



Lincoln High School Analysis of Variance 2019

Analysis of Variance 2019 (Te tātari i ngā rerekētanga)

Student Achievement Target 1

Strategic Goal 3	Students will achieve excellent academic results							
Target 1	The highest qualifications of Māori school leavers will continue to grow.							
Baseline Data	<div data-bbox="336 539 1724 1145" style="text-align: center;"> <p>Te Kura Tuarua o Waihora Māori Leaver Results</p> <p>Legend:</p> <ul style="list-style-type: none"> L1+ (Blue bar) L2+ (Orange bar) L3 (or above) (Grey bar) UE (Yellow bar) Linear (L1+) (Blue dotted line) Linear (L2+) (Orange dotted line) Linear (L3 (or above)) (Grey dotted line) Linear (UE) (Yellow dotted line) </div> <p>Māori leaver data 2018</p> <table border="1" data-bbox="336 1220 1534 1359"> <thead> <tr> <th></th> <th>Whole Cohort</th> <th>Māori</th> </tr> </thead> <tbody> <tr> <td># Leavers</td> <td>333</td> <td>37</td> </tr> </tbody> </table>			Whole Cohort	Māori	# Leavers	333	37
	Whole Cohort	Māori						
# Leavers	333	37						

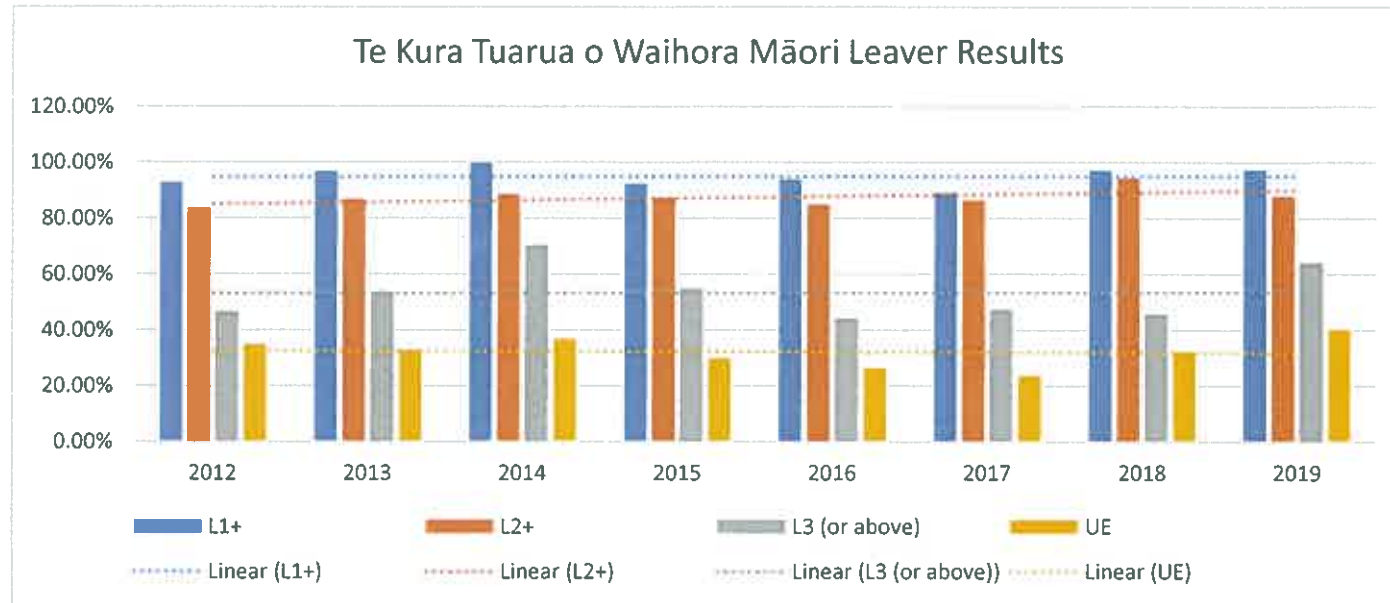
No Formal Achievement	1	0
L1+	94.9%	97.3%
L2+	89.8%	94.6%
L3 (or above)	58.3%	45.9%
UE	41.5%	32.4%

Analysis for 2019

	2013		2014		2015		2016		2017		2018		2019	
	Whole Cohort	Māori	Whole Cohort	Māori	Whole Cohort	Māori	Whole Cohort	Māori	Whole Cohort	Māori	Whole Cohort	Māori	Whole Cohort	Māori
# Leavers	326	30	314	27	300	40	343	34	331	38	333	37	401	42
No Formal Attainment	0	0	2	0	2	0	2	1	2	0	1	0	2	1
L1+	96.9%	97.0%	97.4%	100%	96.6%	92.5%	95.6%	94.1%	95.1%	89.4%	94.9%	97.3%	96.0%	97.6%
L2+	89.0%	87.0%	92.3%	88.8%	88.6%	87.5%	87.1%	85.3%	91.5%	86.8%	89.8%	94.6%	89.8%	88.1%
L3 (or above)	57.1%	53.8%	61.4%	70.4%	53.0%	55.0%	54.8%	44.1%	61.9%	47.3%	58.3%	45.9%	63.6%	64.3%
UE	44.8%	33.0%	46.4%	37.0%	38.0%	30.0%	38.2%	26.5%	41.9%	23.6%	41.5%	32.4%	41.6%	40.4%

Analysis:

- The Level 1 result has stayed consistent with 2018. The drop off in Level 2 is noted, but out of the four students who left with NCEA Level 1 as their highest qualification, three have gone on to further Study. Only 1 student left Lincoln High School without NCEA Level 1 in 2019.
- An area of concern is still the percentage of our Māori student leavers obtaining University Entrance. We will continue to focus on what is happening with regard to University Entrance for our Māori students. It is important to note that out of the Year 13 Māori students who were aiming to achieve University Entrance at the beginning of 2019, all students obtained the University Entrance qualification.

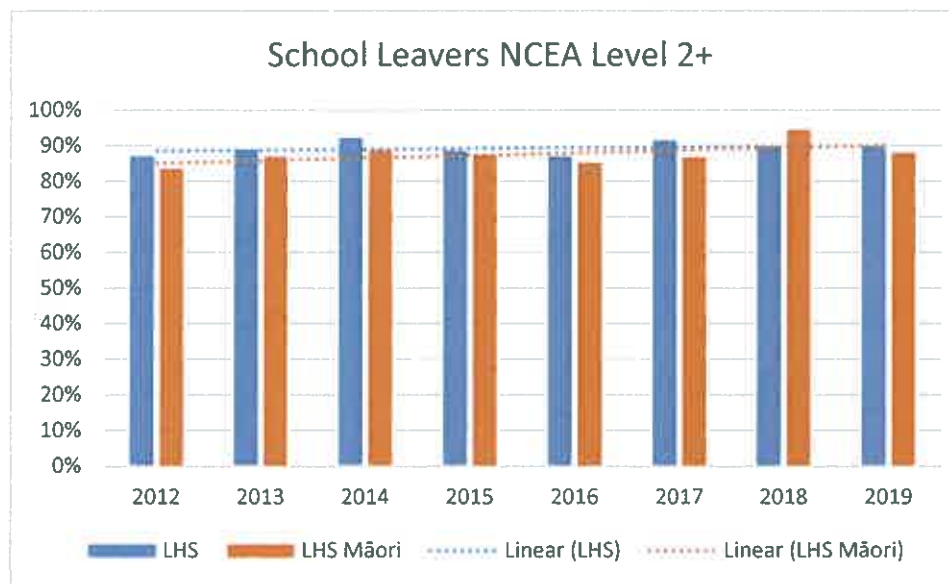


Māori School leavers with at least NCEA Level 2 or equivalent

Priority outcome one in the Ministry of Education statement of intent is; improving education outcomes for Māori learners.

One of the goals of Ka Hikitia – Accelerating Success 2013-2018 states:

- Of the Māori students who turn 18 in 2017, 85% will achieve at least NCEA Level 2 or an equivalent qualification
- Lincoln High School Māori students leaving school with at least Level 2 is at 88.1% which is above the national long-term goal.



Analysis:

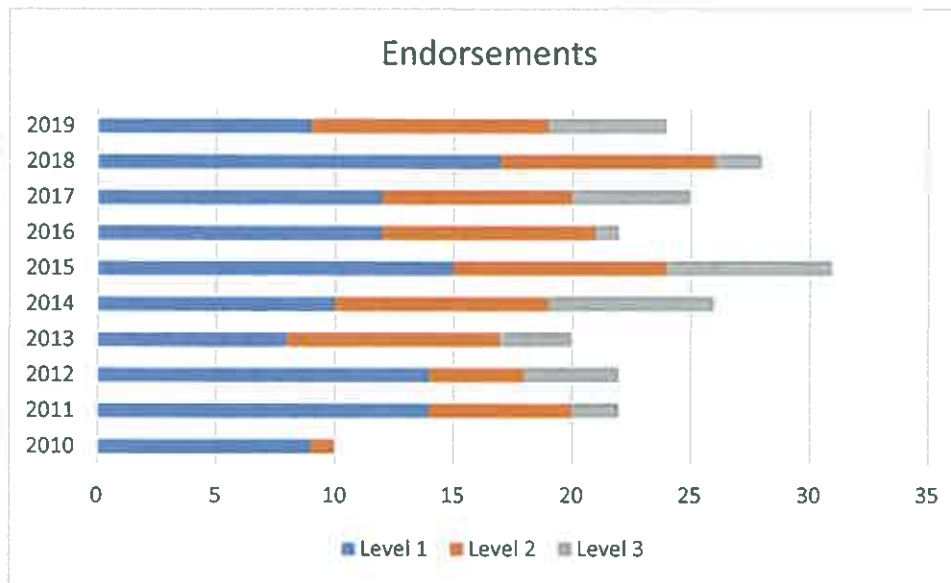
For the last seven years, we have achieved the goal of Ka Hikitia of 85% of students who turn 18 achieving NCEA Level 2.

Evaluation & where to from here:

We will continue to monitor the progress of our Māori school leavers. While positive to see that 88% of our Māori school leavers have achieved at least NCEA Level 2, it is important to note that some of our leavers although leaving without Level 2 are going on to further tertiary study.

Māori Student Endorsements

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Level 1	9	14	14	8	10	15	12	12	17	9
Level 2	1	6	4	9	9	9	9	8	9	10
Level 3	0	2	4	3	7	7	1	5	2	5



We feel it is important to continue to have high expectations (Mana Motuhake) for our Māori students, so have included data on our endorsements for Māori students.

The endorsement rates for Level 2 have remained very similar to last year, but our Level 1 has dropped from the previous year. Through conversations with these students, they were simply hoping to pass and not worried about a Level 3 endorsement.

Nga ākongā Māori - Te Kura Tuarua o Waihora 2019

Year Level	Number of Māori Students
9	25
10	15
11	24
12	38
13	31
Total:	133/1454 (9.1%)

School Leaver Information

During 2019, out of the 42 school leavers, 27 left with Level 3 or higher, which is a significant improvement from 2018. We are continuing to have conversations with our Māori students to ensure that a “strong pathway” – Te Arāririā is taking place. This is also being supported by the LINC teacher who will work in a one on one mentoring capacity with all students.

Of the 15 Māori student leavers who left without NCEA Level 3, 10 of these students will be continuing their education in the tertiary setting and will be completing NCEA Level 3 through a course.

A continued area of concern is students leaving with University Entrance with only 17 of the 42 Māori student leavers having achieved this.

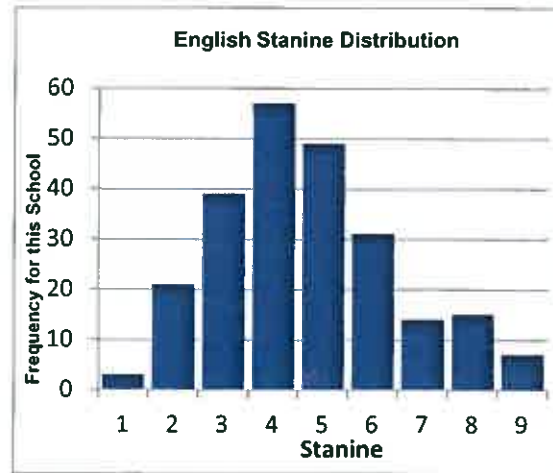
	<p>Analysis</p> <p>NCEA Level 2 was the only drop in leaver results this year and that was due to a number of the students leaving for work or trade study rather than completing the school year.</p> <p>Evaluation and Where to from here</p> <p>We will continue to monitor the progress of our Māori school leavers and mentor where necessary. An important step of this will be to look at University Entrance and student's eligibility for this.</p>
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Student Achievement Target 2

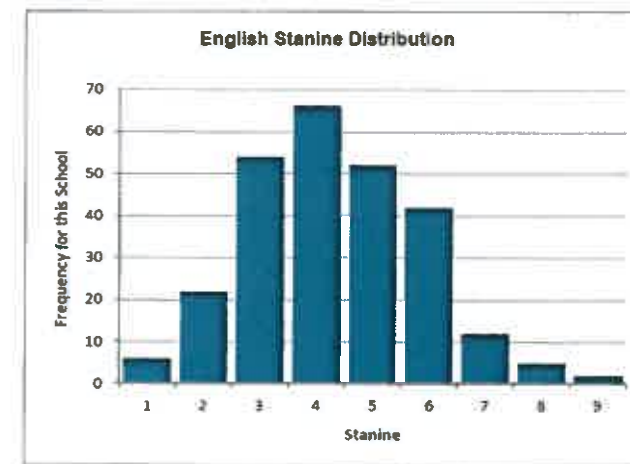
Strategic Goal 3	Students will achieve excellent academic results
Target 2	<p>Year 9 Māori students will achieve as follows:</p> <ul style="list-style-type: none"> • Supported learning class will be at Level 3 relational (SOLO) or 3P (AsTTle) • Core classes will be at level 4 relational (SOLO) or 4P (AsTTle) • Enrichment classes – 90% will be at Level 5 multistructural (SOLO) or 5B (AsTTle) <p>in each of Number knowledge, Number operations, Algebra and Literacy</p>
Baseline Data	Entrance test data using 2018 CEM tests

Baseline data

Entrance test data using CEM tests 2018 Year 9 cohort data

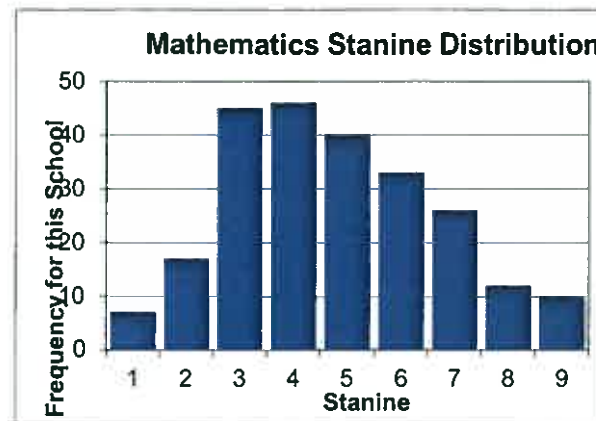


2018 Year 9 cohort

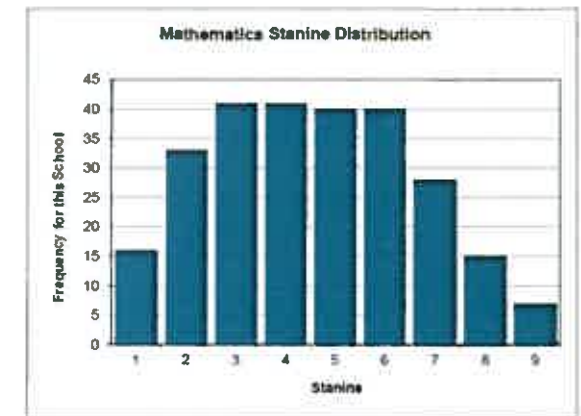


2017 Year 9 cohort

2018 Year 9 cohort	2017 Year 9 cohort
English: approx. 63 students entered with a stanine score between 1-3 (27% of students)	English: approx. 80 students entered with a stanine score between 1-3 (24% of students)
Mathematics: approx. 69 students entered with a stanine score between 1-3 (29% of students)	Mathematics: approx. 90 students entered with a stanine score between 1-3 (27% of students).



2018 Year 9 cohort



2017 Year 9 cohort

Analysis for 2019

Year 9 2019 cohort

FROM WWW.EDUCATIONCOUNTS.GOV.T.NZ based on 1 July 2019 return.

GENDER	MĀORI	PASIFIKA	ASIAN	OTHER	PĀKEHĀ/ EUROPEAN	INTERNATIONAL STUDENTS	TOTAL
FEMALE	15	0	5	2	99	2	123
MALE	10	1	5	1	107	2	126
TOTAL	25	1	10	3	206	4	249

We apply some streaming for our students: Three bands for learning exist which include Enrichment, Core and Supported Learning.

Our Supported Learning classes in English and Mathematics have two teachers working to provide a quality curriculum for the students who are selected on the basis of learning needs.

Supported Learning - Term 3 (AsTTLe)

2019	<2B %	2B %	2P %	2A %	3B %	3P %	3A %	4B %	4P %	4A %	5B %	5P %	5A %
CLASS	6	13	13	19	6	6	6	0	0	25	0	0	6
MALE	9	18	18	9	9	9	9	0	0	18	0	0	0
FEMALE	0	0	0	40	0	0	0	0	0	40	0	0	20
PĀKEHĀ	8	17	8	17	0	8	8	0	0	25	0	0	8
MĀORI	0	0	25	25	25	0	0	0	0	25	0	0	0
PASIFIKA													

Analysis

1. The number of Māori students in each band is very small.
2. It is noted that 27% of the students in Year 9 entered with a stanine score from 1-3.
3. Supported Learning – the goal of all Māori students working at 3P or above was not reached. Only 25% of students were at or above 3P.
4. Core – the goal of all Māori students working at or above 4P was reached.
5. Enrichment – the goal of 90% at 5B or above was not reached. 60% of the Māori students were at or above 5B.

Note:

The supported Learning class has both an English teacher and a Support teacher from the Learning Centre team teach. This continues to allow for more targeted help to individual students.

Next steps:

The Learning area is not convinced that AsTTLe is providing the best testing tool for students and will look to explore other ways of assessing progress. For 2020 we have been offered a one term trial of the Reading Plus online programme (run by LUCID) that promises significant results. It is likely we will trial this in Year 9 and 10 in 2020 with a view to implementing it as part of a Year 10 Literacy intervention option in 2021 if we see the promised results in action.

MATHEMATICS:

As a department we have moved from AsTTle Mathematics, as we believe there are issues with the accuracy of that data and are focusing on reporting on curriculum levels (based on NZC) and depth of thinking (based on SOLO). This is more in line with what students face in NCEA.

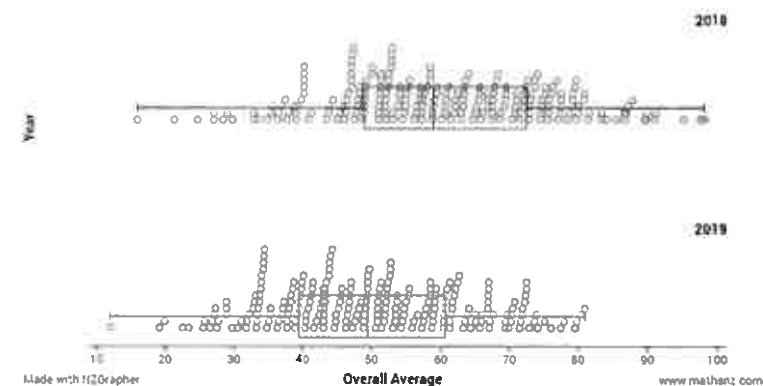
Overall summary of progress in 2019

2019	CURRICM LEVEL	MAO/PAS	MALE	OVERALL	OTHER	No. of ākonga
10MAT	5-6 78% ≥ level	MAO: Okay in isolation, but not when compared to cohort 68% ≥ level <i>PAS: Only 2 ākonga so cannot report</i>	Good 73% ≥ level	Okay	NA	254
9MAT	4-5 99% ≥ level	MAO: Very Good 100% ≥ level <i>PAS: Only 1 student so cannot report</i>	Very Good 98% ≥ level	Very Good	NA	251

NB: Proportions are based on students' grade point average.

Year 9 Cohort

Review of the CEM data at the start of the year revealed that the 2019 Year 9 cohort seemed to be distributed slightly lower than the 2018 Year 9 cohort in terms of the overall average Maths, English and Reasoning scores.



Based on our data, the table below represents our achievement with the school **Year 9 Numeracy** targets:

Year 9 Māori Ākonga

Class	Target	% Below Target	% At or Above Target	Comment
Supported Learning	Working at 3R	0	100	Excellent results
Core	Working at 4R	0	100	Excellent results
Enrichment	90% at or above 5M	40	60	Below target (NB: the 40% represents 2 ākonga)

Analysis

It is important to note that due to the breakdown in our numbers in each of our streamed classes at Year 9, some of the data sets are too small for meaningful analysis.

1. Supported learning - all achieved at 3 Relational or above.
2. Core - all achieved at 4 Relational or above.
3. Enrichment – 60% achieved at 5 Multi structural or above (note that there were only 5 Māori Students in enrichment)

Evaluation and where to from here:

This is the second year we have operated with a reduced level of streaming in the junior school. The SOLO method of evaluating progress in Mathematics at the junior level is providing the data and analysis we feel can reliably report on progress. The learning area feels confident that it is able to monitor and review progress against the curriculum levels as well as plan for higher order thinking activities to improve learning outcomes for all learners. Our Māori students are small in number but have performed well in most classes as compared to the non-Māori students.

In 2019 we had a staff member with a WST role focusing on our junior Mathematics courses, including assessment, pedagogy, boys engagement, growth mindset and the integration of technology. The role involves linking into relevant research, exploring other schools (including feeder schools) all aimed at improving teaching and learning for all of our students. We are hoping that what develops from this role and is implemented in 2020 will help us to improve our target results.

We will continue to monitor the progress of our Māori students using SOLO in Mathematics.

Student Achievement Target 3

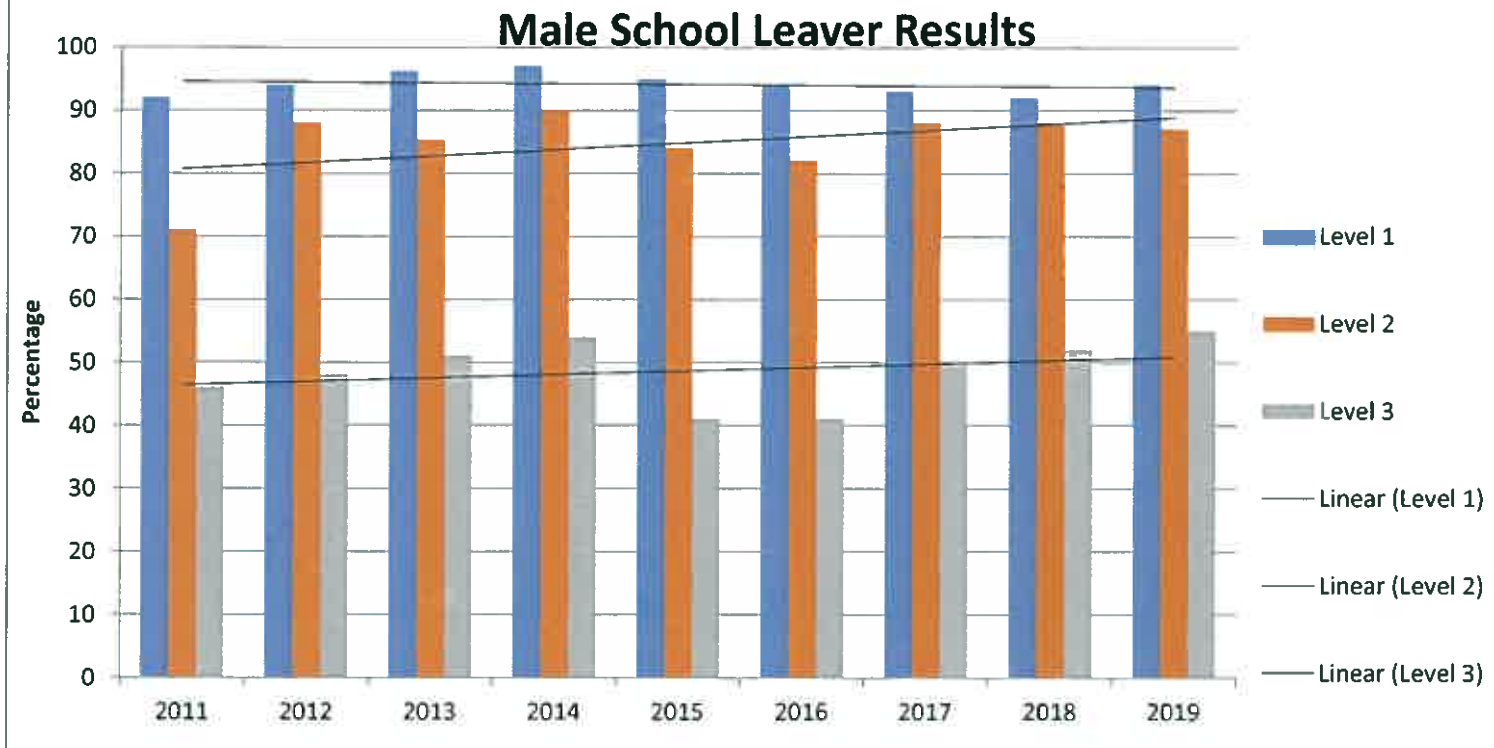
Strategic Goal 3	Students will achieve excellent academic results												
Target	The highest qualifications of male school leavers will continue to improve.												
Baseline Data	Longitudinal Boys data												
	Leaver Data 2010 – 2017 (2017 data provisional from school calculated results)												
		2010	2011	2012	2013	2014	2015	2016	2017				
	Level 1+	91	92	94	96	97	95	94	93				
Level 2+	75	71	88	85	90	84	81	88					
Level 3+	36	46	48	51	54	41	40	50					
	* new UE requirements as of 2014												
	** data inaccuracy rectified with Kamar leaver data												
Analysis for 2019	Male leaver results (%)												
		2011	2012	2013	2014	2015	2016	2017	2018	2019			
	Level 1	92	94	96	97	95	94	93	92	94			
	Level 2	71	88	85	90	84	82	88	88	87			
Level 3	46	48	51	54	41	41	50	52	55				
	2014*		2015**		2016		2017***		2018		2019		
	Whole Cohort	Boys	Whole Cohort	Boys	Whole Cohort	Boys	Whole Cohort	Boys	whole cohort	Boys	whole cohort	Boys	
# Leavers	314	156	300	152	345	180	331	173	333	176	401	203	
No Formal Attainment	2	0	2	1	2	1	1	1	1		2	2	
L1+	97.40%	96.90%	96.60%	95.30%	95.30%	94.40%	95.10%	93.00%	94.90%	92.61%	96.00%	94.08%	

L2+	92.30%	90.10%	88.60%	83.50%	87.50%	81.60%	91.50%	88.40%	89.78%	88.06%	89.77%	86.69%
L3 (or above)	61.40%	54.00%	53.00%	40.70%	55.60%	41.10%	61.90%	50.20%	58.25%	52.84%	63.59%	54.67%
UE	46.40%	38.00%	38.00%	28.90%	38.20%	24.40%	42.30%	28.30%	41.45%	32.95%	41.64%	32.51%

* new UE requirements as of 2014

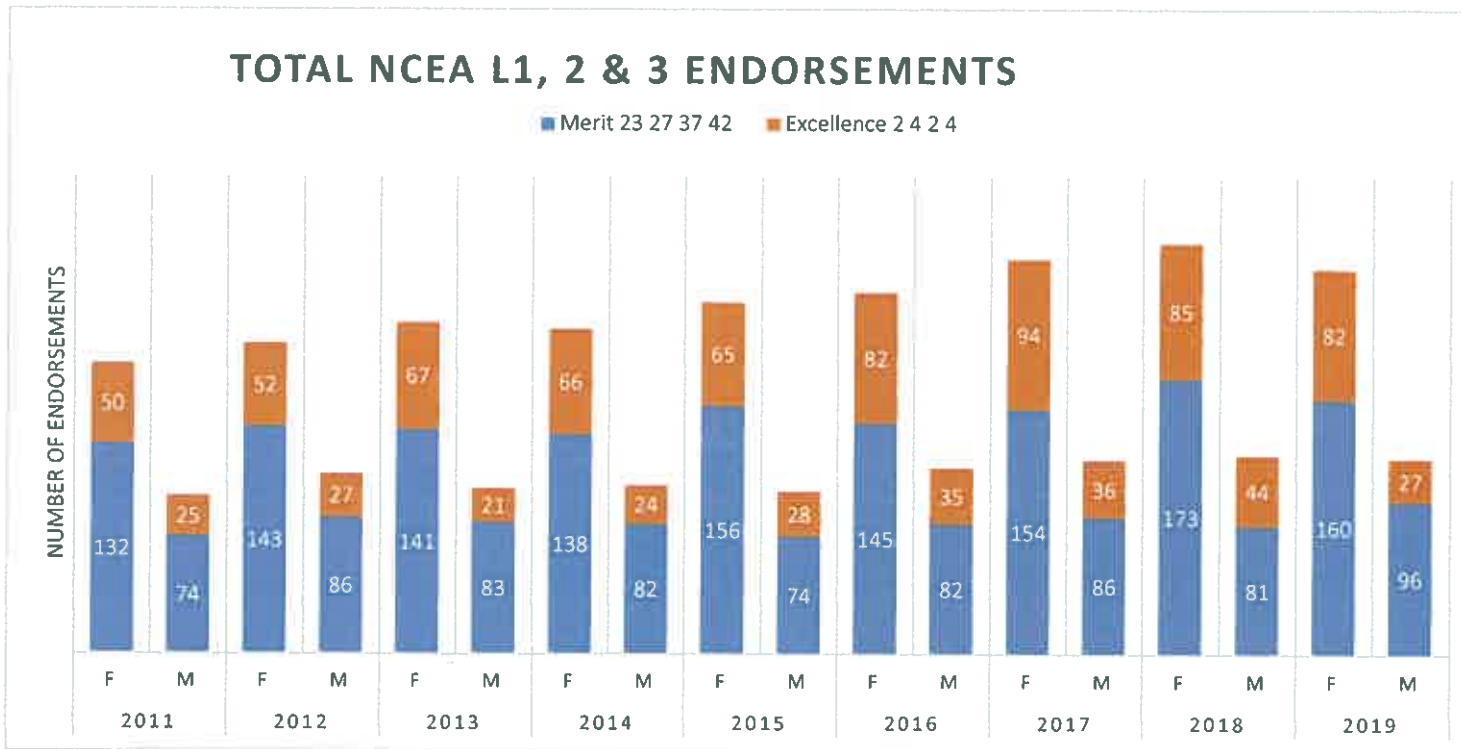
** data inaccuracy rectified with Kamar leaver data

*** Following ERO visit in 2017, Education Counts "Leaver status" criteria followed, see below



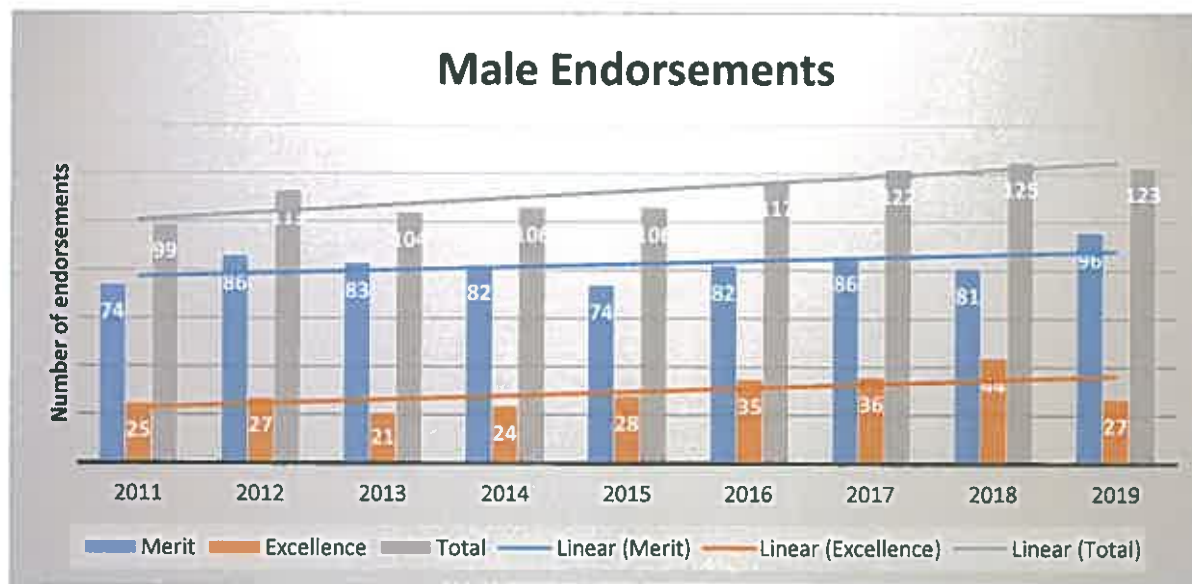
- Our Learning Area reports have a focus of progress for the achievement of boys.
- Year 11-13 Linc teachers monitor student academic progress with the student progressively throughout the year
- A number of courses were offered specifically to increase engagement for boys. Popular choices for boys included: Year 11 English in the Outdoors; Year 12 English in the Outdoors and Outdoor Education in 2019.
- Heads of Levels and the senior tutors monitor progress and support and intervention were offered for boys through the Flexible Learning Room which has proved to be highly successful in 2019. Students work on a variety of individual learning plans and set clear goals for achievement.

Male v Female endorsements



Comparison between male and female endorsements

	2013		2014		2015		2016		2017		2018		2019	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Merit	141	83	138	82	156	74	145	82	154	86	173	81	160	96
Excellence	67	21	66	24	65	28	82	35	94	36	85	44	82	27
Total	208	104	204	106	221	102	227	117	248	122	258	125	242	123



Analysis

- Our male endorsement rates for 2019 have remained as high as 2018 with a big increase in merit endorsements. As in previous years they are approximately half of what females are achieving.
- Our Level 1 male leaver rates for 2019 are slightly higher than in previous years (approx 94%).
- Our Level 2 male leaver rate in 2019 (87%) is approx 3% lower than the girls rate.
- Our Level 3 male leaver rate has shown a steady increase to 54.7% in 2019. UE pass rates have increased since 2017.
- The Level 3 and UE male leaver results in 2019 are similar to 2018 rates with UE at 32.5% and Level 3 increasing from 53% to 54.7%. We believe a larger proportion of males are leaving school prior to Year 13 or not completing L3 NCEA in their Year 13.

Evaluation and where to from here

These achievements for our male students continue to be a focus for us. The department reports highlight male statistics including UE, NCEA pass rates , certificate endorsements, pass rates for individual standards and in the global summary of results. The male statistics form a key part of the presentation the HOLAs give to the BOT and the one on one department report meeting with the Principal.

The UE gender gap is declining (The gap between UE success has reduced to under 10% when comparing the whole cohort leaver data with the boys leaver data (32.5% boys and 41.5% for the whole cohort in 2019). We will continue to work with the Linc teachers in Year 11-13 in particular to see if the boys are achieving their goals and to question their goals as appropriate. English in the Outdoors was been implemented in Level 2 in 2019 and proved successful for boys. A Maths for Life course was introduced in Level 2 in 2019 to increase engagement and relevance for students and in particular boys. This course replaced a poorly achieving alternative Mathematics course and had better male engagement.

Student Achievement Target 4

Strategic Goal 3	Students will achieve excellent academic results																																			
Target 4	The number of Year 13 students leaving school with UE will increase to 78% (i.e. those who are intending to gain UE – not the NZQA measure of those eligible for Level 3). We will also obtain baseline data for the difference between males/females for UE attainment.																																			
Baseline Data	<p>NZQA's statistics on UE pass rates are not meaningful. They do not take in to account the students that are not eligible to obtain UE due to the courses being studied (not UE approved subjects). In 2017 11% of the Yr 13 cohort were not eligible for UE (not studying 3 or more UE approved courses). A further 11% of the cohort did not plan to obtain UE as it was not part of their academic pathway.</p> <p>All students were surveyed and Linc teachers monitored the students UE progress as a way of addressing the expected target for our UE success rate. Our statistics are based on our students' intentions/goals and are therefore specific to our school which is more meaningful</p> <p>Based on a school survey:</p> <ul style="list-style-type: none"> • In 2014 74% of cohort surveyed, 85% were planning to gain UE Result: 74% gained UE • In 2015 72% of cohort surveyed, 82% were planning to gain UE Result: 71% gained UE • In 2016 72% of cohort surveyed, 83% were planning to gain UE Result: 73% gained UE • In 2017 100% cohort surveyed. 78% were planning to gain UE Result: 76% gained UE 																																			
Analysis for 2019	<p>Students were surveyed in Linc at the end of every term.</p> <table border="1" data-bbox="481 1093 1765 1284"> <thead> <tr> <th></th> <th></th> <th></th> <th>All</th> <th>Male</th> <th>Female</th> </tr> </thead> <tbody> <tr> <td>Total students surveyed:</td> <td></td> <td>273</td> <td>(100 % of cohort)</td> <td>128</td> <td>145</td> </tr> <tr> <td># aiming for UE</td> <td></td> <td>194</td> <td>71%</td> <td>81</td> <td>113</td> </tr> <tr> <td># not aiming for UE</td> <td></td> <td>79</td> <td>29%</td> <td>47</td> <td>32</td> </tr> </tbody> </table> <table border="1" data-bbox="481 1324 1765 1361"> <tbody> <tr> <td>Total number of students in cohort as end of Term 4.</td> <td></td> <td>273</td> <td></td> <td>128</td> <td>145</td> </tr> </tbody> </table>									All	Male	Female	Total students surveyed:		273	(100 % of cohort)	128	145	# aiming for UE		194	71%	81	113	# not aiming for UE		79	29%	47	32	Total number of students in cohort as end of Term 4.		273		128	145
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Number eligible to gain UE		235	103	132
% of cohort that are eligible		86.1%	80.5%	91.0%
% aiming for UE that are eligible		82.6%	78.6%	85.6%

Actual number gaining UE		158	62	96
Total of those aiming for UE		194	81	113

% of those aiming & gained UE 2019		81.4%	76.5%	85.0%
% of those aiming & gained UE 2018		80.8%	77.3%	83.5%

Results and notes:

- 1) * Graduation Diploma introduced 2016
- 2) 2017 was the first year to have 100% of cohort surveyed by Linc teachers
- 3) approx. 80% of cohort surveyed in 2014 & 2015
- 4) Target increased from 78% to 82% in 2019

Target	75%
2014 result	74.0%
2015 result	70.6%
*2016 result	72.6%
2017 result	75.7%
Target	78%
2018 result	80.8%
Target	82%
2019 result	81.4%

Analysis

- We were close to the target of 82% of students that were planning to gain UE, actually obtaining UE. The accuracy of the data collection depends on a number of teachers collating data each term. The Mentoring programme in the school continues to strengthen and provide more opportunities to discuss goals and progress with students in Year 13.
- Students continue to opt for courses which they are interested in and are not always focused on whether or not they are UE approved. Some of our students do not see University as a future pathway, which is entirely appropriate for them.
- The Graduation Diploma is an established motivator for students that were challenged by NCEA Level 3. All students that want to attend graduation met the graduation criteria, in particular the 70% success rate with their internals
- Investigating gender UE success rates has proved helpful in analysing the data. While our NZQA data for UE success remains lower than expected when compared to other Decile 10 schools, we find that 77% of boys and 85% of girls that wanted to achieve UE did achieve it.

Evaluation and where to from here

- Some of the students fell short of gaining UE by just a few credits. This is despite the mentoring and support given to students during the year. We have improved our methods and reliability in obtaining the data from the students during the year and our evaluation of males and females separately in 2019 has enabled us to further reflect on next steps. We now need to look at why the males don't want to achieve UE – for example: what are they leaving school to do?
- We will continue to support Linc teachers to monitor the goal for all Year 13 students but in particular our male students
- It continues to be a concern for us that UE success is one measure that can't be directly read of the KAMAR system or the parent portal and hence the importance of closer monitoring and discussion on the goal
- We will extend our goal for 2020 and develop more analysis of the difference between the male and female successes in UE as there is still a large disparity between the two results at present.
- It is very evident that we started with a goal of 75% achievement in UE 4 years ago and have increased this to 82% in 2020 so the goal has enabled us to focus on improvement for our male learners.