

Analysis of Data **Developing the PFI Plan**

1. What are you doing well?

What is the school doing well? What successes have you identified?

As a school, we have placed a focus on increasing student achievement through a variety of measures. At John Martin, there is a focus on working as a team, within our grade levels, school environment and the community. Through our teamwork approach, we have identified several areas of success within our school and school community.

Classroom Success

The use of curriculum mapping in English and Mathematics has allowed us to have a common focus for student achievement, curriculum planning, and goals. The opportunity to meet as a team at our weekly grade level team meetings has created an opportunity for collaboration among all grade level teachers and support staff, as well as creating an opportunity to access the support systems in place for students through guidance, resource, learning center, student support, our African Nova Scotia support worker, and our First Nations Student Support Worker. Our teaching staff have a variety of supports in place through their grade level teams, through mentoring with our literacy and math coaches and co-teaching models within our school with our resource teacher and mentors.

Our students also have access to our guidance councillor to support their personal development and peer relationships. Our students are also provided with a variety of opportunities to express themselves in non traditional classroom settings, such as Technology Education, Art, Drama, Music and Family Studies.

Professional Success

A variety of success has been seen professionally in the development of our staff. Monthly on site staff professional development during staff meetings and grade level meetings (PLC's, RCH Bias Tool, LGBT, assessment policy, students led conferencing, student motivation, public health nurse, literacy strategies across curriculum, planning for diverse learners, cumulative records). Our literacy and mathematics coaches support ongoing teacher professional learning by working with classroom teachers. In-servicing and the implementation of a variety of technological applications for students and teachers has also been demonstrated within our school through the use of a smart board, classroom suite, keyboard writers, adapted keyboards, calculators, LCD projectors, access to web based resources, Fusion, Kurzweil and Co-writer. We also have a high percentage of staff seeking out professional development (Master of education programs, student teachers, independent studies, summer institutes, leadership development program and lead team initiatives.)

Other areas of success

Our school continues to offer a variety of lunch time and after school programs to continue to foster the development of community and citizenship within the John Martin student body. Our lunch time and after school programs include intramurals, the games room, computer lab, library, extra help, band, guitar club, after school gym program, sports teams, drama, chess, year end dance committee and dances. We also present our students with opportunities to celebrate student achievement and success through such activities as Math Olympics, Science Fairs, Dramatic Productions, Closing Ceremonies, student work on display in hallways, Sports teams and Positive Participation assemblies and awards. The recognition of student success is also recognized through term academic awards, positive participation assemblies, teacher certificates, student of the month recognition, positive phone calls home and class initiatives. Our students continue to benefit from the support of external support with our school based breakfast program that is available to all students each morning and the use of health promotion grants to support students health needs within the school.

How are your students succeeding in literacy?

As a team, the English Language Arts teachers have seen a significant amount of turnover. We are beginning to see growth in student achievement in the areas of ideas and word choice, as well as the use of reading strategies to improve comprehension, although this is in the early stages of development. We are active in finding ways to support student success through the workshop model and continued professional development.

We have spent the last two years collecting data from our running records, CAT assessments and school based common writing assessments. At the school level we have focused on collecting data highlighting student achievement in reading comprehension and writing organization. Through running records, it has been demonstrated that our students have a high accuracy and fluency rate and they are continuing to make improvements in comprehension. Through school based common assessments, board assessments and provincial assessments, we have noted that our students can represent their ideas well and are showing continued improvement in matters of correctness. Improvements are needed in the area of organization.

How are your students succeeding in mathematics?

As a team we have seen growth in a variety of areas of math. We are consistently seeking ways to improve student achievement. We have had a consistent team of teachers in our math department for the last three years and it has made it possible to continue work centered on past our goals of improvement in the areas of problem solving and fractions.

At the school level we have focussed our data collection on problem solving and communication of problem solving strategies. As well we have looked at two key areas

of basic number sense. We have assessed student at all three grade levels in their ability to work with fractions and integers.

These assessments take place in the early fall and late spring of each year and the assessments are based on the Nova Scotia curriculum specific to each grade level.

When we look at the specific curriculum areas where students have been achieving at the highest levels we can see that students are doing well in algebraic patterns, data management, order of operations, and integers operations. (See table 2.1)

We can also see a steady improvement in most areas of the curriculum shown by the grade 9 HRSB Cat 3 assessment.

2. What trends do you see in the data?

At John Martin we have focussed on literacy, numeracy and climate for the past 4 years through the planning for improvement model. We have collected data in all three areas for the past three years through board and school based assessment tools. We have progressed towards goals that look at numeracy, literacy and school climate. Many of these goals have changed over this time as the strengths and needs of students and staffing has changed. However, we know that we have evidence to support our decisions. As a school community we have a common understanding of the trends in our student achievement data.

Trends in Literacy

At John Martin we have a dedicated team of teachers who work toward improving literacy across all areas of curriculum. We have department of education data for our students from their elementary language arts assessments which were completed in grade 6. We also have intermittent school based data on both reading and writing. English language arts teachers have also collected their own classroom based data on student achievement. This data has pointed to three possible target areas to improve student achievement.

1. Organization – writing structure, paragraphs and sentence structure.
2. Reading Strategies – making connections, making inferences, determining importance
3. Matters of Correctness – writing using proper conventions.

In 2006 /07 the school began conducting running records to track fluency, accuracy and comprehension in reading. The data collected unfortunately has not provided an accurate picture of student achievement. This assessment tool was therefore adjusted over the past three years. The data from this tool showed that our students were capable in the areas of fluency and accuracy and needed further improvement in comprehension.

In 2007/08 a school based common writing assessment was developed. This new tool was designed to support the classroom based data from teachers across the curriculum which showed that students needed to improve in the area of organization and matters of correctness. The finding from the initial data supported the teacher's classroom based data.

Our student's elementary language arts assessment data also points to writing as an area of need with respect to student achievement. This data reinforces what classroom teachers and our school based data found which was that the areas of greatest need in literacy are organization and matters of correctness.

Trends in Mathematics

Within our mathematics department we have collected data through the HRSB Cat 3 assessments in Grade 9 and the new 2008/09 Cat 4 assessments at the grade 8 level. These assessments indicate a number of areas that could be targeted for improvement. Year to year there were areas that showed gaps in student achievement. Each group assessed had different strengths and needs, the area that consistently ranked amongst the highest priorities was problem solving.

In 2006/07 teachers reported a trend in their classroom based assessment data that suggested students needed to improve in the areas of basic fractions and integers. At that time we developed a common assessment for all grade levels to get a closer look at this issue. We also targeted these areas by improving our stock of hands on learning resources and best practice teaching strategies around these topics. Consequently, we saw an improvement in these two areas of mathematics.

However, problem solving continues to be an area of need for our students. The assessment results show small improvements in communication of mathematical ideas and concepts but not at developing strategies and applying mathematics to real life situations. A new approach is necessary as we work toward targeting this continuing trend in our school achievement data.

Table 2.1 John Martin Junior High Cat 3 Math Data 2005 -2008

Grade Level of Student Assessed	9	9	9
Date of Assessment	Jan-06	Jan-07	Jan-08
YEAR	2005 -2006	2006 -2007	2007 - 2008
	percentile rank	percentile rank	percentile rank
National Percentile Mathematics	23	27	38
National Percentile Comprehension and Estimation	31	30	65
MATHEMATICS	Percentage*	Percentage*	Percentage*
Number Concepts	26	32	48
Measurements	35	49	43
Algebraic Patterns	61	51	75
Data Management and Probability	70	76	83
Geometry and Spatial Sense	58	55	58

COMPUTATION and NUMERICAL ESTIMATION			
Order of Operations	59	70	78
Algebraic Number Operations	49	52	60
Fraction Operations	23	19	40
Integer Operations	72	65	74
Problem Solving	11	17	25
Communication	9	23	28
*(% of students meeting expectations)			

Trends in Climate

During the past three years at John Martin Jr. High, office referral data has shown that trends in climate have been positive. Specifically, the number of office referrals and suspensions has decreased. In addition, reinforcement of positive behaviour in the school has moved from extrinsic motivators to a place of intrinsic, truly genuine acknowledgement and reinforcement. This pervasive approach to reinforcement of expectations and recognition of positive behaviours are continually taught and practiced. Students who demonstrate respect for school expectations and exemplary approaches to their learning are rewarded and remain motivated via a variety of in-school programs and fixtures designed specifically to improve student achievement and increase motivation for learning, which include (but are not limited to) the following:

- Matrix of behaviour expectations that are taught and reinforced consistently
- Expectations of behaviour signs posted around the school
- Student displays of work
- Academic achievement postings and student of the month recognitions in the office area
- Positive phone calls home
- Classroom shout outs to recognize successes in the classroom
- Positive participation assemblies
- Guest speakers (Dr. Lynette Anderson, Halifax Rainmen, various book authors)
- Teacher/student hockey league
- Lunch programs (such as intramurals in the gymnasium)
- Special areas of the school that students enjoy when they have success in the classroom, such as the games room and theatre room
- School basketball court and courtyard area
- Community partnerships (United Way Action for Neighbourhood Change, public health, community liaison officer)

3. What challenges do you need to address in order to make the greatest difference in student achievement?

Mathematics

Our Mathematics team has been collecting and using data to guide our teaching over the past three years. When we examine our student achievement on board based assessments for the past three years we can identify a variety of areas with depressed

student achievement. The areas of greatest concern have been fractions, whole number operations, measurement, and problem solving. As a collaborative team we have looked for resources and learning opportunities that might aid our students in achieving success in these areas. During our team meetings phrases like the following were common.

“How can our students make gains at the more complex areas of mathematics (algebra and problem solving) if they struggle with the basics?”

“How can I teach them math if they simply don’t care?”

We have worked hard as a team to try new approaches with the mathematics curriculum. We reflected on what ways we could improve the basics and complex learning simultaneously. It was through such discussion that our team came to the realization that problem solving had to be an integral and embedded part of everyday teaching practice. By starting each lesson with a real world problem that is of interest to students, we get them thinking about how math is part of the real world through this we can increase student engagement and use this problem as a starting point for learning about any aspect of mathematics.

Using a constructivist model to raise the cognitive demand we could really make gains in teaching students the basics and the problem solving. It was from this place that we decided that problem solving was the area we could make the greatest impact on student achievement.

Literacy

In order to make the greatest difference in student achievement in literacy, we must take into consideration the implementation of the literacy curriculum. Our school has a diverse range of learners and abilities; therefore, we had to consider this when determining what literacy goal would have the greatest impact on student achievement.

When considering our school goals, we looked at reading comprehension, matters of correctness and organization in student writing. Through the use of running records we were able to recognize that our students need continued development in the use of reading comprehension strategies across the curriculum. Through an examination of the Elementary Literacy Assessment (ELA) results, the CAT 4 assessment data and our school based writing assessments, matters of correctness and organization were identified as challenges in our student achievement.

Upon meeting as a literacy team we examined reading comprehension, matters of correctness and organization, and questioned which area of literacy would have the greatest impact on student achievement. Due to the fact that our school often presents below both HRSB expectations and Canadian standards, we debated our decision on which of these 3 areas of literacy would have the greatest impact on student performance.

Our rationale for selecting organization as our literacy goal was founded on the premise that both matters of corrections and reading comprehension can be used as strategies to

enhance organization within our student’s writing. A school-wide focus on organization within student writing will allow our students the opportunity to see the importance of this writing trait across the curriculum. A goal of organization also allows for differentiation among our students, whether it be the structure of a paragraph or the structure of an essay. Through the use of reading strategies and matters of correctness as strategies to improve organization, a greater level of student success will be achieved.

4. Based on the challenges you identified, what are your goals for student achievement?

Goal # 1:

Our goal is to increase student achievement in problem solving.

Goal# 2:

Our goal is to increase student achievement in the area of writing with a focus on organization

5. What strategies and data will you use to achieve each goal?

Goal # 1: <i>Our goal is to increase student achievement in problem solving.</i>	
Strategies to achieve the goal:	
<ul style="list-style-type: none"> • Focused instruction of the 4 part problem solving model taken from the <u>Understanding Math.</u>(Grade 7 – 9 textbooks.) • Teaching Strategies that connects math to the real world through the use of multiple representations of concepts and hands on learning with manipulatives. • Improvement in reading comprehension by incorporating reading strategies, and vocabulary building into the everyday routine in each math classroom. • Increasing engagement for students in all areas of curriculum by incorporating problem based learning in the non - math classroom. • Instruction targeted at strengthening basic skills in all strands of math. • Continued work on PLC development focused on student achievement in problem solving. 	
Professional development to support achievement of the goal:	
Staff will engage in the following learning activities....	Staff will learn the following from the professional learning activities
Professional learning community of math teachers to be planned into teaching schedules.	Through the use of our common school wide assessment tool we will have an opportunity to share results and fine tune our practice to improve student achievement
Lesson Studies on problem solving	Best practices for lesson planning and delivery
Professional learning in the area of literacy in mathematics	To promote vocabulary development and enable student to make connections within the strands of mathematics, other subjects and the real world.
Professional conversations and P.D. on	Ways to engage students in the assessment

assessment practices	process as well as inform instruction.
Staff wide in servicing on problem based learning	Differentiated approaches to teaching and the constructivist model.
On going work with Mathematics Coach	Collaborative practices that will improve classroom practice, student engagement and in turn student achievement
Differentiated Instruction	Planning and programming for the diverse learners in our school community so that all students improve in the area of problem solving.

Data Sources:		
What data will you collect?	When will you collect the data?	Who will be responsible for collecting the data?
HRSB CAT 4 Assessment (Grade 8)	To be set by HRSB	Math Leader and Principle
School based common assessment	Once per term	Math Leader and classroom teachers.

Goal # 2: <i>Our goal is to increase student achievement in the area of writing with a focus on organization</i>	
Strategies to achieve the goal:	
<ul style="list-style-type: none"> • Teachers will employ readers and writers workshop models in daily classroom instruction with mini-lessons that explore organization within student writing and a variety of genres of writing • A school wide approach to structured student writing in all curriculum areas (e.g., paragraph development, answering in complete sentences, short answer questions, report style writing, etc.) • Teachers will continue to use the ‘Write Traits’ model to develop student writing (a focus on organization, ideas, word choice, voice and matters of correctness) • Modelling good student writing that demonstrates strong organization (through the use of exemplars, student work, teacher – student modelling, etc.) • Students will engage in writing everyday. (report writing, problem solving, journals) • Teachers will participate in PLC time to share assessment data and fine tune our practice to improve student achievement. 	
Professional development to support achievement of the goal:	
Staff will engage in the following learning activities....	Staff will learn the following from the professional learning activities
Staff Professional Development on writing strategies	- key ideas for mini-lessons
Reading/Writing workshop – classroom observations, school visits, co-teaching	- collaboration and sharing of best practices to enhance student achievement
Professional learning community of English	- opportunity to work as a team on

teachers planned into teacher schedules	development of authentic and real-life literacy strategies - continued development of curriculum alignment and scaffolding to promote student progress	
Development of a school based writing assessment tool to develop school wide expectations for organization	- clear expectations for writing across all areas of the curriculum	
Data Sources:		
What data will you collect?	When will you collect the data?	Who will be responsible for collecting the data?
CAT 4 HRSB Assessment Grade 8	October and February	Literacy Leader and Principle.
Elementary Literacy Assessment (ELA)	Each Fall to examine the results of our new Grade 7 Students	Leader of Literacy Support Plans and Literacy Leader.
School Based Common Writing Assessment	3 times/year 1 piece of data per term	ELA Classroom Teachers, Literacy Support Teacher, Literacy Coach

6. How will you involve the SAC, the families, the students and the wider community?

Our school advisory council (SAC) is actively involved in the accreditation process at our school. Ongoing, timely meetings inform SAC members of the following: the accreditation process itself, where students currently stand with respect to our school’s literacy and numeracy goals; the steps being taken to move toward accomplishing our accreditation goals and thus ensuring greater student achievement; and finally, results of current literacy and numeracy assessments (province, board, and school-wide) and the resulting trends in data. In addition, SAC members are invited to make suggestions with respect to our current accreditation process, as their input is invaluable to the success of our students.

Families, like the SAC, are updated on a regular basis with respect to our school’s accreditation process, as well as current assessment results in a variety of ways, such as the monthly newsletter, the school web page, teacher WebPages, and ongoing contact via phone calls and email. It is essential that families not only be informed of the ongoing accreditation process and our school’s literacy and numeracy goals, but that they have a voice in this process, as their investment in the success of our students and school is immeasurable. Finally, the central location of John Martin in North end Dartmouth has contributed to it being chosen as the future site of a community sign, which we feel can only increase the ongoing communication between school and community.

The main objective of our accreditation plan is to increase student achievement. At John Martin, we feel that recognizing student success, both academically and behaviourally, is key to student and school growth. Therefore, we ensure that students are recognized for

their positive contributions to the school and to their individual academic careers in variety of ways, which include: math Olympics, science fairs, dramatic productions, displays of student work in the school, sports teams, academic awards, positive participation assemblies, teacher certificates, student of the month recognition, and positive phone calls home.

In addition to families and the SAC, we make a conscious effort to involve members of the wider John Martin School community as we strive for improvement and increased student success. This involves accessing and building relationships with the police liaison officers in the community, members of the Dartmouth Boys and Girls Club, local politicians, Feed Nova Scotia, the Dartmouth North Community Center. In addition, we invite a variety of guest speakers into the school, and students participate in activities that are sponsored by community members, such as a swimming program in association with the Dartmouth Sportsplex, as well as the annual Holiday Dinner, which is made possible by members of the Dartmouth North Community.