



## 2013-2014 AESN Case Study

**School:** Lillooet Secondary School    **District:** SD74 Gold Trail

**Area of Focus:** Enhancement Agreement

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**Question / focus area:** This was a continuation of a previous inquiry focusing on math questions at the grade 8 level. We felt that the textbook was missing a local flavour component so we had designed math questions that our students could work on in the hopes that they could see math in everyday occurrences, nature, and experiences. Because our school has a significant First Nations population, we felt that math questions based on local culture would entice our students to be more engaged.

**Scanning:** We noticed that our students were very engaged with the questions. We felt that because the topics were related to most of their cultural and past experiences, they enjoyed reading the new questions. Also because the questions were completed on a regular basis (every second day), the students looked forward to the new questions to see how we made them relevant to the math topic at hand.

**Focus:** Learning professionals are acutely sensitive to the individual differences amongst learners (including their prior knowledge), and learning professionals need to be tuned into learner emotions and motivation, while understanding the key role that emotion plays in learning. We want math questions to be about local knowledge and history while having a distinct First Nations flavour.

**Hunch:** We feel that by having questions that are close to home, geographically as well as culturally, the majority of our students will be more engaged and see the value of math in everyday situations.

**New professional learning:** By being exposed to these questions, we found that we became more sensitive to our First Nations students and in some cases made an extra effort to learn the proper pronunciation of the Stl'atl'imx words. At the start of assemblies, it is now regular practice to acknowledge that we are on traditional land. Perhaps this is due in small part to our sensitivity to proper protocol based on our inquiry.

**Taking action:** We decided to continue with the math questions and enhance them near the end of the school year, as time would permit. In addition, we planned to create a booklet of Aboriginal word problems designed by the students that involved research of their culture within and surrounding our community and application of math concepts to this newly found information. Unfortunately, we missed a significant number of classes and had to forgo the enhanced questions and completion of the booklet that we had planned on. Next year we will jump on this possibility to bring in photos of the surrounding area and have students develop their own questions early in the year, in possibly both grade 8 and 9.

**Checking:** We were very satisfied with the results. Our students completed approximately 50 questions. The pattern was set early in the year and we felt that they looked forward to the questions. The grade 8 classes alternated between the Aboriginal questions and Mad Minutes (times tables) every second day. We did a baseline check at the start of the year but we were unable to redo. We also think that a better method of checking needs to be developed.

**Reflections/Advice:** As this project was an extension of last year, we learned that even with a new group of students, the expected results were the same and the enthusiasm to do these math questions makes it a valid and worthwhile project. There is still room for improvement and this is something we need to look at in the next year. Perhaps an extension to grade 9 and 10 would offer a continuation of the inquiry.

Another idea we have been thinking about is incorporating technology, as our school is rich in laptops and wireless connectivity. We have and are also willing to share our questions with other schools. Two years ago we presented at the UBC Aboriginal Math K-12 Network and the response was phenomenal. We have also shared this resource within our own school district through our District Numeracy Group. As we continue to move forward our future graduates will be designing their own V-stoles with memorable learning experiences from each year embedded into the fabric. It is our hope that many of them share their cultural word problem they designed and possibly published while at Lillooet Secondary School.