



## 2015-2016 NOII Case Study

**School:** Nakusp Elementary

**District:** #10 Arrow Lakes

**Inquiry Team Members:** Sheri Boswell, Sally McLean, Keith Greenhalf and other members of the CR4YR team

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**Our focus for this year:** Our focus this year was on improving math comprehension and numeracy skills in kindergarten.

**Scanning:** We have very confident learners this year who are willing to take risks and enjoy working/learning with lots of different people (adult or child). As a whole group, they also present with strong social/emotional skills. These students connect with a variety of adults in their classroom and these connections are important to them. Their level of risk taking correlates with the positive connections with adults/peers and their willingness to stretch and grow. Kindergarten students are naturally inquisitive and are just beginning to identify their own strengths, relying less on teacher ques. They can work on simple goals and remember to do them, with minimal prompting.

**Focus:** We selected this math focus due to district data that demonstrates that we need to improve in numeracy skills K-7. We are hoping that if kindergarten students gain important foundational math skills they will develop a positive attitude towards math. This should make a difference as they continue to see themselves as confident mathematical thinkers in other grades.

**Hunch:** Our focus at NES and in our district has been on literacy skills in recent years. Most district professional development and school based professional development has been around literacy, consequently mathematics seems to have suffered. My hunch is that students generally lack confidence in math skills and are reluctant to take risks and may be missing some important foundational numeracy skills.

**New professional learning:** This year our district hired a private consultant in the area of numeracy to work with teachers in our district to explore and learn new ways to teach math with rich and open-ended math lessons and sequences. We have read her book "Number Sense" and her other resources online such as linking math and literature, creating meaningful math routines, and financial literacy in primary. She also introduced to our teachers a more useful math assessment. We are also collaborating with the learning resource teacher to create games/math activities on the Smartboard.

**Taking action:** We decided to implement whole class, open-ended math games targeted to the skills that were suggested are important for early primary: patterns, partitioning and subitizing.

**Checking:** Students enjoyed playing the games and all students could participate in the whole class games. We are satisfied with student engagement and growth that we observed, but we would also like to use these games more often.

**Reflections/Advice:** We have learned that when you focus on an inquiry question and implement actions to make positive changes, it makes a difference in student's abilities and possibly, attitudes. Kindergarten students love games, and whole class math games focused on patterns, partitioning and subitizing was a developmentally appropriate good fit. We highly recommend any professional development with the consultant and would refer others to her website <https://mindfull.wordpress.com/>. We want to continue to explore creating games for the class utilizing the Smartboard. We are also going to look further into the structure of primary math lessons: re-connect, big math ideas, mini-lessons, exploration, play, daily dose, and debrief.