



# **Analysis of Variance Reporting**

School Name:	Stratford Primary School	School Number:	2244		
Strategic Aim:	<ul> <li>6. To be ready and willing to embrace those technologies that advance and enhance teaching and lift student achievement and engagement.</li> <li>7. To monitor, evaluate and report on student progress in the foundation skills (NAG 2A) and target resources and professional development to address identified areas of need to enable all students to successfully access the NZ Curriculum.</li> </ul>				
Annual Aim:	AIM 1: Target to Raise Student Achievement in Mathematics and Writing; (refer to Key Goal 6,7,11) and AIM 2: Target to Raise Teacher effectiveness in assessment, inquiry and optimal learning model usage (refer to Key Goal 2, 3, 4, 6, 7, 10, 11)				
Target:	Last year's Analysis of Variance showed that progress had been made in some areas but not in a consistent manner. Boys are still overrepresented in our below data. Targets for 2016 will therefore incorporate boys and Maori boys, which are over represented in students not achieving.				
Baseline Data:	Mathematics: Analysis of school-wide Mathematics data (OTJ's against the writing National Standards) identified some areas for improvement across the school. The data shows that last year we had 28% of our students Below or Well Below the National Standards. This is a 1% improvement on 2014. During our ERO review in 2014 we were challenged to ensure that our target group was of a narrower focus band. With this in mind, again this year, we have analysed the data and chosen specific cohorts that represent specific groups of students that are below the National Standards.  MATHEMATICS COHORT – YEAR 5: Our focus is to improve the Mathematical knowledge for all children at SPS with a specific focus on boys				





We have 9 Maori boys across the school from Year 4-8 who are Just below the standard for Mathematics. We will target 5 of these boys as a target group looking at how we can raise student achievement. Each of these students will have an IEP with a focus around joint whanau/student and teaching interventions (overall effect size 1.81) and teacher designed interactive homework with parents (effect size 1.38).

Our Year 5 student group has 23% of boys Just below the National Standards in Mathematics. The target cohort comprises 7 boys, 2 of which are Maori boys. These 2 groups will be the focus groups for mathematics for 2016. Using our SMS this group will be tracked separately for reporting purposes. The target for these groups of students is to make accelerated progress and move from Below the standard to At the standard by the end of 2016.

#### **WRITING COHORT - YEAR 3**

#### Baseline data:

- 5 Maori boys in Year 3 (Year 2 cohort in 2015) were just below National Standards in Writing at the end of 2015
- 11 Year 3 boys (Year 2 cohort in 2015) were just below the National Standards in writing.

### Target Goal:

- Group A: 5 Maori boys in Year 3 will make accelerated progress and achieve National Standards in writing by the end of 2016.
- Group B: 11 boys in Years 3 will make accelerated progress and achieve National Standards in writing by the end of 2016.
- Note: Each Team will have target learners; the BoT will just monitor the above group. No individual learners identity will be shared outside the teaching staff,

### How will this be achieved?

- Students learning will be accelerated through Deliberate Acts of Teaching (DAT)
- Spiral of Inquiry will guide best practice.



### Tātaritanga raraunga



### Actions: What did we do?

#### **Mathematics:**

Received professional development in Mathematics as a whole staff.

Teams from Year 5-8 had a 'Teaching as Inquiry' focus.

During staff meetings we revisited shared beliefs around the teaching of Mathematics.

Team Leaders observed teachers in their teams and identified good practice.

Children were identified to be part of 'Alim' professional development

Analysed Mid Year data was used as a reflective point to guide future decision making.

# Outcomes What happened?

### **Group A (Maori Learners):**

Number of students in this group=5

- 3 learners have made accelerated progress (More than one year's progress).
- 1 student has nearly made accelerated progress but are still below.
- 1 student is still below expectations.
- Overall progress = \% students (60\%).

### **Group B (Other Learners):**

Number of students in this group=7

- 6 learners have made accelerated progress (More than one year's progress).
- 1 student has nearly made accelerated progress but are still below.
- Overall progress = 6/7 students (86%).
- Note: 4 learners have left.

# Reasons for the variance Why did it happen?

The Leadership Team have strengthened the monitoring and reporting process for priority learners.

Targeted teacher actions have accelerated most learners progress in the two groups.

Maori learners are still not accelerating as fast as pakeha learners. Further next steps are being explored for 2017.

Teacher knowledge has improved through this year's Spiral of Inquiry and Alim training.

Teachers better understand the mathematics progressions.

Mathematics PLD has challenged traditional beliefs and changed teacher practice.

There is now a shared understanding across the teaching staff around mathematics.

# Evaluation *Where to next?*

The Leadership Team have reviewed assessment processes over the last two terms.

- A tier system has been introduced to identify students who need I.E.P's and which students will be prioritised to be accelerated.
- A greater number of 'below' students need to be prioritised next year to make accelerated learning.
- The staff need to explore why Maori learners progress does not accelerate as fast as Pakeha students
- The tracking of priority learning can be improved by teams closely actioning plans and monitoring progress on a fortnightly basis.
- Teachers are relying too much on summative assessment tools to determine student progress with mathematics. Formative assessment practices need to be strengthened.



### Tātaritanga raraunga



Actions: What did we do?	Outcomes What happened?	Reasons for the variance  Why did it happen?	Evaluation Where to next?
<ul> <li>Writing:</li> <li>Students learning was accelerated through Deliberate Acts of Teaching (DAT): <ul> <li>Teachers identified teaching points and planned deliberate actions.</li> </ul> </li> <li>Spiral of Inquiry guided best practice: <ul> <li>Teachers applied the principles they learnt through the mathematics spiral of inquiry process to accelerate learners progress in writing.</li> </ul> </li> </ul>	<ul> <li>Group A (Maori Learners): Number of students in this group=5 <ul> <li>2 learners has made accelerated progress (More than one year's progress).</li> <li>2 learners are still below National Standards.</li> <li>1 learners progress has declined from below to well below.</li> <li>Overall progress for this group shows % (40%) learners made accelerated progress in writing.</li> </ul> </li> <li>Group B (Other Learners): Number of students in this group=10 <ul> <li>5 learners has made accelerated progress (More than one year's progress).</li> <li>4 learners are still below National Standards.</li> <li>1 learners progress has declined from below to well below.</li> <li>1 student has left.</li> <li>Overall progress for this group shows 5/10 (50%) learners made accelerated progress in writing.</li> </ul> </li> </ul>	The Leadership Team have strengthened the monitoring and reporting process for priority learners.  The Year 3 team were very focused on accelerating priority learners progress.  Targeted teacher actions were planned and actioned.  The Middle Team moderated writing.  Maori learners are still not accelerating as fast as pakeha learners. However, the Maori learners are also included in Group B.	The Leadership Team have reviewed assessment processes over the last two terms.  Pakeha and Maori progress will be compared to consider why there is disparity between the two ethnic groups.  A greater number of 'below' students need to be prioritised next year to make accelerated progress.  The Leadership Team have also begun reviewing literacy assessment processes in Year 1-2. This has come about after the BoT reviewed the Charter and prioritised student learning in Years 1-3.  Stratford Primary School is also part of the Central Taranaki CoL. We will be reviewing data systems with an external provider. Stratford Primary school has also put in a professional development application for ALL: Year 1. Writing will be a focus in 2017.





#### Planning for next year:

(Aim 1) To embed the 'Spiral of Inquiry' process through Mathematics (ALIM Year 2), which raises mathematics achievement for students.

- Professional Development: 200h planned hours for developing cultural awareness for Maori students and to continue to embed the spiral of inquiry process as the Mathematics Road Map is updated.
- Evidence:
  - Individual teachers will show evidence of their learning through their sites or blogs. They will follow the 'Spiral of Inquiry' process that will be linked to the practicing teacher criteria.
  - Students Year 5-8 Focus Group (Interviewed/ observations): Do they know their mathematics goals and signs of success. Are students developing a problem solving approach to learning mathematics (Reasoning, applying what we know, problem solving in real and meaningful contexts, including cultural perspectives). Do students have a positive discourse towards mathematics learning where they can celebrate their cultural diversity through the way they learn mathematics.
  - Teams will show evidence of how they use formative assessment practices to provide teachers with valid and reliable evidence to inform teaching, tracking and monitoring of learners progress. Review progress of <u>Maori boys</u> learning in mathematics using the tier system. For example, what changes did teachers make that resulted in student progress (Team tracking boards, reflect/review evident in their blog/site).

(Aim 2) To evaluate the impact of teaching, learning and assessment in the first two years of a child's schooling at SPS, with the aim of raising achievement.

- Stratford Primary School will focus on writing in 2018. To build towards this professional development the Leadership Team will begin an evaluation of assessment processes in Years 1-2 using the ERO Evaluation process.
- Evidence:
  - Formative assessment informs teaching and learning, which raises Maori students reading and writing achievement (G2:3)
  - The Junior Assessment process informs decisions around accelerated learning programmes so disparity is reduced between ethnic groups (G3:5).