

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

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

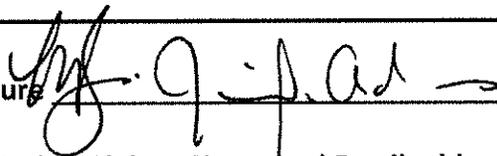
The Ottawa Region MISA Professional Network Centre (PNC) will be supporting inquiries in utilizing evidence-informed decision-making (EIDM). Your inquiry will align with the Ministry 'Achieving Excellence' document, local Capacity Building Priorities and/or Board Improvement and School Improvement plans.

Focusing on building teacher and administrator capacity, the inquiries will provide release time for collaboration to study strategies that bring EIDM to the classroom, change practice and most importantly close the gap in student achievement for those subgroups identified by the Ministry. Up to \$10,000 will be provided for inquiries that engage in activities directed at using evidence-based decision-making to improve student achievement. Funds may be used for release and related meeting costs but not capital expenditures.

Inquiry teams will attend a regional session in October 2016, that will allow teams to outline new tasks, and find others with similar themes, as well as learn more about the collaborative inquiry process, data literacy and using evidence to improve student achievement. These teams will be school based so both teachers and administrators are invited to attend.

Inquiries will be shared regionally with other school boards at a May 15, 16, 2017 Symposium.

Director's Signature



Board Contact /Project Liaison Name and Email address:

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Please e mail this Proposal, with a scanned page of your Director's signature, to David Fox, MISA PNC Coordinator. Funds will be allocated very soon. Further information is found at the end of this Proposal Form.

A. INQUIRY FOCUS : Improvement of curriculum outcomes in math for students with learning disabilities in primary grades. A continuation of the math LD CI based on lessons learned.

B. INQUIRY ALIGNMENT

Which Ministry area from Achieving Excellence does your inquiry address?

- Mathematics with a focus on primary students with a learning disability. Involvement in last year's CI reinforced the importance of early intervention with students with learning disabilities. Thus, the focus in this inquiry will shift to learners in primary grades.

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

- Collaborative inquiry linked to an identified need in the School Learning Plan(SIPSA)
- examination of evidence/data (quantitative/qualitative) as part of REFLECT (i.e. to identify students with learning disabilities as an area of need) and as part of ACT/OBSERVE (i.e. to help monitor impact of strategies used)

C. INQUIRY QUESTIONS

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

- What are the learning strategies that are effective in helping students with a learning disability access the mathematics curriculum and demonstrate improvement in the learning of mathematics.

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

MISA support would assist us in:

- identifying reliable data sources to measure the impact of the learning strategies employed
- Refining our inquiry to be able to measure specific impact
- Providing resources to facilitate collaboration among professionals engaged in the inquiry

D. INQUIRY DESCRIPTION:

Please describe your inquiry including:

- the initial data/evidence that supports your inquiry focus
 - submission of school learning plans identifying the existence of gaps for students with learning disabilities

- the data/evidence that you intend to collect to gauge the ongoing impact of your work
 - student work samples, teacher feedback, quantitative measures (tests, assignments, report card information)

- those who will participate in the work
 - 7 school teams of 2-3 individuals consisting of : classroom teachers, principals, Learning Support Teachers;
 - central staff in Learning Support Services Curriculum Services and Business and Learning Technologies

- intended activities, products/deliverables
 - two centrally co-ordinated sessions – one to help develop or build on common understanding of math curriculum and the needs of the LD learner, the other to understand assist teams in sharing and debriefing hat they learned through the process
 - in-school implementation and monitoring of strategies to support students with learning disabilities to improve their achievement of mathematics curriculum
 - products and deliverables will include student work samples, observational notes, etc.

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

- school teams have and will continue to use a variety of evidence to help identify the learning need (e.g. EQAO results, report card data, information on student profiles within IEPs and/or psychological reports, as appropriate)
- student work samples and observation will inform primary sources of evidence to understand impact of targeted strategies/interventions on student learning
- marker students will be identified; growth over time measured through student work samples collected over the course of the project to gain insight into strategies that may have influenced changes in student learning and thinking about mathematics

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
Release time	Central sessions to support CI process (7 schools x 3 staff members x 2 full day sessions x \$215 = \$9030)	\$9,030.00
Release time	In-school (7 schools x 3 staff members x one 0.5-day session x \$215 = \$2,257.50)	\$2,257.50
Fees	Ministry math facilitator to lead sessions 2 x \$700.00	\$1,400
Food	2 x \$400.00	\$800.00
Total:		\$10,000 (Note: \$3,487.50 in excess will be absorbed through departmental operating budget)

F. INQUIRY REPORTING

An interim report (progress check) will be prepared by the Researcher by January 19th, 2017.

**A final financial statement is due no later than Wednesday, May 31st 2017.
The final report is due no later than Friday, June 30th 2017.**

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

All the participating schools noted changes in student learning and professional practice. These are reflected in the following statements from participants:

All students had at least one manipulative that they were engaged in. Each student participated in his/her own way.

More focused on the use of manipulatives and visuals

"Informing how I write IEPs

Marker student was successful at grade level Math

Increased confidence and engagement in the class "Taking time to think about how a variety of materials can be used as manipulatives can have an excellent effect on student learning."

"1) The effectiveness of the use of manipulatives

2) The effectiveness of the use of visuals (i.e., anchor charts, general visual aids

3) The fact that what instructional practices/strategies we use for LD students is mutually beneficial for all students

4) Creative use of support teachers (i.e., co-teaching)

5) The importance of demonstrating/teaching in many different ways (i.e., hands on, verbal, technology, written, etc...."

Moving forward> "How can we help marker student moving forward to making connections between the content he learned and the future."

Schools noted the changes were evidenced by :

Using the Leaps and Bounds Diagnostic and counting the strand students responded to the provided intervention.

The strategies used during the lesson seemed to be effective in that the student achieved a level 3 in both tasks. The strategies seemed to be successful.

A copy of a lesson plan (Appendix A) and accompanying student work samples were shared as observed evidence of progress (Appendix B).

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

The only change to the original plan was the inclusion of 6 participating schools instead of 7. This was based on a re-alignment of schools.

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

The participating schools appreciated the benefit of using marker students to fully understand the learning profile of students with learning disabilities. This approach deepens the knowledge about individual students while at the same time advances the use of “universal design “ as a key strategy to plan lessons and assessments that are appropriate to a wider group of students. “What is necessary for some is good for all.”

The important transferable learning , as stated by one of the participating schools was :

" - Planning with the student profile in mind vs. covering content

- Developing content that corresponds to the urgent needs of your classroom vs. using prefabricated worksheets

-How to set IEP goals/ How they can inform your teaching

-Addressing other curriculum expectations while focusing on building the student’s capacity at grade level (i.e., algebra, number sense, proportional reasoning, etc.)

-The role of assessment (diagnostic, ongoing, summative) in ensuring student’s success
Assessment as learning- pivotal > using class Math routines as a form of ongoing assessment

-Customizing Math routines according to the students’ needs (i.e., identifying, representing, correlating different types of fractions)

How do accommodation help students with LD succeed? (i.e., manipulatives, Google Read and Write format, time, etc.)

-Taking a broad approach to manipulatives (i.e., chocolate, egg carton to transition towards standard manipulatives)

Does instruction and learning go beyond Math?

MINDSET> Empowering, building self-esteem, providing purpose to your student’s learning experiences, etc.

Learning skills> strategies

Mental stamina and resilience
Executive functioning building/ impact

Sharing Results

As well as providing the preceding final report, inquiry teams will present at the Ottawa Region PNC May 15th and 16th, 2017, Symposium. A template for the interim check-up and the final sharing, as well as guidelines for the Symposium presentation will be provided at the regional Orientation Day.

G. SUBMISSION

Please send this Proposal, signed by your Director, to David Fox, MISA PNC Coordinator by e mail cedarlanesolutions@bell.net as soon as possible and no later than Monday, November 7th, 2016.



2 Digit by 2 Digit Multiplication

Activate Prior Knowledge:

Show YouTube videos: “Three Times Tables” and play ball game with 3 times table facts. Teacher calls out a fact and tosses the ball to a student who will answer the fact. Strategic tosses to individual students.

Show the YouTube video “The Turtle Head Method”

Materials:

Multiplication Mat

Plasticine

Dry erase markers

Cloths/tissues

Base ten blocks

Duplo

Ipad

camera

Activity:

- 1) Hand out bins with materials. Give students multiplication mats and do an example on the board on how they will set up their board. 67×12
- 2) Put the question 42×12 on the board. Have students use given materials to create the question on their mat. Use given materials to solve the problem.

* Teacher will be recording using an ipad.

- 3) Once the question has been solved, take one picture of a group answer.
- 4) Put the next question on the board 66×49 . Follow the above steps. (you will need to carry)
- 5) A third question of 97×86 . Follow the above steps.
- 6) A fourth question the students will generate and follow the above steps.

(Questions get increasingly difficult)

Tidy up.

Oral reflection: What did you find challenging? What did you not find challenging? What did you change as you went along?

The individual learner that this lesson was created for struggles to remain engaged, on task and within the classroom. The activities that are outlined have been picked to appeal to the learner’s visual and kinesthetic strengths.

Repeated instructions will help support delayed processing and working memory. A visual record (photographs and videos) will be used to support his executive functioning by promoting positive past experiences to draw on.

Examples of Student Work

