



ANALYSIS of VARIANCE 2022

The expectation of the Ministry of Education is that schools measure pupil attainment against Expected Standards (National Curriculum Levels). That information is provided here in both a written and a tabular form.

Foreword

The data presented in this analysis of variance is based on teacher overall judgments (OTJ's) against the New Zealand Curriculum expectations for the 2022 school year. It should be noted however that this year continued subject to many disruptions. Covid-19, much higher than usual absenteeism and school staffing / wellbeing disruptions that are all difficult to quantify against usual patterns of achievement.

Our school staff has however continued to invest considerable time into PLD and moderating our teacher judgements. This has been both within our own staff and with external facilitation (particularly Writing) to ensure they are as accurate as possible. In developing our OTJ's at Ōtāika, we currently rely on multiple sources of data to ensure the greatest accuracy possible. We are confident that with school wide consistency of teacher understanding, external moderation and self review our professional judgements will continue to provide accurate assessments of student learning.

What is the analysis of variance?

In the plans and targets set out in our charter, the Board describes the school's priority learning areas and our expectations for improved student outcomes. The core business of the school is to raise student achievement, but the Board can also potentially set related objectives about such things as attendance or harassment etc. The Board could also potentially identify other priorities, objectives and targets relating to staff and Board capacity, finances, and property as detailed in our operational plan. At Ōtāika we have focused particularly on Mathematics, Reading and Writing for our analysis.

In the annual report the Board presents, amongst other documents, an 'analysis of variance' which describes for the community how the school has addressed the annual learning priorities and details how successful the approaches have been. The variance report describes the outcomes of initiatives that prioritise the way the school resources are used. In order to be able to analyse progress towards school achievement targets, the school has collected data and evidence on student progress and outcomes.

A close look at this data is part of our teaching inquiry cycle to identify changes to our programmes in order to improve these outcomes .

Our analysis of variance is the starting point for self-review of student learning.

The information in the 2022 Ōtāika Valley School Analysis of Variance is presented below.

1. Writing
2. Reading
3. Mathematics

Cultural Competency

During 2022 Ōtāika Valley school continued its Kahui Kko 2 partnership within the cultural competency space. This included the review and implementation of daily timatanga and across-school te reo integration.

Ōtāika Valley has been audited and assessed at Level 4B Maori language funding.

Progress Comment

Special needs:

Ōtāika Valley School, as at 'end of year' 2022, had the following students with identified barriers to learning. This should be considered in the context of student population, achievement and progress. All of these students' results have been included in the below narrative and school wide data.

GSE and special education needs students

The allocation of the LSC resource and targeted staffing has seen a significant increase in our capacity to identify and provide additional support programmes for students with identified needs.

In 2022 Ōtāika Valley School had 59 students who received special needs learning support. This represents 45.38 % of our 2022 roll.

The below table outlines the students at Ōtāika Valley who have been identified or diagnosed, and who are receiving additional learning support. This table outlines by gender and ethnicity

Table 1: Year breakdown of interventions and support:

Interventions	NZ Pakeha	Maori	Other
<u>Orrs /GSE funded</u>			
male	1		
High Health Needs			
Male		1	

In-class Support funding			
Female	5	1	
Male	5	6	3
Brick Club - Male	1	2	
LLI			
Female		1	
Male		1	
Social Skills			
Female	2	3	
Male	2	2	3
Auditory Group			
Female	2	1	
Male	1	1	
Visual Group			
Female	3	1	1
Male		1	
RTiIT			
Female	1		
Reading Recovery			
Male	4		
Female	4		
	31	21	7

59 Students received interventions or targetted support

Male 34 students - 58% Female 25 students - 42%. This represents a 16% gender disparity in our below students.

21 students were Maori - This represents 35.6% of our below students.

Reading Recovery

In 2022 our Reading Recovery intervention programme ran for 11 students.

All students	
Male	6
Female	5
Maori	5
non Maori	6
Maori Male	4
Maori Female	1
European Male	2
European Female	4

Attendance 2022

Attendance has played and continues to play a significant role in student achievement variance throughout 2021 and 2022 at Ōtāika Valley.

All Years have seen significant attendance concerns. The late return of students post lockdowns, combined with regular unjustified absences illustrated patterns of parental concern and underlying anxiety of the health and safety context facing whanau and caregivers. These patterns were replicated in senior years year 4 -6

The below table outlines attendance % for year 1-6 year groups, including ethnicity.

Average attendance in term 1 of 2023 (81.0%) was higher than in term 4 of 2022 (77.4%). This equates on average to 11 days away from school in 1 term

The Board recognises that attendance at Ōtāika Valley School has been an area of significant concern, and an area for focus in 2023. This is illustrated again in the very low 11.0% of students attending regularly (90-100%) in term 4 of 2022.

The below data indicates the low attendance and is a significant contributor to low student attainment.

By Ethnicity

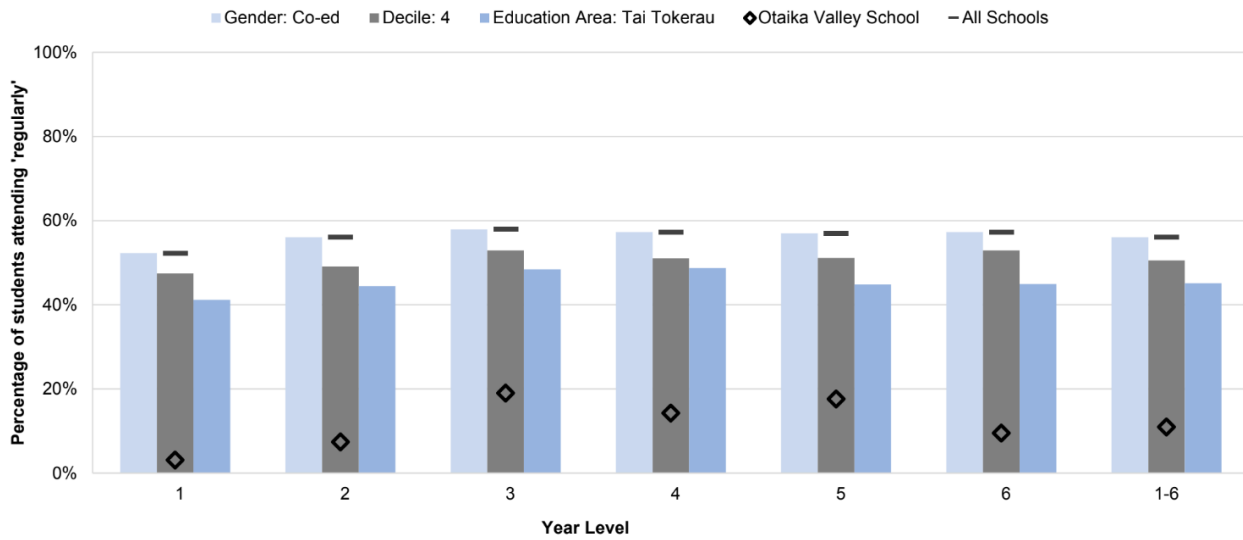
	% of students attending (% of days)			
	90-100	80-90	70-80	0-70
Maori				
Term 4 2022	3.8	26.4	43.4	26.4

	% of students attending (% of days)			
	90-100	80-90	70-80	0-70
Pakeha				
Term 4 2022	12.8	37.6	36.0	13.6

Patterns above include in some instances more than 10 weeks of missed schooling in foundational early years across 2022.

'Regular' attendance, by Year level (Term 4, 2022)

Comparing the proportion of students with 'regular' attendance at your school with national and like-school benchmarks.



The percentage of Year 3 students (your highest-attending group) attending regularly was lower in your school than in all comparison groups.

• Note: Comparison by school type is not provided in this chart because school types are typically related to Year levels of students attending.

Ōtāika Valley School Achievement Targets

Focus: Literacy - Writing

Analysis of Variance

Strategic Aim:

To raise student achievement in Writing and accelerate progress for students Below to meet curriculum expectation.

Annual Aim for 2022:

Curriculum Development - Writing - To have 75% of students operating at or above the 'Expected Curriculum Level' in writing.

Baseline

At the end of 2021 writing achievement data showed that **65.6%** of all students were achieving *at* or *above* the expected curriculum standards.

2021	%
Year 1	n/a
Year 2	84%
Year 3	57%
Year 4	48%
Year 5	73%
Year 6	75%

Target 2022:

To raise the level of student achievement in writing:

- **By the end of 2022, 75% of all year groups will achieve *at* or *above* the Expected Curriculum Level.**

Actions:

- Whole school facilitated PLD - . Writer’s Toolbox.
- PLD changes in class, team and school-wide practices
- Expectations from the leadership team required clear, explicit differentiation in planning for writing.
- Writing expectations for year groups created by WIST and shared with staff
- Literacy google site created
- Jnr teachers used modelling books to share the process of learning and clarify student understanding.
- Teachers formative feedback to students and discussions around success criteria to maintain progress.
- Student discourse and voice encouraged in all aspects of the writing process.
- Moderated Assessment and analysis of writing through e-asttle writing matrices.
- Real time reporting for writing - sample of writing shared with parents with an overview of expectations for each year group. .
- Initiated assessment e-asttle with WTE impact
- Student’s learning to identify and use evidence to assess writing.
- Use of quick writes to help children self assess their own writing
- Maintaining on-going, critical conversations between teachers and between teachers and leaders
- Student engagement in writing surveyed - beginning and end of year.

Outcomes: End of year data from 2022 shows our annual target was not met with **55.6%** of all students achieving at or above the Expected Levels in Writing. This represents a 19.4% deficit on our target of 75% and a 10% drop on 2021.

Writing				
	At or Above			Cohort % Change
Year		2021	2022	+/-
Year 1		%	26%	n/a
Year 2		84%	33%	n/a
Year 3		57%	62%	-18
Year 4		48%	43%	-14
Year 5		73%	75%	+27
Year 6		75%	95%	+23

Reasons for the Variance:

- Aspirational target.
- Decrease in performance. 2nd covid disrupted year.
- High absenteeism.
- Increased anxiety, decreased emotional stability.
- Covid reduced parental 'face to face' contact with staff - early years
- Students are less able to transfer writing capabilities across the curriculum.
- Covid - physical out of class teaching 10 weeks
- School cohorts
 - Year 1 -3 have significant lower academic cohorts - the further up the school the wider the academic gap becomes
 - low oracy and academic new entrant enrolments
- Consistency in moderating expected standards
- Consolidated understanding of writing assessment tools
- Engagement with Write That Essay
- Disrupted leadership due to sabbatical and key leadership personnel leaving.
- Change in staffing across the school - ie moving levels, new junior leader etc.
- Impact of classes/reading recovery candidates affected by mandate (ie, teachers leaving to be replaced by day-today relievers - not one person. Reading recovery person appointed 2022 - so the last cohort of Reading Recovery students in 2021 were unable to get onto Reading Recovery).

Evaluation and plans for End of 2022:

Areas of strength

- Year 6 - 95% at or Above
 - 45% above
- Year 3 - 72.2% At
- Year 5 - 68.75% At

Areas for improvement

We note a 10 % decrease across the board from 2021

- All students who are below expectation - 47%
- Year 1 - 73.91% below
- Year 2 - 44% well below
- Year 3 - 22% Below (5 students) 16% well below (3 students)
- Year 4 - 28.5% below 28.5% well below
- Students Below/well below 64 students across all years
- 38 students Below - 27.9%
- 26 Students well Below 19.12%

Maori

- o All Maori students Below: 55.31%% -26 students
- Gender discrepancy Girls 40.82 below % v Boys 56.16% below

Whole school Targets/Actions for Writing 2023

- Continue with 2022 the implementation of whole school/Col writing PLD - 'Writer's Toolbox'.
- Purposeful integration of writing across the curriculum.
- Retain WIST and lead team "Writer's Toolbox" in-school teacher
 - o Share across COL expertise in writing (WTE)
- In school remedial programmes implemented.
- Continue building leadership capability through leadership and staff pedagogy PLD in order to strengthen internal capacity for sustained professional learning – leaders planning and co-leading
- Maintain writing sub focus at staff meetings. Planned and systematic inclusion.
- Review and moderate use of e-asttle writing tool to enable better tracking and monitor student achievement and progress. Continue with this as a writing assessment.
- Review 'Writer's Toolbox' assessment format, look to use this as well as e-asttle in 2023
- Investigate Implementation of school structured literacy initiative - Ideal model Term 3-4
- Target students identified for intervention at year 1-3 - LSC support
- Induct new staff into WTB
- Early remedial meetings with parents of students of concern
- Build teacher knowledge of new 'Writers Scorecard' writing rubrics, process and progressions.
- Review; tool, marking, moderation of writing (term 4)
- T/aide focus support for target students yrs 1-6
- Leadership exploring Ideal Literacy - introduce to staff term 4

Strategic Aim:

To raise student achievement in Reading and accelerate progress for students Below to meet curriculum expectation

Annual Aim for 2021:

To have **80%** of all Students operating at or above the Expected Curriculum Level in Reading.

Baseline**Data 2021:**

At the end of 2021 Reading achievement data showed **75.2** of all students were achieving *at or above* expected curriculum levels.

2021	%
Year 1	n/a
Year 2	88%
Year 3	57%
Year 4	86%
Year 5	89%
Year 6	95%

Target 2022 :

To maintain/raise the level of student achievement in reading:

- By the end of 2022, 80% of all year groups will achieve *at or above* the expected Curriculum Levels

Actions:

- All remedial reading students identified
- BSLA remedial training for 2 teachers
- In class and withdrawal reading support for all 'well below' students
- Staffing of reading recovery for 6 year olds achieving 'well below'
- Formative practice: Teachers feedback to students and discussions around success criteria to maintain progress
- Moderated assessment and analysis of reading through Probe, PAT, Running Records and sight word / alphabet testing
- In-class target groups established

- An adaption to the Yolanda Soryl approach to Phonics for ICS and some extra target students
 - Include daily explicit teaching of these phonic skills in the junior classroom, with individual or small group lessons for older children who are still at the earlier levels of literacy acquisition.
 - Started working towards handwriting, brain gym and memory activities
 - Literacy group run by Teacher Aide.
- PMP put in place to assist students
 - Develop children's physical motor skills that provide the foundations necessary for success in their early school years.
 - Run by Teacher Aide.
- Linking, making connections of WTB (writing) to Reading
- Real time reporting for reading communicated to parents twice a year - Photo of child with current reading level and information about what they are working on at current level and where to next
- Extra support put in place for target students by Learning Support Coordinator
 - Tier 1: Able to cater for the children's needs within the classroom setting. These children may require a Notice & Adapt
 - Tier 2: These children need a more targeted approach through intervention programmes, teacher aide support, referrals for SLT, RTLB including outside agencies. These children require Notice & Adapts
 - Tier 3: These children require a more intensive approach involving IEPs, multiple outside agencies, IWS, ORS
- Weekly Buddy Reading sessions - Tuakana Teina
- Reading Logs for homework to track home learning
- Visual Spelling Programme taught Year 4-6 partnered with relevant homework
- Regular communication with whānau regarding child's learning

Outcomes: End of year data from 2022 shows the school did not meet our target with **66.6%** of all students achieving At or Above the Expected Levels. This represents a **13.4%** deficit on the set target and an **8.8%** drop on 2021. The below table illustrates cohort achievement by school year.

Reading				
	At or Above			Cohort % Change
Year		2021	2022	+/-
1		na	29%	n/a
2		88%	52%	n/a
3		57%	71%	-17
4		86%	64%	+7
5		89%	94%	+8
6		95%	90%	+1

Reasons for the Variance:

- Aspirational target.
- Decrease in performance - 2nd covid disrupted year.
- Impact of high absenteeism.
- Academic shift from level 2 to level 3.
- Increased anxiety / decreased emotional stability.
- Parental engagement over covid.
- No whole school 'Reading' focus.
- Consistency and effectiveness of reading teaching across the school has ensured stable and generally improving across years growth in same cohorts.
- Continuing pattern of 'low ability' entry cohorts and early literacy issues.
- Our reading interventions do not operate in year 0-1.
- Social paradigm: Pre-school entry and reduced oracy in new entrants.
- Change of teachers in Year 0-1.
- Lack of reading at home for some children.
- COVID disruptions - for seniors teaching with masks etc.

Evaluation and plans for End of 2022:

Areas of Strength

- Yr 6 - 90%- at /Above
 - 85% Above
- Yr 5-94% at /Above
 - 68% Above
- Effective, fun and engaging teaching strategies.
- Challenging reading materials (both in book form and online).

- Supportive learning environments.
- Strong rapport between akonga, whānau and kura.
- Involvement from most parents and community.
- Outstanding support from Teacher Aides, LSC, and Librarian.
- Diverse and welcoming school library atmosphere.
- Library open at both break times.
- Open door policy - whānau welcome in at any time.
- Regular communication via Seesaw.
- Collaborative and reflective teachers.
- Students supporting and encouraging other students.
-

Maori achievement

- Positive and safe learning environment.
- Opportunity to learn more, develop, and celebrate language and culture.
- Teachers are prepared and knowledgeable about curriculum.
- Whānau are involved in supporting their child's learning.

Areas for improvement

- All students Below expectation - 38.89% (42 students)
- Achievement pattern for students shows disparity for gender ..., Below or Well Below, Male 42.74 % (31 Students) v Female 30 % (15 Students)
- Year 1 - 70.83% below
- Year 2 - 48.15% below
- Year 4 - 35.71% below

Maori achievement

- Maori students – 40.43% Below (19 students)
- Gender - Girls 70% At/Above Boys 50% At/Above

Whole school Targets/Actions for Reading in 2023

- Increase teacher capacity through additional Curriculum Support staffing to support and extend below and gifted learners
- Accelerating Year 1 and 2 'below' and 'well below' as outlined
- Increasing support across the school for literacy-reading oral lang focus (teacher aide resourcing)
- Change of pedagogy to match Play Based learning to increase oracy
- Focus on shifting achievement for all students 'Below' to 'At'
- Develop curriculum support staffing for both Junior and Senior support
- Ensure funding for interventions at year 1-4
- Continue to develop whole staff "in class" capacity to accelerate student progress with a focus on identified target students (via use of teacher

- inquiry and practice analysis as directed)
- LSC/Senco assist class teachers to build capacity and deliver support programmes
 - Teachers continue to 'change practice' to allow for greater student engagement in learning - knowing where their learning is and where it needs to go
 - Change in teaching practice linked to improved teacher effectiveness – building learning-focused relationships; clarity of learning; assessment literacy; promoting further learning; active reflection; clarity about next learning steps, deliberate acts of teaching (Absolum, 2006)
 - Differentiated reading/classroom programmes a part of general classroom literacy practice
 - Across subject application of collaborative inquiry into effectiveness of practice and learning programmes involving careful monitoring of student achievement progress in focus reading groups
 - Teachers in Years 1-4 will use ongoing analysis of observational data to inform teaching practice related to specific student learning needs in decoding and reading behaviour
 - Teachers in Years 5-6 will provide planned opportunities for scaffolded support so that all students can access and use a variety of texts appropriate to their curriculum level
 - Teachers continue to base key instructional reading through using the 'guided reading' approach
 - Keep the teacher inquiry focus on individuals that need scaffolding and support (target group)
 - Continue to use Literacy Online and MoE resources to inform content and pedagogical knowledge related to literacy
 - Monitor school-wide reading teaching practices across the curriculum (teacher observations) with a continued focus on knowledge teaching

New Actions 2023

- Increased parental engagement with school post covid
- Early preventative meetings with parents of students of concern
- Scope Guided play learning in year 1 - oracy building
- Employ reading recovery teacher as applicable 2023
- Additional support for year 1-3 years cohorts 2023 - t/aide employment
- Leadership exploring Ideal Literacy - introduce to staff term 4

Strategic Aim:

To raise student achievement in Mathematics and accelerate progress for students Below to meet curriculum expectation

Annual Aim for 2022:

Curriculum improvement - To have 75% of students operating At or Above the 'Expected Curriculum Level' in Mathematics

Baseline Data 2021:

At the end of 2021 Maths achievement data showed **59.2%** of all students were achieving *at or above* National Standards.

2021	%
Year 1	n/a
Year 2	67%
Year 3	50%
Year 4	67%
Year 5	77%
Year 6	63%

Targets 2022:

To maintain or raise the level of student achievement in Mathematics:

- By the end of 2022, 75% of all year groups will achieve *at or above* expected curriculum levels

Actions:

- Lead teachers for maths identified.
- All teachers will complete data analysis to have a clear understanding of the needs of their class
- All 'at risk' math students identified
- Assessment and analysis of math data Gloss, Numpa, JAM, PAT, basic facts.
- Target students identified and supported in 'In-class' focus groups
- In class and withdrawal math support for all Well Below students
- In class target groups – Well Below / Below for all classes
- Teachers review numeracy lesson and pedagogy
- Real time reporting for maths - assessment data formulated chart followed by stages and steps for expected year level
- Lead teachers of maths attended PLD supplied by Cognition
- Lead teachers of maths shared ideas and feedback from PLD to staff - staff expected to try new ideas and games to increase student achievement and staff understanding of best practice.
- Staff meetings had a time for best practice to be shared.
- Use of I-UGO planning tool explored

Outcomes

End of year data from 2022 shows our target was not met at **63.8 %** of students 'At or Above' the expected curriculum levels. This represents a **11.2%** deficit on our school target in 2022, but a **4.2%** achievement increase from 2021. The below table illustrates cohort achievement by school year.

Maths				
Year	At or Above			Cohort % Change
		2021	2022	+/-
1		?%	63%	n/a
2		67%	44%	n/a
3		50%	76%	+10
4		67%	64%	+14
5		77%	69%	+2
6		63%	67%	-10

Reasons for the Variance:

- Aspirational target.
- Decrease in performance. 2nd covid disrupted year.
- High absenteeism.
- Academic shift from level 2 to level 3
- Increased anxiety, decreased emotional stability.
- Decreased parental engagement
- Literacy focus last 3 years
- Low academic new enrollments
- High numbers of 'special needs' in some cohorts
- Alim not run due to covid interruptions and staffing
- Senior school staffing changes
- End of 2021 - mandate caused unsettled classes affecting the students wellbeing and academic success.
- New staff inducted
- Maths was a minor focus - main focus was WTB and BSLA (Juniors)
- Lack of PD for whole staff
- COVID disruptions - for seniors teaching with masks etc.
- Unclear direction due to changing curriculum - leadership not prepared to make significant change when curriculum could all change again

Evaluation and plans for 2022:

Areas of Strength

- 63% achieving At/Above expectation for whole school
 - Year 3 – 80% At or Above
 - Year 5 – 31% Above
 - Year 6 – 47 % Above
- Only 10% - 11 students Well Below expectation
- Gender - little gender discrepancy - Girls 37% below. Boys 31% below

Areas for improvement

- All below /well below students
- 14% (7 students) students 'Well Below' level expectation
- 51 students Below
 - Year 1 - 37.5 % Below, 9 students
 - Year 2 - 55.6 % Below, 15 students
 - Year 4 - 35.71 % Below, 10 students
- Maori 51.06 % Below
 - 23.4% Well below (7 students)

Gender discrepancy -

Plans

- Current Year 2 - 6 year groups of target students – lift progress and achievement to achieve expected levels by end of 2023
- Target students will be identified for intervention at year 2,3, 4,
- Accelerated progress for groups of Target students in Year 2/3/4
- Review inclusive practice for Maori students - PLD
- Continue to maintain decrease in disparity between boys and girls- address issues student engagement
- Establish 'Well Below/Below' student focus groups – all teachers
- Focus on new Maths pedagogy TLF

Whole school Targets/Actions for Maths in 2023

- Continue to develop leadership capability to lead change (focus

on use of practice analysis with leaders and teachers in Term 2-4 in order to raise student achievement)

- Below student target focus to narrow the achievement gap.
- Increase teacher capacity through Curriculum Support staffing to support and extend below and gifted learners
- Continued focus on changes in school-wide practice for accelerating remedial learners - (formative practice)
- Focus on shifting achievement for students Below expected – to move to ‘At’ category
- 2023 -focus home learning programme to reflect basic facts ‘knowledge focus
- Promote ‘Maths in school’ communications throughout year.
- Early preventative meetings with parents of students of concern

New Actions 2023

- Whole school PLD for Math 2023. External facilitation of new math pedagogy and programme. TLF
- Maths is a key focus area
- WIST teacher appointed
- Math lead team and HOD appointed
- Teacher inquiries to focus on Maths in 2023
- Fund and resource strategic initiative
- Based on obs term 4 2023, instigate ‘teacher inquiry’ for target groups to promote accelerated shift in student learning.
- Math ‘teacher inquiry’ appraisal as formal growth cycle.
- Hold parental/whanau PIE evening to outline and inform community of new maths.
- Increased attendance focus
- Staff meetings/syndicate meetings held regularly to promote PLD, discuss best practice and keep focus.

Successes

At Ōtāika Valley School we are able to celebrate many successes in our children’s learning. Many of our children achieve well academically, socially and emotionally . We continue to receive favourable feedback from the schools attended after leaving Ōtāika Valley, where our students continue to perform academically to high standards and are often chosen as leaders in their next schools.

Summary Statement

The Board of Trustees notes its on-going concern for new entrant cohorts in the areas of literacy (particularly oracy), the impact of covid and student absences over 2021-2. These are signalled as on-going areas of focus for 2023 and beyond. We note also our inclusion in the Whangarei kahui Ako - group 2 will see across COL collaborative strategic foci of Well-Being, Cultural competencies and Literacy (writing) continue into 2023.

In closing, the Board is aware of a downward trend in the 2021 and 2022 data, particularly in foundational years 1-3 and in numeracy. The Board is cognisant that the on-going impact of covid on attendance, academic, social and emotional stability remain unknown quotients and difficult to measure. These considerations will be at the forefront of deliberations and planning as we head into 2023 and beyond.