

# Analysis of Variance 2022

## Year 7&8

Target 1: **Mathematics:** To improve the Y8 European Boys by 2 sublevels in Maths by the end of 2022. Based on data collected in 2021, this was a group of students who were low achievers AND failed to shift in their learning by 1 or more sublevels.

### Deliberate Strategies to meet target:

- Regular feedback to students about next steps in learning (based on asTTle testing and in class work)
- Creation of maths based groupings in Year 7&8 classes
- Work with external facilitator (Bronwyn Weston) on asTTle strategies, data and observations
- Deliberate acts of teaching based around Number strand to strengthen learning in other strands
- Use of real world examples to engage students in learning and for them to see purpose in the use of mathematics

### Who is responsible?

JCO and Year 7&8 teachers

### Shift from:

- Students who are unengaged and well below the expected level for mathematics
- Students who have not improved in their curriculum level over a year
- Teachers who have little strategies or knowledge of low level learners in Mathematics
- Whole class teaching of a mathematical concept that misses the mark for low level students

### Shift to:

- Students who are aware of their learning needs and next steps, in particular for mathematics
- Students to improve their curriculum level in mathematics and to show shift over one year
- Teachers who have a range of different strategies for low level learning and how to shift the students based on data
- Group teaching that is specific for the identified students that targets specific learning to raise mathematics achievement

### Evidence of Improvement:

Students will have moved 2 sublevels over 1 learning year (based on EOY OTJ 2021 to 2022).

### Reflections:

At the end of the year, significant features of aggregated data for Year 8 were:

- Significant number of European and Maori Males below expected curriculum level, and no curriculum shift achieved over the year.
- Pleasing to see more students above expected curriculum level

All Year 7 & 8 classes, utilise grouping techniques, based on the needs of their students. Groupings are created to promote learning - focussing on gaps and weaknesses, but consideration is also given to creating groups to prevent behavioural issues - for example, social groups may be split to benefit learning.

### Use of E-Asstle tests:

- Pre and post E-Asstle tests are taken for each strand
- A longitudinal test is taken at mid-year and end of year.
- Test results are shared with students
- Students are less anxious about tests
- Students are more aware of their learning needs and gaps - rather than simply "doing a test"

### Some teachers:

- base the groups around pre E-Asstle results, using the identified gaps and weaknesses
- Spent more time building up Number Knowledge - particularly around place value, fractions & decimals
- work with their buddy class, with all students working according to their identified needs, these groups change according to need
- Work together to plan the maths program

- Utilise a Maths reflection book and / or Maths Glossary. Vocabulary and modelling charts are also used.
- Use a buddy system - for example, a high and low student may be buddied for financial literacy work

Other teachers run their own Maths program independently.

The Dragon Maths books were purchased for ,Te Arawa waka this year. Positive feedback has been received by both students and teachers.

A digital Maths program, “Maths Buddy” has been used by some students. The identification of students, along with the running of this program is completely independent from the classroom program, by the Learning Support Coordinator. Although it appears the majority of the students on the Maths Buddy program do so at home, it is difficult to ascertain whether or not the program is meeting students’ needs.

**Target 2: Te Reo Māori and Local Curriculum:** To achieve Level 4a (between 12%-30%) teaching in Māori, within Year 7 and 8.

**Deliberate Strategies to meet target:**

- Year 7 and 8 Teachers to undertake Professional Development in Te Reo Māori through Te Ahu o Te Reo Māori Programme.
- Regular and structured Te Reo Māori lessons taken by the Homeroom Teacher
- Development of set modules with key resources to support learning programme, with an emphasis on practical opportunities ( field trips , camps etc).
- Use of karakia, pepeha and waiata daily and strengthening tikanga practices

**Who is responsible?**

JCO and Year 7&8 Teachers

**Shift from:**

- Students who are disengaged or lack historical knowledge of their place and identity failing to engage in learning
- Teachers who lack confidence or knowledge in using Te Reo Māori and local curriculum contexts within the classroom.

**Shift to:**

- Students feeling excited and empowered by understanding their identity and place through local curriculum and language
- Students regularly using both English and Te Reo in their learning and everyday life as a norm

**Evidence of Improvement:**

Normalisation of the use of Te Reo Māori in the classroom and school life

Increased confidence in teacher delivery and knowledge

Completion of Te Ahu o Te Reo Māori Programme (teachers) to show improvement in Te Reo Māori

**REFLECTION** What have we done in 2022

- Timetabling enabled three specialist Maori teachers to support students and some teachers to deliver the Social Studies program within some Year 7 & 8 Homeroom classes. Time within classes varied. Shared planning, and professional development was very limited, due to time and inability to meet at the same time.
- In Term 2, the Tainui waka story was taught collaboratively, with each class focussing on a specific section. The Tainui story started in Hawaiiki, with the final section being the establishment of Hauraki iwi. Each class presented their part of the story.
- The School Kit resource, “Something happened here” was used by Homeroom teachers in Term 3. The resource introduced teachers to the Aotearoa NZ History curriculum, and its implementation was based on Understand, Know and Do concepts.
- Every Year 7 & 8 student completed one rotation (7 weeks) of Te Ao Maori with a specialist Maori teacher. The focus included Te Reo and Tikanga.
- Te Reo was scheduled into the Homeroom timetable in Terms 3 and 4.
- Most Year 7 & 8 Homeroom teachers completed the Te Rekamauroa ki Tainui Professional Development course in Term 2.
- Karakia and waiata are used in some Ako classes at the beginning of the day, and both waka end their day together with karakia and waiata.

### Successes

- Local based curriculum program is developing more depth with collaboration and expertise. Teachers supportive of the bi-annual focus from one area to another.
- Teachers are becoming more comfortable teaching the content, as their own knowledge and familiarity of the stories and area occur.
- Written resources useful to aid knowledge and planning
- Classes teaching other classes helped them become experts/deep understanding but only of particular things
- Te Rekamauroa ki Tainui Professional Development was excellent for most- provided valuable resources, experiences and opportunities to develop Te Reo and Tikanga Maori at teachers own level. Practical applications of material.

### Challenges

- Not all homerooms had the same advantages of access to specialist Maori teachers
- Availability and understanding of resources. Need for continual updating and collation.
- Te Rekamauroa ki Tainui Professional Development was a major time commitment to make.

### Next steps

- More Professional Development with new curriculum for social studies
  - use of Understand, Know, Do framework
  - unpacking key knowledge, key questions and possible learning experiences for Year 7 & 8
- \* Identify the critical Haurakitanga knowledge for everyone to teach within each unit - provide staff workshops to enable understanding
- \* Collaboration and understanding prior knowledge coming from primary schools and building on this.
- \* Field trips and use of guest speakers eg: Local historians to share information with us
- Te Reo
  - In order to consolidate and normalise the use of Te Reo, short regular Te reo sessions need to be incorporated into team meetings. Team use of set phrases / instructions to be focussed on and normalised within waka / classes.
  - continuing access and time for external Te Reo professional development
  - Continued timetabled classroom Te Reo lessons.

The specific target to achieve Level 4 (between 12% and 30%) teaching in Māori, within Year 7 & 8 classes has not been achieved this year. However, use of Te Reo has increased within some Homeroom classes.

## Year 9&10

**Target 1: To improve the engagement of students in Y9 and Y10:** Students used to experience year 9 in a traditional silo format of 5 CORE subjects and 2 ROTATIONS.

The new format of Year 9 is in experience, project based learning with reduced teacher interactions (2/3 CORE teachers). This is to foster a more homeroom environment with less teacher transitions. This should also ensure that cross curricular linkages are made through local curriculum contexts.

Year 10 technology team are moving from skills specific areas (food, textiles, wood, digital, metal) to a more integrated technology subject where students are encouraged to problem solve using technology processes rather than restricted to one domain. This will build knowledge and allow students to look at big picture thinking. Students will also engage with all technology staff and more students building teamwork and engagement

### Deliberate Strategies to meet target:

- Homeroom style teaching classes to encourage cross curricular learning
- Collaborative local curriculum
- More experience based learning especially outside of the classroom (learning in the real world and applying learned skills and knowledge outside of the classroom)

### Who is responsible?

Year 9 teachers  
All teachers of Year 9&10  
Year 9 team/ATE

<ul style="list-style-type: none"><li>● Collaborative teaching and learning of technology to encourage problem solving and teamwork</li></ul>	Year 10 Technology teachers
<b>Shift from:</b> <ul style="list-style-type: none"><li>● Students who are fearful of the move from Year 7&amp;8 homeroom</li><li>● Students who learn solely from in class activities</li><li>● Student are reliant on teacher to guide their learning and so disengage in authentic thinking of their own problem solving methods</li></ul>	<b>Shift to:</b> <ul style="list-style-type: none"><li>● Students who have a safe learning environment with less teachers who are strongly invested in the students learning</li><li>● Students who can apply the learning in class to solve problems and then go out to test their learning.</li><li>● Students are involved in their learning and are happy to take risks, try new things, find out more about their learning</li></ul>
<b>Evidence of Improvement:</b> <ul style="list-style-type: none"><li>● Year level engagement survey (raw baseline data taken from 2021 Science survey (Royal Society survey (Science Teaching Leadership Programme)). 2022 will survey based on engagement in science and links to other curriculum areas.</li><li>● Survey results suggest students are able to make cross-curricular connections through the use of themes and EOTC experiences.</li><li>● Anecdotal evidence from 2022 Y9 students and parents that they enjoyed the year and that they got to experience lots outside of the classroom.</li><li>● Anecdotal evidence from 2022 Y9 students wanting to remain in the same class with the same teachers for 2023.</li><li>● 68% of Y9 students have shifted 1 or more sublevels across 2022 in Mathematics.</li><li>● 51% of Y9 students have shifted 1 or more sublevels across 2022 in Reading.</li><li>● 86% of Y9 students have shifted 1 or more sublevels across 2022 in Writing.</li><li>● Year 10 Technology have fostered a collaborative problem solving environment for students, however there was concern that students may have been missing key skills by choosing similar projects each time. 2023 programme modified for students to pick different contexts for each rotation to ensure that key skills are learned in preparation for Senior Years.</li></ul>	

<b>Target 2: To increase the WIN, RIN and MIN students from 4b to 4a:</b> These students are <i>almost</i> ready for success but are falling short of where their optimum learning should be. With a little bit of encouragement, support and structure they should reach a level that makes them prepared for literacy and numeracy corequisites (upcoming NCEA)		
<b>Deliberate Strategies to meet target:</b> <ul style="list-style-type: none"><li>• Use of school wide initiatives in reading, writing and numeracy to ensure consistency of practice in all classrooms</li><li>• Deliberate acts of teaching of reading and writing in all learning areas to encourage, support, provide constructive feedback on reading and writing</li><li>• Year long tracking of achievement and shifts in learning (asTTle testing, mid and end of year OTJ)</li></ul>		<b>Who is responsible?</b> SLT/WSL (ACK as Literacy/Numeracy lead) All Year 9&10 teachers  English/Maths/SLT
<b>Shift from:</b> <ul style="list-style-type: none"><li>• Students who are sitting just below the expected level and so not tracking to meet the requirements for NCEA (literacy/Numeracy corequisite)</li></ul>	<b>Shift to:</b> <ul style="list-style-type: none"><li>• Students who are at the expected level of reading, writing or numeracy AND have the confidence and student agency to be able to take on functional literacy and numeracy in the real world and attempt the NCEA corequisite in the same year that they attempt NCEA</li></ul>	
<b>Evidence of Improvement:</b> <ul style="list-style-type: none"><li>• Out of the identified MIN students 13/25 shifted to 4a or above.</li><li>• Out of the identified RIN students 8/14 shifted to 4a or above.</li><li>• Out of the identified WIN students 8/18 shifted to 4a or above.</li><li>• There was disparity between EOY OTJ's from 2021 and 2022, this is largely due to Year 9 Writing and Reading OTJ being judged across 2 subject areas (English and Social Studies), whereas in Year 10 the Writing and Reading OTJ only judged in 1 subject area (English).</li></ul>		

- This has led to the implementation of specific targeted teaching of literacy and numeracy at Year 9 and Year 10 for 2023.
- Year 10 students also had the opportunity to sit the Literacy and Numeracy Co-requisite Common Assessment Tasks.
- Of those that took part in the assessment, 60% achieved the reading CAA, 36% achieved the writing CAA, and

## Year 11-13 (NCEA)

**Target 1: To improve the success of students in Year 11:** That of the 100 students in Year 11, 90% of students will gain 80 credits by the end of 2022

**Deliberate Strategies to meet target:** Year 11 students have the biggest mountain to climb in terms of credits and these are often very slow to come in. Students become disheartened and frustrated about the lack of NCEA progress.

- Introduction of Year 11 Mini project to give students a credit boost of approximately 15 credits in the first week of school. STAR funding of Get group course for all Year 11 students plus 2 in school mini projects. Mini project repeated with new teaser courses at mid point of year should give a boost of credit but also an opportunity to experience more vocational pathways
- Ongoing tracking of learning throughout the year identifying students where intervention is needed
- Incorporation of local curriculum to all subject areas to allow students to learn about themselves and their area and experience learning that relates to them and their families

**Who is responsible?**

JHO (organisation of courses and students)

KMO - Urban Orienteering  
SFI - Hospitality Unit

JHO tracking

JHO mini project mid year (ITS and STAR funding)

All teachers of NCEA courses

**Shift from:**

- Negative mindset of students thinking that they are making little progress; for most they are on less than 10 credits at the end of Term 1 - they see that this a 'quarter of the year' gone and that they haven't made much progress. This often sets the students as feeling that they are failing.
- At the end of the year, we often complete a catch up. Staff (and students) sometimes perceive this as 'cheating'.

**Shift to:**

- Students start the year with a minimum of 15 credits. Any additional credits during Term 1 should get the students over 20 at the end of Term 1 making them feel like good progress is being made. This is a more positive approach for students and will hopefully give them the momentum to continue with learning
- We *should* be able to avoid the catchup at the end of the year which is high pressure for staff and isn't the best learning environment for students

**Evidence of Improvement:** JHO to continually track and release (and celebrate) NCEA results at the end of Term 1 and onwards. Regular reminders in 11ST will keep students on track and reminders to staff for one internal per term will ensure that there is a regular rollover of student credits.

Less students at the end of year catch up programmes held during study leave.

More students achieving NCEA Level 1 in a timely way

Undoubtedly the kickstart programme at the start of the year gave the students a great foot up in the start of their NCEA journey. It meant that students had an early intervention and did not need to have supplementary courses to bolster their number of credits throughout the year.

The overall pass rate of students in 2022, Year 11 was 91%.

However, this did not reflect the outstanding success that we achieved for students who actually stayed in school. (of the 8 students who did not achieve, 1 had a baby (she will return to the teen mum unit at school and get Level 2 eventually), 3 were non attenders (Northern Health School), 1 left school on 71 credits moving to Hamilton for employment, 1 had less than 30% attendance and the other genuinely didn't get enough credits (again largely due to extreme attendance issues). These are not excuses, rather an example of the awesome work we have done with the other students and proof that, should you stay at school and attend regularly then you will pass NCEA Level 1 with the support of staff at Waihi College.

**Target 2: Literacy and Numeracy.** That 100% of students in Year 11 will achieve Level 1 Literacy and Numeracy by the end of 2022

<b>Deliberate Strategies to meet target:</b> <ul style="list-style-type: none"> <li>Tracking of Literacy and Numeracy.</li> <li>Catch up sessions from mid year onwards in Super Tuesday. Following the 1st semester of Super Tuesday, students who have completed Literacy and Numeracy OR are tracking to complete Literacy and Numeracy will choose alternative experience based courses. Students who still have work to do on Literacy and Numeracy will stay in Super Tuesday course for a supported learning programme</li> </ul>	<b>Who is responsible?</b> JHO (tracking and monitoring) JHO and MWL (Literacy and Numeracy assistance)
<b>Shift from:</b> Literacy and Numeracy being a barrier to student success and a catch up at the end of the year (or the following year)	<b>Shift to:</b> Students getting support to successfully manage Literacy and Numeracy with intensive help from experts. This will ensure that students are actually functionally able, not just producing enough evidence to get over the line.
<p><b>Evidence of Improvement:</b> All students will have achieved Literacy and Numeracy by senior prize giving and the start of study leave.</p> <p>Part way through the year, students were offered the option of completing the pilot Literacy and Numeracy common Assessment Activity. This meant that some students achieved Numeracy via this route while also accumulating NCEA credit through the traditional Achievements/Unit standard courses.</p> <p>At the end of the year (start of traditional study leave) the only students who needed to remain behind to catch up were those who needed Numeracy. This wasn't a surprise as the students were a year group that had always struggled with Numeracy and had also been taught by an inexperienced teacher who had struggled with the content and the behaviour. A Numeracy catchup was completed by ACK and JHO with great effect (and effort) and all students who were still attending at the end of 2022 gained literacy and numeracy.</p> <p>Of the students who were attending by the end of the year, 100% of them gained both Literacy and Numeracy.</p>	

<b>Target 3: Year 12</b> - that 90% of students who complete a full year of Level 2 courses will achieved NCEA Level 2 AND be confident in their career/learning pathway for the future	
<b>Deliberate Strategies to meet target:</b> <ul style="list-style-type: none"> <li>Slow, in depth selection process of subjects</li> <li>Tracking of achievement throughout the year</li> <li>Use of Senior Hub to guide and support students to find a career/learning pathway that gives them focus for their study and success</li> <li>More direct contact with Pouako (learning advisors) around learning and tracking of achievement (parent/teacher conversations, involvement in option selection etc)</li> <li>Availability of additional courses from outside providers depending on interest and need</li> <li>Support of Whanau class to encourage and plan learning programmes for Māori students</li> <li>That students are taught with a local context that allows them to identify with the learning and the opportunities that present from the local community and context of learning</li> <li>Continuation of Super Tuesday with emphasis on learning new skills, communication and experiencing the workplace</li> <li>Tracking of NCEA Level 2 endorsements with regular update of tracking chart</li> <li>Promote Vocational Pathways Awards and monitor progress towards VPA</li> </ul>	<b>Who is responsible?</b> JHO (tracking and monitoring)  KMO and CGR (senior hub and careers advice)  Pouako
<b>Shift from:</b> students finding the step up to NCEA Level 2 difficult with subjects that they haven't thought through in terms of career path or success in that subject	<b>Shift to:</b> Year 12 students achieving at Level 2 and knowing their career pathway and learning goals for the following year.



Students having little idea of what their pathway is after school (be it in school and education or in the workplace)	
<b>Evidence of Improvement:</b> The pass rate for Level 2 was 83%. This was lower than the targeted pass rate. This does not mean that the 2022 year of learning was not successful. For those students who left school, they were carefully transitioned into full time employment or polytechnic courses that matched their career path. JHO and CGR are really proud of the work that was done through the careers department who monitored and supported student transitions very well. Of the students who did not attend Level 2 in 2022, 1 had a baby, 1 is in alternative education and 2 are educated through Northern Health School. 1 student returned to Turkey.	

<b>Target 4: Year 13</b> - That 85% of students in Year 13 will achieve NCEA Level 3 AND be confident in their career/learning pathway for the future.	
<b>Deliberate Strategies to meet target:</b> <ul style="list-style-type: none"> <li>• Identification of students who which to pursue future study (UE, course requirements) - note that this is not restricted to UE as many of our students have course requirements that are not traditional UE.</li> <li>• Assistance to students who want to find work/apprenticeship/study after school</li> <li>• That students are taught with a local context that allows them to identify with the learning and the opportunities that present from the local community and context of learning</li> <li>• Slow, in depth selection process of subjects</li> <li>• Tracking of achievement throughout the year</li> <li>• Use of Senior Hub to guide and support students to find a career/learning pathway that gives them focus for their study and success</li> <li>• More direct contact with Pouako (learning advisors) around learning and tracking of achievement (parent/teacher conversations, involvement in option selection etc)</li> <li>• Availability of additional courses from outside providers depending on interest and need</li> <li>• Support of Whanau class to encourage and plan learning programmes for Māori students</li> <li>• Continuation of Super Tuesday with emphasis on learning new skills, communication and experiencing the workplace</li> <li>• Tracking of NCEA Level 3 endorsements with regular updates</li> </ul>	<b>Who is responsible?</b> CGR (careers advisor) - which students require UE and are they in the correct courses?  KMO and CGR (senior hub and careers advice)  Pouako  JHO (tracking and monitoring)
<b>Shift from:</b> Students completing Year 13 with little direction and unsure of what to do next (therefore drifting in school for a year) Shifting from attitude that only purpose of NCEA Level 3 is for University Entrance.	<b>Shift to:</b> Students who are confident to pursue NCEA Level 3. That students in Year 13 have a clear goal to achieve their next steps (this might be work, apprenticeship, polytechnic or university).
<b>Evidence of Improvement:</b> That students in Year 13 have a high success rate in NCEA Level 3 and that they all have a route to work/further education after school. The pass rate for NCEA Level 3 was 75%. This was below the target that was set at the start of the year. Several students who started Year 13 realised that the pathway of school, NCEA Level 3 and then University wasn't for them and a much better route was to go to the July intake of Polytechnics and/or full time employment. For those students who left school, they were carefully transitioned into full time employment or polytechnic courses that matched their career path. This was more important than getting a pass rate. Of the students who completed the year, there was still the need for several students to complete supplementary courses to complete NCEA Level 3. This reflects the impacts of COVID on several students who had to have time off school. This also indicates the need for teachers to get assessments completed in a more timely fashion so that Level 3 can be secured preferably before the NCEA external exams (where our students don't perform as well)	

