



Giant's Head Elementary School

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Principal: Miles Smitten
Vice Principal: Scott Edwards

SCHOOL IMPROVEMENT PLAN (2009-10)

Giant's Head Context

Giant's Head Elementary, located in Summerland, B.C. was built in 1970. In 1976, two classrooms were added as well as an addition to the gymnasium and a library resource area. Further additions to the building were made in 1988. In 1999, MacDonald Elementary School in Summerland was closed and several teachers joined the Giant's Head staff. Due to this closure, there was an increase in student population at the school as well. The school was then reconfigured from Kindergarten–Grade 7 to Kindergarten–Grade 5.

Currently the student enrolment is 360. There is a teaching and support staff of 35. It is a school that:

- is committed to learning and intellectual growth
- focuses on the importance of human and social development
- allows each child to work to his or her potential and beyond
- values and encourages parental support and involvement
- is dedicated to the preparation of caring and responsible learners

The school is supported by several service groups, community organizations and an active PAC. This support provides a meaningful connection to the surrounding environment and offers students the chance for involvement with and service to others.

INQUIRY QUESTION(S)

Our inquiry question started as a set of 4 questions. However, as we moved through the process, it has occurred to the staff that we need to reevaluate our questions and narrow to a school wide focus.

RATIONALE: What evidence compelled us to ask this question?

Giant's Head has recognized success in the areas of Language Arts as seen by an increase in our FSA results and the staff's perception of student's work as demonstrated in class and on school wide assessments. During our summer school implementation day in August 2009, the staff unanimously decided that they would like to explore ways to improve our teaching of mathematics. Based on FSA results and teacher perceptions, there was a feeling that student achievement in math was an area that could be improved. As discussions progressed during the implementation day and subsequent staff meetings, four areas of concern came into focus. These were:

- How do we improve basic math skills?
- How do we improve the home/school connection?
- Will journaling help students improve metacognition?
- How to improve problem solving skills?

ACTION PLAN

OBJECTIVES: Specific Steps to answer our question or more specific questions?

As these questions were further discussed there was a realization that these were neither simple questions with simplistic solutions nor was there an obvious sense of the best approach or best strategic plan. Further, we were not even sure if these were the best questions or if these were questions that would lead us to student improvement. From this point, a learning community was formed on a volunteer basis as a way of looking into these questions on a deeper level with the support and expertise of the district helping teacher in math.

STRUCTURES AND STRATEGIES: For all students and our most vulnerable learners.

Flex funds were used to release grade group teams to discuss strategies for supporting at risk students and for challenging exceeding students.

ASSESSMENT PROCESS & TOOLS: What will we use to measure our success?

To be determined next year as we look at assessment for learning in math.

PROFESSIONAL LEARNING: How will we increase our capacity and collaboration?

Learning Communities –This is a team of seven people which represented grades 1-5. They met eight times over the year. The first four sessions incorporated Steve Lapointe who is the district helping teacher in Math. Tasks are defined as activities that incorporate several math skills and numerous attempts to solve.

As a learning community we initially looked at using math tasks as a way of breaking down barriers to math, for example; engagement, resiliency, cooperative work (distribution of knowledge from peer to peer) and the concept of lessons needing a low floor and high ceiling (entry points for students with lower understanding while at the same time being challenging enough for those with a greater understanding) as a way of allowing all students access to learning at their level. The group saw the tasks as being effective in the areas targeted but had difficulty synthesizing tasks and specific curriculum outcomes. The next step in the schools journey included a book club where we analyzed "What's Math Got to Do with It!" by Jo Boaler as suggested by Steve Lapointe. Finally, a sub-committee was formed to create a plan to help focus the next stage of our inquiry by planning the topics to be discussed during our August professional development days and setting the stage for next years staff meetings and learning communities.

RESOURCES: What do we currently have and what do we need?

- Steve Lapointe - District Helping Teacher in Math
- Jo Boaler - What's Math Got to Do With It"

EVIDENCE

KEY FINDINGS: What did we find out?

We focused on examining the learning of math through the use of task based activities and how that would look in an elementary classroom. As the year progressed we realized that low floor/high ceiling tasks were incredible at raising the engagement of students which resulted in an increase in perseverance and, in turn, an increase in positive attitudes toward math. However, we did feel that though task based math did increase the positive interdependence of students, there were times when teacher directed instruction was needed. Because elementary math introduces basic math concepts, we felt that students lacked the requisite skills to help one another at the necessary level. While many students are able to help others, students at this level cannot be relied upon to clarify or teach fundamental concepts. As students reach later grades this may be different as they would then have more exposure and fewer gaps in their understanding.

REFLECTION AND SUMMARY

REFLECTIONS: What did we learn? How did it make a difference?

As a result of our work this year we are orienting our professional development for next year around a number of key considerations. First, we will be developing a scope and sequence along with a set of criteria in relation to the "Traits Good Mathematicians" possess. Second, we will be looking at using a variety of diagnostic assessments (First Steps in Math, North Island Math Assessment, Brigance Rating Scales) to pre-assess students skills and determine plans of actions for teachers as they go into specific units. Tied to assessments, we will be evaluating assessment for learning practices to be used in the class. Finally, we will be exploring alternate ways of teaching math in the classroom.

FUTURE PLANNING: Where do we go from here?

For the purpose of authenticity and school wide engagement, it is important to both staff and administrators that our schools inquiry is staff developed and supported. Consequently, our next few steps will be based on the recommendations of our learning community sub committee, however, actions taken beyond the recommendations will be determined early next year as we examine and discuss our options. The format for discussions will be as follows:

August Professional Development Days	1.5 days
Implementation day	0.5 days
Staff Meeting Professional Development	Monthly
Learning Community	Times to be determined

Inquiry Question- this will be refined as a staff but the proposed question is:

"How do we connect theory and practice in the classroom?"

Recommendation 1- Common Language:

Through our experiences with the learning community and book club, we have decided that one of the key components to our success in Language Arts was a common language used at all grades. In Language Arts, the vocabulary was focused around the reading comprehension strategies. Lessons were tailored to specifically teach the vocabulary and skills necessary to improve student's ability to derive meaning from text by being aware of and using comprehension strategies. We will use a similar approach for math. Based on the Boaler book and our experience with math tasks, the learning community/book club has made a list of skills that we believe are crucial to building students numeracy skills. These skills, in no particular order, will be:

What are the traits of a good mathematician?

- Flexibility in thinking - often our students believe there is only one way to solve or approach a problem. Flexibility in thinking will encourage our students to draw on their prior knowledge to use a variety of strategies when solving problems or acquiring new skills.
- Team Work- students will be encouraged to distribute knowledge and support each other.
- Communication/ Organization.
- Persistence.
- Interpreting Problems.
- Computation/ Accuracy.

After the staff finalizes our list of strategies, we will look to create a set of criteria in the form of rubrics for each of these concepts for each grade level that will be based around the question: What does good (strategy) look like?"

Recommendation 2 - Assessment:

Our group has recognized the fact that traditional methods of teaching math have often focused on summative assessments whether they be at the end of a unit or mini quizzes part way through. Through our professional development we will be looking at assessment for learning in terms of what that would look like in a math classroom and how we can best utilize it to help students be reflective of their learning.

Similar to our school wide reading/writing assessments which are implemented each fall and spring, we are considering different assessments which could be used to help guide instruction for the year.

Finally, we are considering the need for and use of informal surveys as a gauge for student attitudes and perceptions.

School Planning Council:

Name (Principal): _____

Name (Parent): _____

Name (Parent): _____

Name (Parent): _____