

**Ottawa Region- Managing Information for Student Achievement
(MISA)
Collaborative Inquiry
2016-17 FINAL RESULTS**

**HOW DO WE KNOW WE ARE CLOSING THE GAP?
PUTTING THE EVIDENCE INTO ACTION**

Board Contact /Project Liaison Name and Email address:

Stephen Blok – bloks@rcdsb.on.ca

Jude Kelley – kellej@rcdsb.on.ca, Steve Griffiths – griffithss@rcdsb.on.ca,

Debra Metzger – metzgerd@rcdsb.on.ca and Jessica Poff – poffj@rcdsb.on.ca

A. INQUIRY FOCUS

The Madawaska Family of Schools is going to engage in a Junior Math PLC where teachers are focusing on moving Level 2 Marker students in Mathematics. Their inquiry has to do with supporting students in developing strategies that will aid them in unpacking the question and essentially give them an entry point to problem solving. As a group of Administrators we are interested in leveraging our own leadership strengths in leading the learning that is happening together with our teacher teams.

B. INQUIRY ALIGNMENT

Which Ministry area from Achieving Excellence does your inquiry address?

By working in a collaborative environment, we are able to better provide our learners the tools they need to reach their full potential.

Collaboration results in raising the bar for our teaching force, support staff and education leaders. By working together we will develop more authentic tasks, develop more teaching strategies and uncover great pedagogical practices, that will increase student engagement and achievement.

A portion of our time is going to be spent on leveraging technology in the classroom. We will be critically looking at how to use technology to access math learning and not simply as an add on.

Utilizing the SILC model we have developed a Collaborative Inquiry question and implemented a 6 week cycle. This cycle will allow for intervention in a timely and effective way to help children and students who are struggling.

The renewed math focus has also allowed us to create a Math Lead in our schools. This lead position will be empowered to support the learning of their fellow staff.

What aspect(s) of your School Improvement Plan and/or Local MISA Capacity Building Priority does your inquiry address?

SEF Indicators 2.1 - Collaborative instruction leadership builds capacity to strengthen and enhance teaching and learning.

SEF indicator 4.1 (Culture of High Expectations)

RCDSB Strategy 3 - To improve instructional leadership capacity through collaborative inquiry in order to strengthen and enhance learning.

C. INQUIRY QUESTIONS

What problem of practice or student learning need is the basis for your inquiry? What questions are guiding your inquiry?

If we use student engagement strategies to facilitate student unpacking of the question in order to provide an entry point for everyone, student engagement and achievement will increase.

How can we foster a deeper understanding of the math questions, in order to allow students to demonstrate their thinking?

How can we make student thinking visible so we can understand their misconceptions and provide interventions more quickly?

How can we help students unpack/deconstruct/ pull apart math questions in order to fully understand their task?

What is the next teacher move that is going to elicit deeper thought and further understanding?

How will thinking about our thinking and assessing our efforts attribute to our achievements?

Describe how MISA support might assist you in assessing the impact of your inquiry work.

In the past MISA has offered the support of a researcher and assistance with monitoring the project. Both of these resources could be assessed to

help with our inquiry.

D. INQUIRY DESCRIPTION:

Please describe your inquiry including:

- **the initial data/evidence that supports your inquiry focus**

An analysis of EQAO data, coupled with a collaborative meeting where teachers identified students' greatest area of need provided the information for us to develop our inquiry question. Our inquiry is focused on Marker Students, which are LD or true level 2 achievers.

- **the data/evidence that you intend to collect to gauge the ongoing impact of your work**

We have accessed 2 questions which we will use over the course of our inquiry to gauge our success in moving students. One question comes from PRIME and the other comes from LNS – What Works – Research Into Practice – Making Space for Students To Think Mathematically.

- **those who will participate in the work**

Our Collaborative Inquiry will be done within the Madawaska Family of Schools. This will encompass 4 schools, all K to 8. It will be attended by all teaching staff in the Junior divisions, our Student Success Teacher, our Special Education Central Officer our, TELT-C's and all administrators.

- **intended activities, products/deliverables**

Our first meeting will focus on developing a common understanding of what the Math Proficiencies are and how they are intertwined with the Math Processes. We will work on creating the collaborative inquiry question as well as developing a monitoring tool to gauge our success. We will engage in Moderated Marking activities and explore strategies that can be employed to assist students with unpacking questions. We will delve into some of the EQAO questions to develop a common understanding of what Thinking vs. Application vs. Knowledge and Understanding questions look like. We will also engage in lesson studies to share best practices and explore teaching practices at the ground level.

How are you intending to collect evidence of student growth? (e.g., journals, portfolios, observation, interviews, student voice)

Evidence will be gathered in the form of conversations, observations and products. We will leverage technology as a means of creating a digital portfolio that will document not only student work, but also their thinking via the app – “Explain Everything”. We will utilize our Moderated Marking question as baseline data, then again on 2 subsequent questions throughout the year.

E. BUDGET PLAN

The main focus of the budget should be on teacher face-to-face collaboration. Budget items may include teacher release, along with some **non-capital materials** (not hardware) and support in developing resources and the production of a final report to support the collaboration. (Please provide itemized costs for the inquiry---funding will not exceed \$10,000).

Item	Purpose	Cost
Oct Meeting 1	Collaboration	11 @ \$122.00 = \$1342.00
Nov Meeting 2	Collaboration	11 @ \$122.00 = \$1342.00
Jan Meeting 3	Collaboration	11 @ \$122.00 = \$1342.00
Feb Meeting 4	Collaboration	11 @ \$122.00 = \$1342.00
April Meeting 5	Collaboration	11 @ \$122.00 = \$1342.00
May Meeting 6	Collaboration	11 @ \$122.00 = \$1342.00
MISA Meeting Oct 24	Introduction	4 @ \$244.00 = \$976.00
MISA Meeting May 16	Final Presentation	4 @ \$244.00 = \$976.00
	TOTAL	\$10004.00

E (2). ACTUAL BUDGET

Actual Spend		
Item	Purpose	Cost
October 3 rd Meeting One	Identify Greatest Area of Need. Develop Inquiry Question. Select Diagnostc Measurement Tools.	\$1220.00
October 24 th MISA Nepean	Central Kickoff Meeting	\$978.66
November 14 th Meeting Two	Creation of Success Criteria and Moderated Marking of Diagnostc.	\$1268.80
January 18 th Meeting Three	Co-Lesson Study G5/6 and G3/4. Utilize BET lines strategy.	\$1146.80
May 9 th Meeting Four	Co-Teaching G3/4 – Utilize 2 strategies (Musical Math & Highlighter)	\$1052.30
May 16 th MISA Celebration Kingston	Sharing of Inquiry and Celebration Event.	\$2086.43
June 13 th Meeting Five	Moderated Marking of Final. Sustainability Discussion and Next Steps.	\$929.50
June 23 rd Meeting Six	Lego Serious Consolidation of Inquiry	\$1049.20
June 23 rd Meeting Six	Lego Serious Consolidation – Mileage Theresa	\$250.00
	TOTAL	\$9981.69

F. INQUIRY REPORTING

Actual Outcomes and Measures (What changes/achievements resulted from the outputs? What data/evidence supports these results?)

Changes:

Greater focus on Level 2 students.

Creation of a strategy bank that has been used to support students in unpacking mathematical questions.

Entry points being provided for everyone.

Better understanding and execution of teaching practices that support students by staff.

Shared learning across Family of Schools.

Deprivatization of the classroom.

Data/Evidence:

Increased success for our Level 2 students in unpacking mathematical word problems as measured via a 5 point success criteria.

Increased collaboration and teacher efficacy as measured via an exit survey after each PLC.

Increased readiness for ongoing collaboration as identified anecdotally through the exit surveys.

Did your inquiry change from your original plan? If so, how?

No.

Lessons Learned/Promising Practices (What lessons learned/promising practices have emerged and can be shared?)

Increased collaboration.

Willingness to take risks. Safe environment.

Use of technology.

Use of effective unpacking strategies.

Increased professional dialogue.

Transparency increased.

Other Thoughts...

How did your inquiry support math learning, teaching and student achievement?

Our inquiry worked to build the collective capacity of the junior teachers with our family of schools. Our meetings focused on planning a lesson together, teaching and consolidating with the students, and debriefing the lesson/learning as a team. We engaged in action research through the development of a strategy bank that was a collection of pedagogical moves. Teachers chose strategies to try out and reported back to our group.

How did your inquiry support math learning, teaching and student achievement?

Our inquiry worked to build the collective capacity of the junior teachers with our family of schools. Our meetings focused on planning a lesson together, teaching and consolidating with the students, and debriefing the lesson/learning as a team. We engaged in action research through the development of a strategy bank that was a collection of pedagogical moves. Teachers chose strategies to try out and reported back to our group.

How did you build a school approach that supports students with LD profiles?

From inception, our inquiry question specifically focused on Level 2 students, and what their greatest needs to be successful were. At each of our meetings we specifically discussed the learner profiles of our marker students and the teaching strategies that would/could be used to address their unique learning needs. These strategies all fell under the category of “necessary for some, good for all.”

How did you leverage your math dept or other central resources to impact educator and student learning?

As small schools we don’t have math departments per se. We leveraged the collective knowledge of the junior teachers in our family of schools, our math leads and our SST’s, to push the learning of individuals. We were also fortunate to have our Spec Ed resource teacher and TELT-C present at most meetings. They helped to provide us with resources and direction.

How are you strengthening math assessment practices?

We continue to support our teachers in understanding the different assessment practices they can use under the categories of Conversations, Observations, and Products.

Through moderated marking we began to establish a common understanding of what success looks like. The use of technology to document our conversations and observations is something we will continue to focus on. We have identified assessment as an ongoing area of need.

How have you supported the development of your math dept?

Our Principal team has reflected on our role in these professional learning sessions. We have summarized our learning into 4 key areas that you will discover if you unlock our box. We continue to reflect on SILC to determine next steps and manage our pressure and support balance.

Feedback from the field.

What's our story?

3 x Focus as a group on shared need and same strategies across schools/classes/grades

2 x Shared success criteria with students

1 x As a group (FOS), discussed how student unpacking of a question is an area of need in math

Came together through RMS to co-construct a learning goal as educators and co-create success criteria to support student achievement, paying particular attention to our level 2 marker students

Discussed after reviewing student work

diagnostic/baseline data in Fall 2016

Improvement was not across all classrooms/grades (it was inconsistent)

We need more time analysing data to know what our next steps are

What's our greatest success/challenge?

Success:

2 x Collaborate working partnership despite distances/frequency of meeting

Overall growth

Team teaching and observation in classrooms to see strategies in use

Shared folder with different strategies

Success partly due to ability to meet same grade teacher

Challenge:

2 x To develop a success criteria that universally supports our goal AND our kids simultaneously

2 x Matching our plans to our inquiry goal (KPS day) BUT, success in that we recognized our mistake/oversight

1 x Maintaining communication between meeting times, share resources/ideas etc.

Choosing a proper marker student (small sample size, unfamiliarity with students, general truancy, etc.)

Thoughts on sustainability?

3 x Spreading info/ideas to other teachers in our schools and continued meetings

2 x Board wide sharing - Admin who learn about other schools ideas/resources to share with teachers

1 x Keeping a variety of strategies (BET lines, AtTACK the unpack, Musical Math)

Trying new strategies

Update/modify success criteria but continue to use it

Transfer student results to next year teacher (portfolio, data results) so student learning can continue along the trajectory

Ideas that will maintain/enrich engagement and interest with the inquiry focus

SST flexibility/fluidity throughout FOS