music, to >', 'delicious and Libra...', 'implementing user-gene...', 'with one item (a link, mu...', 'other users to search by...', 'all users. There has bee...', 'user-generated tags in li...', 'In regard to academic li...', 'public library branches c...', 'be approached with caut...', 'Regardless of the t...

This is my project

"I will put your iPad instructions up on the SMART board: The Impact of iPads and SMART boards in the Classroom Environment"

Technology in the classroom is becoming as commonplace as the ruler or pencil. Laptops, interactive whiteboards, and the Apple iPad are just some of the new digital technologies that have become part of the classroom repertoire. The impact and relevance of digital technologies is large, and presents new learning opportunities and learning challenges for both the educator and the student.

Are these technologies as helpful as their non-technological counterparts? Furthermore, is the effectiveness of these tools limited by the educator's comprehension of the technologies? Using classroom observations, student and educator interviews, and academic literature, this project will discuss the effectiveness of both technologies in the classroom, and will address the opportunities and limitations of iPads and SMART boards in an educational environment.

Riley, P. (2013). Teaching, Learning, and Living with iPads. *Music Educators Journal*, 100(1), 81-86. <http://dx.doi.org/10.1177/0027432113489152>

Provides reflections of pre-service music teachers on the benefits of using iPads for teaching music. The articles suggests multiple applications, strategies, and the positive impact of iPads in the music classroom. It recommends numerous downloadable applications that can be utilized, and suggests possible funding schemes for schools to purchase iPads.

Mechling, L. C., Gast, D. L., & Krupa, K. (2007). Impact of SMART Board Technology: An Investigation of Sight Word Reading and Observational Learning. *Journal Of Autism & Developmental Disorders*, 37(10), 1869-1882. <http://dx.doi.org/10.1007/s10803-007-0361-9>

January 27, 11:20 AM

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January 27, 11:20 AM

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January 26, 6:07 PM

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January 24, 10:25 PM

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January 24, 12:11 PM

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January 21, 11:03 AM

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January 23, 1:27 PM

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January 21, 4:04 PM

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January 20, 12:48 PM

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January 19, 1:25 PM

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January 17, 3:01 PM

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January 13, 12:29 PM

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Exploration

Research Proposal & Ethics Tutorial

- Post a first draft of your proposal in Google Docs
- Complete the [TCPS Ethic Online Tutorial](#)



Exploration

Professional Learning Networks (PLN)

- Inspired Learning

The screenshot shows the homepage of the Inspired Learning website. At the top, there is a navigation bar with links for Main, NEW MEMBERS, My Page, Forum, Groups, Member Content, Links, Photos, and Videos. Below the navigation bar, there is a green banner with the text "Welcome to Inspired Learning! Here's how you can do right now..." and three icons: "Customize Your Page", "Add Content", and "Add Apps".

The main content area is divided into several sections:

- 2014 New Year Challenge:** A section titled "Are You Ready for Your 2014 New Year's Challenge?" with a sub-header "2014 New Year Challenge". It includes a list of "Our 2014 Goals Include:"
 1. Ongoing drive for new members. Expanded user population that includes all Alberta educators involved in implementation of Inspiring Education. We need your help. Please invite any Alberta K-12 educator you know to join us in this community. Here's the sign-up and there will be multiple opportunities to learn and grow around the inspired learning theme.
 2. Deeper interactions between members as well as evidence of our created strategies. We have brought to you some of the best educational resources we created - to the front of our site and some that right here in Alberta (John Hill, Kristi Turcotte, Erin Summ). You can find out more about the coaches here. We wait no posting time so they write.
 3. Creation and sharing of new inspired learning aligned resources and innovative practice. We will be sharing the best content out there to help you in reflecting and improving.
- NEW TO THE COMMUNITY:** A section titled "Join the Inspiring Network" with a sub-header "Join the Inspiring Network". It includes a "JOIN PURPOSE" section and a "LOOK HERE" section.
- VIDEO TOUR OF SITE:** A section titled "VIDEO TOUR OF SITE (Click here to enlarge)".

On the right side of the page, there is a sidebar with a user profile for "Newman Vaughan" and a "Featured Resource" section.

Professional Learning Networks (PLN)

Alberta Connected Educators

Sign-up form

The screenshot shows the homepage of the Alberta Connected Educators website. At the top, there is a blue header with the site name and navigation links. Below the header is a banner advertisement for Chamberlain's 'AIR POWER LIGHT' garage power station. The main content area features a forum board with several threads. The threads are listed in a table with columns for board name, threads, posts, and last post.

Board	threads	Posts	Last Post
Let's Talk Have a question about the Alberta Educators?	3	3	Why are students so disengaged? By orcinoid Tue 10, 2009 at 10:16am
About This Community Welcome to a friendly, supportive and fun place to talk about the creation of this community.	2	4	Welcome to By Laurita Talley Jan 9, 2009 at 8:20am
Lesson Ideas, Plans and Assistance I have a great lesson or activity and not sure what to do next? Share here and all the community helps you plan.	0	0	No posts have been made on this board.
Videos, Blogs and Articles Share some of the things that have made you stop and think or that you would like to share with others.	2	2	My favourite John Scally Blog Talk By theedpage Dec 20, 2008 at 2:00pm
Professional Development / Conferences Aware of some PD opportunities taking place? Do you have ideas for potential PD opportunities? Share here.	4	5	Outdoor Ed Symposium Day By theedpage Jan 9, 2009 at 1:00pm
Links Share links to resources, assessments and anything else you think may be useful to others.	2	2	Alberta Connected Educators By theedpage 7 hours ago

Survey Questions

The purpose of this survey is to collect anonymous data for a research project. The focus is on the effectiveness of iPads and SMART Boards in the elementary classroom based on the educator's understanding of both technologies.

* Required

You are a *

- Student
- Teacher
- Parent
- Other

Age *

- 0-17
- 18-25
- 26-35
- 36+

Where do you currently reside? *

- Alberta
- Saskatchewan
- Other:

Does your classroom(s) have a SMART Board?

- Yes
- No
- No, but we have access to one in our school

Does your classroom have access to iPads?

- Yes
- No
- Our school has an iPad cart
- No, but we are allowed to bring one from home if we own one

Do you have an iPad at home?

- Yes
- No

How familiar are you with SMART boards and iPads?

- I do not know how to use one/both
- I have a basic understanding of one/both
- I am somewhat proficient with one/both
- I have a strong understanding of one/both

Please describe how the SMART Board is used in your classroom

Please describe how iPads are used in your classroom

Do you feel that iPads enhance learning? Why or why not?

Do you feel that SMART boards enhance learning? Why or why not?

Never submit passwords through Google Forms.

Skype Interviews

**DID INTERVIEW OVER
SKYPE**



**DIDN'T NEED TO PUT ON
PANTS**

Google Connected Classroom



On 

CONNECTED
CLASSROOMS

Bring the world into your classroom through Google+



Learn more

The banner features a dark background with a faint grid pattern. On the left, there is a faint icon of a laptop with a person's head inside. On the right, there is a faint icon of a globe with a person's head inside. The text 'CONNECTED CLASSROOMS' is centered, with 'CLASSROOMS' in a larger, multi-colored font. Below it, the tagline 'Bring the world into your classroom through Google+' is written in a smaller font. At the bottom center, there is a red YouTube play button icon with the text 'Learn more' underneath it. In the top right corner, there is a small 'On' label followed by the Google logo.

EXPLORE UPCOMING FIELD TRIPS



<    >

OCT. 14, 1:00 PM EST OCT. 20, 12:00 PM EST PAST: SEPT. 18, 9:30 ...

The carousel consists of three circular images. The first image shows a person standing in front of a stone wall. The second image shows a woman with short grey hair, wearing a blue turtleneck, sitting at a desk in a library. The third image shows a group of children in blue uniforms cheering. Navigation arrows are on either side of the carousel. Below each image is a date and time. The first is 'OCT. 14, 1:00 PM EST', the second is 'OCT. 20, 12:00 PM EST', and the third is 'PAST: SEPT. 18, 9:30 ...'. There are also decorative grey shapes at the bottom of the carousel.

Virtual Researcher on Call



Virtual Researcher On Call (VROC) is a set of educational programs that connect knowledge partners - college and university professors and professionals in the fields of Science, Technology, Engineering and Math (STEM) - with Canadian students in elementary and secondary schools for real-time, interactive learning opportunities.

New this Fall: **PIR Live Event!** PIR Live Events take expert-to-classroom connections and make them available to classrooms across Canada with a live stream online!

EXPERTS ON DEMAND

In this VROC program, knowledge partners (Experts) and students interact in real time via videoconference. Teachers find the appropriate Expert to contact using [ExpertBook](#), VROC's searchable online database. [More...](#)

[Sign up](#)

[Request a Mentorship](#)

VROC VIDEO



VROC provides a series of fast-paced, fun and educational videos with the goal of inspiring students to become the next generation of champions in Science, Technology, Engineering and Math (STEM). [More...](#)

Integration

- What kind of strategies and digital technology applications do you use to help students connect ideas through reflection?

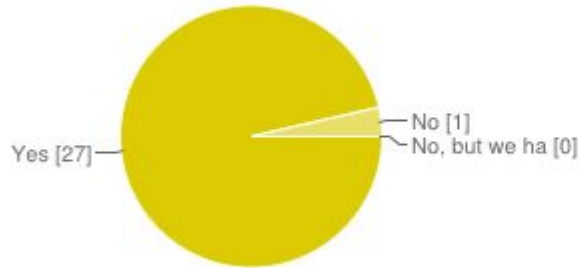
Integration



Quantitative Data Analysis

- using Google Spreadsheets for quantitative analysis

Does your classroom(s) have a SMART Board?



Yes	27	96%
No	1	4%
No, but we have access to one in our school	0	0%

Integration

Digital Storytelling

- Use the initial findings from your study and your annotated bibliography to create a digital story in PowerPoint or iMovie to be posted in YouTube.
- The final draft of your digital story should be posted by **April 2 at midnight**



Resolution/Application

- What kind of strategies and digital technology applications do you use to help students resolve problems, apply new ideas, communicate, share, and celebrate their inquiry project?



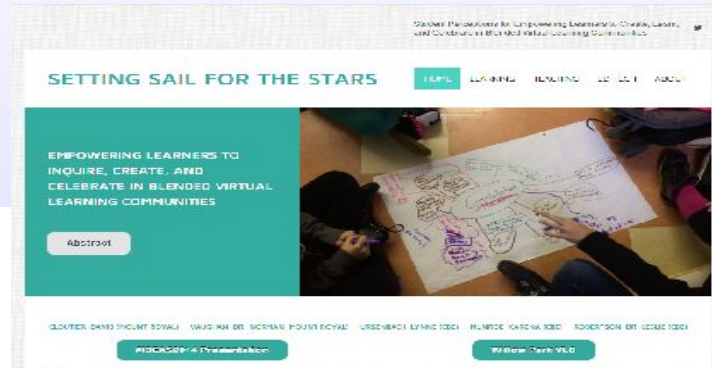
Resolution/Application

MRU Student Research Day – April 2nd



Documentation, Communication and Celebration

- Learning artifacts and reflections



- Sharing a foundation and legacy



Documentation, Communication and Celebration

- School and district PD workshops



Documentation, Communication and Celebration

- School and district newsletters and publications



64 Days of Learning

Follow us on:  

THE STORIES ABOUT CBE 182 WRITE FOR CBE 182 CALENDAR OF WRITERS



Day 25: David & Lyne, Student Teacher & Partner Teacher, Willow Park School
05/02/2014 [Comment](#)



A Universe of Possibilities! Students as Explorers, Researchers and Teachers

We can all be explorers, from our classrooms or from anywhere: meaningful learning happens when teachers and students alike take risks in learning, and have a willingness to try new things, reflect, and repeat.

No matter where you are as a learner, research is always more than collecting facts. In our Grade 6 class, we used tools like Instagram to engage learners so they could focus on process - synthesizing and connecting ideas, rather than taking notes or worrying about proper citations.

And learning is more than just knowing what to do - what's important is knowing how to learn! In this student-directed inquiry work, students considered and mapped the possibilities that could emerge from "juicy questions", and only then, when every student had found a research connection they could deeply connect with, did we collaboratively map it back to outcomes in the curriculum.

The powerful essence of this work was that students recognized that they were teachers, too. The true meaning of teaching and learning came out through listening and understanding. Some of the ways we've done this work:

- A student led research symposium. Students were tasked with creating engaging research sessions around their learning. Other classes were invited to pick sessions that interested them.
- An "Emerging Learners" Wiki: Students became the Grade 6 experts on Sky Seneca, and built a knowledge base together using GAFE. Other classes can now learn from what they've built, and build off of their ideas.

See more of our work, discuss, comment, revise and share through our resource in [CORE](#).

David Cloutier (@DavidCloutier) is a student teacher from @SoundByGLESU (and a part of the @CBE182 team) team learning with Lyne Eisenhart (@LyneEisenhart), a Learning Leader, at Willow Park School. Both are passionate about empowering students to explore and to create together, build off the work of others, and consider the impact they can have along their learning journeys.

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What Learning Looks Like in RVS

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This animated film highlights inquiry and project based learning in which Rocky View Students have engaged from K through 12. Narrated by Olivia K. and illustrated by Springbank Media Arts students Michael G., Eddie J. and Derrilyn C.

What does learning look like in Rocky view Schools?

RVS Learning

Examples of teaching and learning in Rocky View Schools:

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Documentation, Communication and Celebration

- Local conference presentations



The banner for the IDEAS Conference 2015 features the University of Calgary logo on the left. The central graphic shows the word "IDEAS" in large, bold, black letters, with a colorful, abstract illustration of people holding hands in a circle below it. To the right, the text reads "DESIGNING RESPONSIVE PEDAGOGY" in a mix of red and black, followed by "APRIL 30 & MAY 1, 2015" and "MacEwan Conference & Event Centre University of Calgary". A vertical red bar on the right side of the banner contains the text "IDEAS CONFERENCE 2015". Below this, a red and black box states "Presented by WERKLUND SCHOOL OF EDUCATION & THE GALILEO EDUCATIONAL NETWORK".



The screenshot shows the website for the InnovateWest Annual Conference 2014. The top navigation bar includes links for Home, Conferences, Networking Days, Register, About, and Cart. The main content area features the text "INNOVATE WEST ANNUAL CONFERENCE OCTOBER 24-25, 2014" and "An annual gathering of a forward-thinking group of educators from Western Canada". Below this, a paragraph describes the conference as an annual gathering where discussion between educators is the priority, facilitated around a topic, issue or area with guiding questions or actions for participants. The conference begins on October 24 during an operational school day at Connect Charter School, where delegates visit classrooms, talk with teachers and, best of all, students.



Documentation, Communication and Celebration

- External conference presentations



The image shows a screenshot of the website for the International Dabrowski Congress 2014. The main header reads "DABROWSKI CONGRESS" with "international" in smaller blue text above "CONGRESS". A navigation menu includes "Home", "Canmore / Register", "Presenters", "Benefits", "Submissions", "Testimonials", "Links", and "Contact". The central image features a baby pointing at a whiteboard with chemical structures, including H_2O and OH^- . Below the image, the text reads "Creativity" and "Transforming Perceptions of Reality". At the bottom, the event details are listed: "INTERNATIONAL DABROWSKI CONGRESS 2014", "CANMORE, ALBERTA", and "JULY 24 - JULY 26, 2014".

international
DABROWSKI CONGRESS

Home | Canmore / Register | Presenters | Benefits | Submissions | Testimonials | Links | Contact

Chemical structures on whiteboard: H_2O , OH^- , \rightleftharpoons

Creativity
Transforming Perceptions of Reality

INTERNATIONAL DABROWSKI CONGRESS 2014
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Documentation, Communication and Celebration

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4. Findings

The slide features a light blue gradient header at the top. The main content area is white. In the bottom right corner, there are several overlapping, wavy, light gray lines that create a sense of movement or depth.

Student definitions: Inquiry based learning

1. Asking and solving your own questions
2. Self-directed learning and knowledge construction
3. Discovery and exploration learning



Opportunities: Inquiry based learning

1. Internal motivation
2. Self-directed learning
3. Deeper understanding of subject matter
4. Peer and collaborative learning



Challenges: Inquiry based learning

1. Time-consuming and hard work
2. Not enough structure (need for some liberating constraints)
3. Technology frustrations



5. Recommendations

The slide features a light blue gradient header at the top. Below it, the title '5. Recommendations' is centered in a bold, dark blue font. The background of the slide is white, with several light gray, wavy, brush-stroke-like lines that sweep across the bottom right quadrant.

Big picture orientation

- *“Important to provide students with the big picture idea so they know where they're going, but still incorporate small steps so they don't get overwhelmed” (Student 16).*



Clear guidelines and scaffold the process

- *“Start with small projects and slowly build (scaffolding) the independent learning skills needed to take on larger projects” (Student 3).*



Careful and informed topic and question selection

- *“Every student should be working on a topic and question that is of interest to them and they genuinely care about the project or they won't do it” (Student 13).*



Embedded technology instruction related to the project

- *“Each week the teacher should demonstrate the use of a different technology that could be used to help students complete their inquiry-based learning projects” (Student 8).*



Digital storytelling to convey the project results

- *“I really liked how everyone needed to create a digital story to convey the results of their project, but everyone was able to select and investigate a question that really meant something to them. I feel this is when you really learn and I will make sure to incorporate this process into my future teaching practice” (Student 27).*



The screenshot shows the SSHRC website with the following elements:

- Header:** Social Sciences and Humanities Research Council, Canada logo, and a search bar.
- Navigation:** About SSHRC, Funding, Competition Results, Connecting with Society, News Room.
- Breadcrumbs:** Home > Connecting with Society > Research for a Better Life: The Storytellers
- Left Sidebar (Connecting with Society):**
 - Outcomes and Impacts
 - Research Stories
 - Community Engagement
 - Imagining Canada's Future
 - SSHRC Leaders
 - Research for a Better Life: The Storytellers (highlighted)
 - SSHRC Connects
- Main Content Area:**
 - THE STORYTELLERS:** A large orange circular graphic.
 - Meet the Top 25:** A text box announcing the results of the Top 25 Storytellers competition, mentioning the impact of SSHRC-funded research and the start of Storyteller Tuesday on April 8, 2014.

Questions?



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