



Networks of Inquiry and Innovation **Aboriginal Enhancement Schools Network**

2016 - 2017 AESN / NOII Case Study

School Name: Fort Rupert Elementary

School District: SD#85 Vancouver Island North

Inquiry Team Members: Kristi Graham, Andrea Williams, Marlei Boyko, Christina MacDonald

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Type of inquiry: NOII

Grade levels: Primary (K - 3), Intermediate (4 - 7)

Curricular area(s): Mathematics / Numeracy

Focus area(s): Differentiated instruction, Flexible learning

In one sentence, what was your focus for the year?

Learning new methods of math instruction to increase learner engagement and proficiency in mathematics.

Scanning: Briefly summarize your scanning process. How did you use the four key questions as part of the scanning process? What did you notice about the experiences of your learners that were most important to your team?

When scanning, we noticed that when using power of 10 manipulatives and games, students were engaged in the learning process and quickly grew their mathematical thinking in terms of breaking numbers apart and putting them together. All students became very proficient with making mental pictures of numbers. Students when asked about their math learning, were becoming better at orally talking about their math thinking and strategies. The First Peoples Principles of learning tells us that learning is patient and takes time, our math journey has taken us three years, and we are not complete. Students also had opportunities to learn from elders and indigenous community members who taught us about the math in carving and making traditional medicines.

Focus: In a few sentences, explain why you selected this area. What changes were you hoping to obtain for your learners?



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We selected Math as our school data confirmed what we were seeing, that students were not confident in their math thinking. We also knew, through collaboration with our high school math teachers, that they also noticed students did not have the skill set of basic facts to assist them in high school math. We were hoping to increase our learners self confidence in themselves in their abilities in math.

Hunch: Describe your hunches about the ways in which practices at the school may have been contributing to the experiences of your learners that were of concern to you.

We knew learners were not successful using text books or bought programs and that students did not see themselves as good at math. because we were not providing enough real life , authentic, hands on practice.

New professional learning: What new areas of professional learning did you explore? What resources were most helpful? What specific designs did you use to support the learning of your colleagues?

We engaged in learning about the Power of 10 math resources and purchased power of 10 cards and resources for each teacher. We also used the peer coaching model with teachers from another school in our district who had been learning about power of 10 for a few years prior to us. Teachers visited their school, and teachers from their school came to our school.

Taking action: Describe strategies you and your team decided on and how your actions worked out.

We decided to share what we learned at a staff inservice day. We also shared out at some staff meetings. Teachers felt that they were able to talk about and share their strategies with each other. The best action all agreed was when we worked with a teacher from another school, or when we were able to visit their school and see it in action.

Checking: Summarize the differences you made. Were they enough? Were you satisfied?

We felt that we made a significant difference, in that students ability to talk about how they solved a math problem has increased. Students are also able to identify, using words what they can do in math and where they are going to next. We used the Island Numeracy DMA as our baseline data, however we also used anecdotal math conversations that we had with



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our learners on a regular basis as a way of assessing what students knew. In some cases, students were photographed or recorded, and then these pictures of recordings were uploaded to freshgrade to be shared with parents. These also became the basis for student self reflections on their math learning.

Reflections/Advice: Finish by sharing what you learned from this inquiry, where you plan to go next, and what advice you would offer other schools with a similar interest.

We were reminded of the power of collaboration for teacher learning, as well as how powerful the visual artifacts (photos and videos) are for parents and students to feel part of the classroom. We learned that our next step is to continue with coaching students on accurate self assessing and to know their next step.