Analysis of Variance 2020 (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	

Māori leaver data 2020

	Whole Cohort	Māori
# Leavers	319	34
No Formal Achievement	1	0
L1+	86.8%	97.1%
L2+	85.0%	91.2%

	L3 (or above)	67.1%	64.7%
	UE	50.4%	38.2%

Analysis for 2020

	2013		2014		2015		2016		2017		2018		2019		2020	
	Whole Cohort	Māori	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	319	34
No Formal Attainment	0	0	2	0	2	0	2	1	2	0	1	0	2	1	0	0
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%	95.2%	86.8%	97.1%
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%	85.7%	85.0%	91.2%
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%	62.5%	67.1%	64.7%
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%	50.4%	38.2%

Analysis:

- The Level 1 result has stayed consistent with 2019 and it is pleasing to see an improvement in students obtaining NCEA Level 2. Two of the three students who left without NCEA Level 2 have gone on to study. Only 1 student left Lincoln High School without NCEA Level 1 in 2020. The number of students leaving with NCEA Level 3 continues to improve and is a long way from 2005 when this was only 7%.

- 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.

Te Kura Tuarua o Waihora Māori Leaver Results
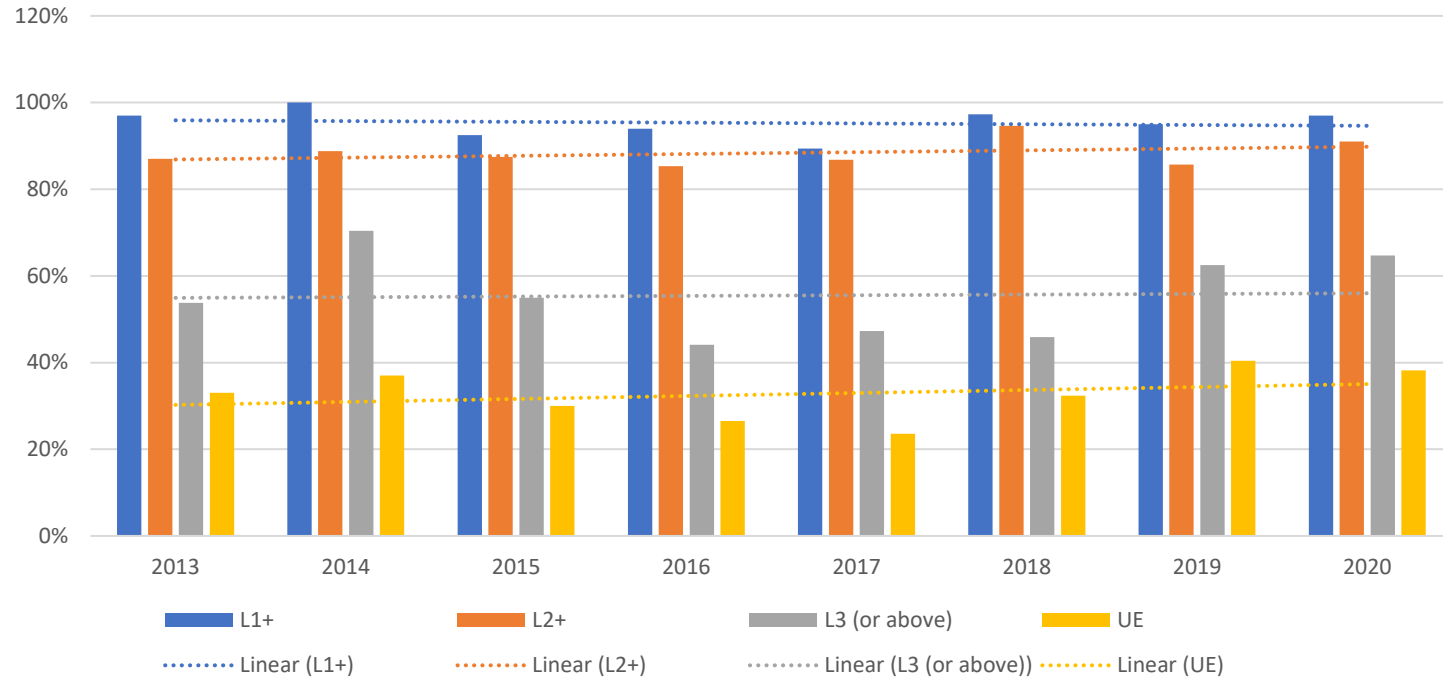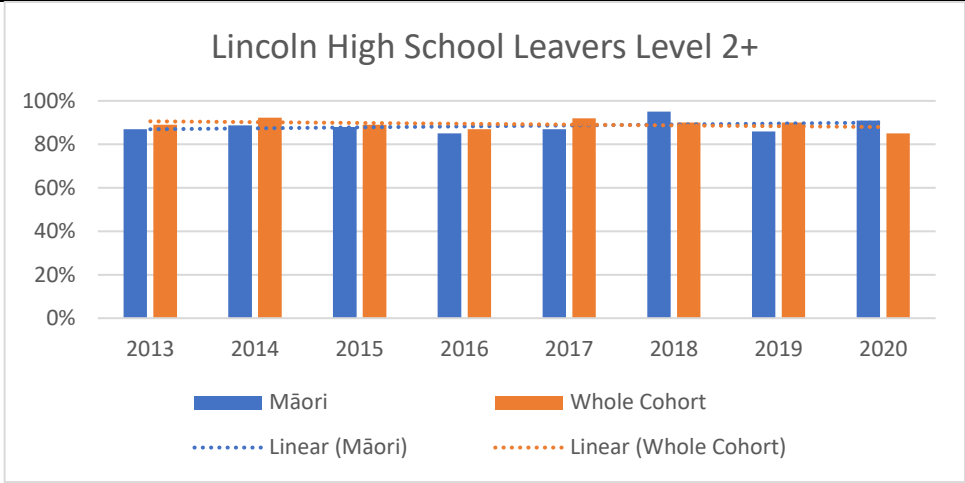

Māori School leavers with at least NCEA Level 2 or equivalent

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 92.1% which is above the national long-term goal.

Lincoln High School Leavers Level 2+

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 91% 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	2020
Level 1	9	14	14	8	10	15	12	12	17	9	0
Level 2	1	6	4	9	9	9	9	8	9	10	7
Level 3	0	2	4	3	7	7	1	5	2	5	5

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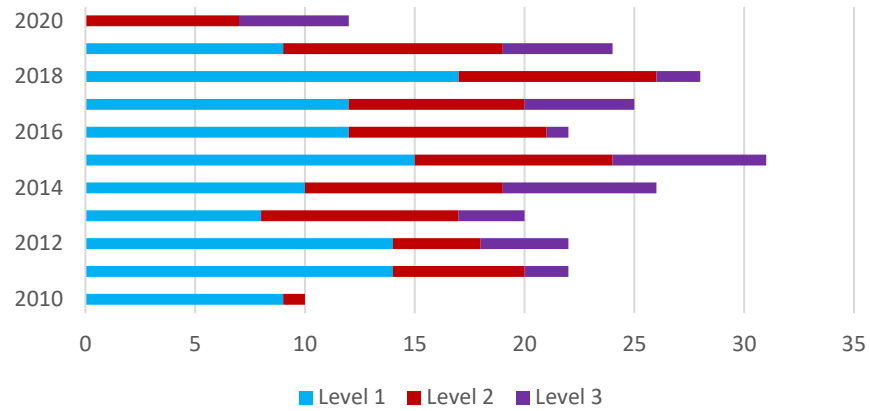
We feel it is important to continue to have high expectations (Mana Motuhake) for our Māori students, so have included data on our endorsements for Māori students.

Through conversations with a number of our Māori students, they are simply hoping to pass and not worried about an endorsement.

**Nga ākonga Māori - Te Kura Tuarua o Waihora 2020**

Year Level	Number of Māori Students
9	29
10	30
11	23
12	22
13	32
Total:	136

School Leaver Information

During 2020, out of the 34 school leavers, 22 left with Level 3 or higher, which is a slight improvement from 2019. We are continuing to have conversations with our Māori students to ensure that a "strong pathway" – Te Arārirā 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.

A continued area of concern is students leaving with University Entrance with only 12 of the 34 Māori student leavers having achieved this.

Analysis

It was pleasing that the number of school leavers with NCEA Level 2 or NCEA Level 3 continues to improve from 2019.

Evaluation and Where to from here

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.

Student Achievement Target 2

Strategic Goal 3	Students will achieve excellent academic results
Target 2	Year 9 Male students will achieve as follows: • 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) in each of Number knowledge, Number operations, Algebra and Literacy. (NB: Mathematics learning area are using SOLO and English Learning Area are using AsTTle)
Baseline Data	We have identified a tail in our male data from the entrance testing for Year 9 students in 2020. In English the males' median of 47% is considerably lower than the females at 54% While the males' Math results overall yield a median of 49% compared with 42% for the females, the lower half of the data is more widely spread in males. Below are the CEM Entrance Test results for the 2020 Year 9 cohort.

Maths.. by Year subset by Gender
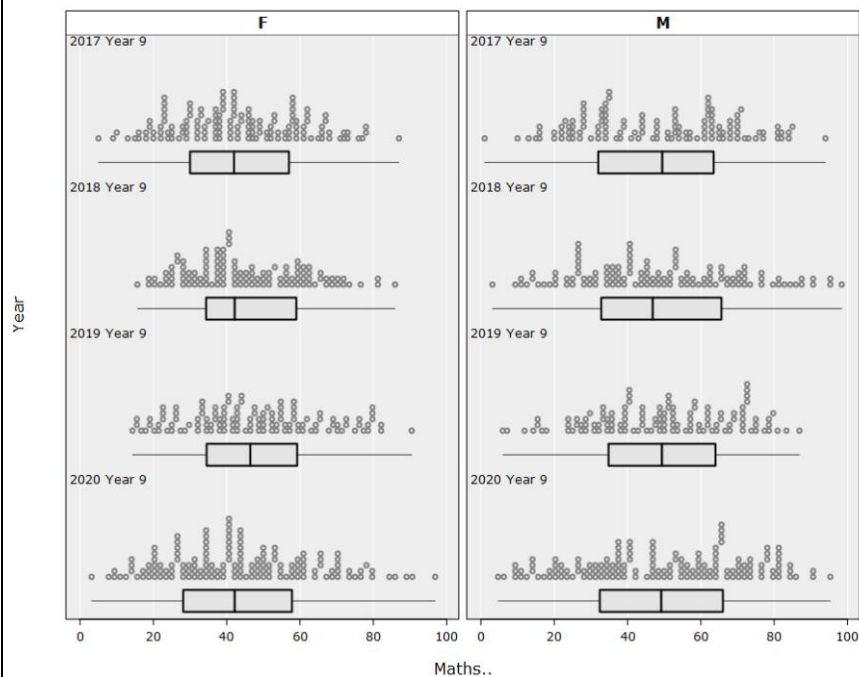
English.. by Year subset by Gender

	F	M
2017 Year 9		
2018 Year 9		
2019 Year 9		
2020 Year 9		

Maths..

English..
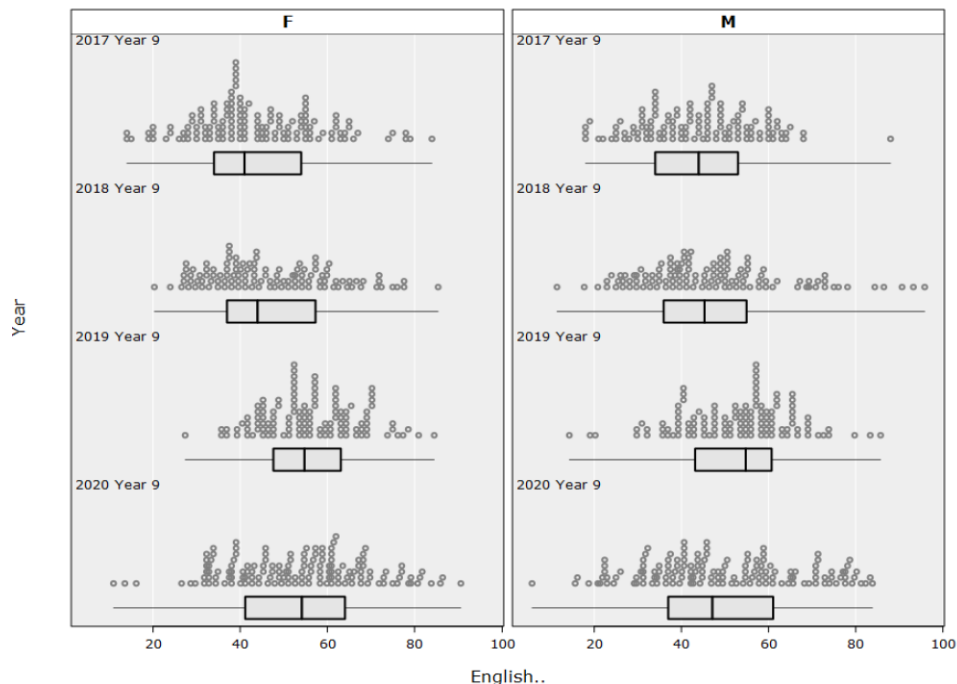
Analysis for 2020

Year 9 2020 cohort

FROM WWW.EDUCATIONCOUNTS.GOVT.NZ based on 1 July 2020 return

GENDER	MĀORI	PASIFIKA	ASIAN	OTHER	PĀKEHĀ/ EUROPEAN	INTERNATIONAL STUDENTS	TOTAL
FEMALE	18	1	9	8	120	0	156
MALE	10	2	10	6	124	4	156
TOTAL	28	3	19	14	244	4	312

.

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.

2020 Data (From KAMAR Term 4, 2020) Number of students in each grouping

	ENRICHMENT	CORE	SUPP. LEARNING	Total
COHORT	53	235	15	303
MĀORI	7	19	1	27
Males	29	111	9	149
Females	24	124	6	154

The percentage of students who entered Year 9 with a stanine score from 1-3 was 21% in English; 33.4% in Mathematics and 38% in Reasoning.

English 2020

Reading Term 3– Enrichment (AsTTle)

2020	4A %	5B %	5P %	5A %	6B %	6P %	6A %	>6A %	Target 5B/>
CLASS	4	13	13	40	21	8	0	0	95
MALE	3	14	10	45	21	7	0	0	97
FEMALE	4	13	17	35	22	9	0	0	96
PĀKEHĀ	0	11	11	47	19	11	0	0	100
MĀORI	14	29	43	14	0	0	0	0	86
PASIFIKA									

Writing Term 3 – Enrichment (AsTTle)

2020	3A %	4B %	4P %	4A %	5B %	5P %	5A %	6B %	>6B %	Target 5B/>
CLASS	2	19	17	11	28	4	6	0	13	51
MALE	3	31	17	10	31	3	3	0	0	37
FEMALE	0	4	17	13	25	4	8	0	29	65
PĀKEHĀ	3	19	22	14	19	5	5	0	14	43
MĀORI	0	43	0	0	43	0	0	0	14	57
PASIFIKA										

Reading Term 3 – Core (AsTTle)

2020	<2B/2B %	2P %	2A %	3B %	3P %	3A %	4B %	4P %	4A %	5B %	5P %	5A %	6B %	6P %	6A %	Target 4P/>
CLASS	1	1	2	1	5	3	7	10	39	23	5	1	2	0	0	**80**
MALE	2	0	3	4	3	5	5	8	10	37	17	4	1	2	0	**79**
FEMALE	1	0	0	0	5	1	6	9	41	29	5	1	2	1	0	**88**
PĀKEHĀ	1	2	1	2	6	2	9	8	37	24	5	1	1	1	0	**77**
MĀORI	0	0	0	0	0	5	0	20	45	25	5	0	0	0	0	**95**
PASIFIKA	0	0	0	0	0	50	0	0	0	50	0	0	0	0	0	**50**

Writing Term 3 – Core (AsTTle)

2020	<1P/1P %	1A %	2B %	2P %	2A %	3B %	3P %	3A %	4B %	4P %	4A %	5B %	5P %	5A %	6B %	>6B %	Target 4P/>
CLASS	1	0	0	2	1	3	5	6	10	14	21	23	3	4	4	4	**73**
MALE	3	0	0	2	2	4	8	10	11	16	17	19	3	4	1	2	**62**
FEMALE	0	0	0	2	0	1	2	2	9	12	25	26	4	5	7	6	**85**
PĀKEHĀ	1	0	0	2	1	3	4	7	10	16	20	22	3	5	3	4	**73**
MĀORI	0	0	5	0	0	0	5	0	5	0	50	25	0	5	5	0	**85**
PASIFIKA	0	0	0	0	0	0	50	0	0	0	0	50	0	0	0	0	**50**

Reading Supported Learning - Term 3 (AsTTle)

2020	<2B %	2B %	2P %	2A %	3B %	3P %	3A %	4B %	4P %	4A %	Target 3P/>
CLASS	0	6	24	6	18	12	12	18	6	0	**48**
MALE	0	0	30	10	20	0	30	10	0	0	**40**
FEMALE	0	14	14	0	14	29	29	0	0	0	**58**
PĀKEHĀ	0	7	21	7	21	14	7	14	7	0	**42**
MĀORI	0	0	0	0	0	0	0	100	0	0	**100**
PASIFIKA	0	0	100	0	0	0	0	0	0	0	**0**

Writing Supported Learning - Term 3 (AsTTle)

2020	<1P/1P %	1A %	2B %	2P %	2A %	3B %	3P %	3A %	4B %	Target 3P/>
CLASS	0	0	0	12	18	18	24	6	24	**54**
MALE	0	0	0	20	30	20	30	0	0	**30**
FEMALE	0	0	0	0	0	14	14	14	57	**85**
PĀKEHĀ	0	0	0	14	21	14	21	7	21	**49**
MĀORI	0	0	0	0	0	0	100	0	0	**100**
PASIFIKA	0	0	0	0	0	100	0	0	0	**0**

Analysis - Reading

1. Supported Learning
   - The reading target of all male students working at 3P or above was not reached. Only 40% of students were at or above 3P.
   - While the writing target was not achieved 0% males were at 3P at the start of the year but this increased to 30% by the end of Term 3.

2. Core
   - The reading target of all male students working at or above 4P was not reached with 79% working at or above 4P. An improvement from Term 1 to Term 3 was noted for male students.
   - While the writing target was not achieved 42% males were at 4P at the start of the year but this increased to 62% by the end of Term 3.

3. Enrichment –
   - The reading target was reached with 95% students achieving 5B or above both Term 1 and Term 3; however, 6B or above has increased from 22% to 29%.
   - The writing target was not reached and the results were very disappointing with a drop from 72% males achieving the target in Term 1 to 37% achieving the target in Term 3. The fall in achievement has been baffling and teacher feedback has been around the student reticence about using the photo starters provided for the writing test.

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 were offered a one term trial of the Reading Plus online programme (run by LUCID) that promises significant results. Unfortunately, due to the challenges of 2020 we did not trial this in Year 9 and 10 in 2020. We will follow up in 2021 and see if this can be implemented through the Learning Support Department. The HOLA English will work with the WSL Data person to better understand the CEM data to have more analysis of the Year 8 students as they start in Year 9.

We are excited to have an ASL Literacy in 2021 based in our school who will work across the Kāhui Ako to improve Literacy levels.

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 the NZC.

Overall summary of progress in 2020

2020	CURRICULUM LEVEL	MAO/PAS	MALE	OVERALL	OTHER		No. of ākonga
10MAT	5-6 64% ³ level	MAO: poor 37% ³ level *PAS: Only 1 ākonga so cannot report*	Okay 62% ³ level On par with overall result	Okay	Good 75% ³ level		273
9MAT	4-5 93% ³ level	MAO: Very Good 96% ³ level *PAS: Only 3 ākonga so cannot report*	Good 89% ³ level	Very Good	Very good 97% ³ level		315

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

Year 9 Cohort 2020

Class	Target	% Below Target	% At or Above Target	Comment
Supported Learning	Working at 3R	18	82	Lower than previous years
Core	Working at 4R	21	79	Lower than previous years
Enrichment	90% at or above 5M	20	80	Lower than previous years

Year 9 Males 2020

Class	Target	% Below Target	% At or Above Target	Comment
Supported Learning	Working at 3R	20	80	Lower than previous years
Core	Working at 4R	30	70	Lower than previous years
Enrichment	90% at or above 5M	57	43	Lower than previous years

Analysis

1. **CEM Data:** The 2020 Year 9 cohort seemed to be much lower than the 2019 Year 9 cohort in terms of Numeric Reasoning and also slightly lower than the 2018 and 2017 cohorts.

2. Once again with the GPAs for males we see that they are performing well with 89% at or above the expected level. However, when you look at the individual topic breakdowns, it is very noticeable that in Statistics, Measurement and Algebraic Thinking the females are outperforming the males quite significantly. We do need to continue to work to keep both boys and girls engaged and succeeding at a high level and we are looking to scaffold assessment at Level 3 more to encourage students to make a start and have greater success.

3. CEM data suggests this cohort is just slightly lower than the 2019 cohort, though much more spread out. Despite this our numbers at or above the target are way down. Is this the result of COVID19 lockdown and the ongoing implications or is there something else involved? One of our foci is addressing the poor work habits we are seeing in some of our core Year 9's and 10's (and in Year 11), where students do not seem to have the organisational skills or desire to take work through to completion. This is a concerning trend and needs addressing urgently.

Evaluation and where to from here:

This is the third 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 male students have performed reasonably well as compared to females in Supported Learning and Core classes. Our Enrichment class males have performed very poorly which needs looking at with urgency as this mirrors what was found in the Writing assessment for the Enrichment males.

There remains a big question over the success or otherwise of streaming classes. We have a Deputy Principal who is tracking progress from Year 9 and this year they are in Year 13 so a full evaluation/review of value-added will be completed in 2021.

We will continue to monitor the progress of our students using SOLO in Mathematics and in particular monitor male student progress.

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 2020

Male leaver results (%)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Level 1	92	94	96	97	95	94	93	92	94	96
Level 2	71	88	85	90	84	82	88	88	87	91
Level 3	46	48	51	54	41	41	50	52	55	67

	2015**		2016		2017***		2018		2019		2020	
	Whole Cohort	Boys	Whole Cohort	Boys	Whole Cohort	Boys	whole cohort	Boys	whole cohort	Boys	whole cohort	Boys
# Leavers	300	152	345	180	331	173	333	176	401	203	319	148
No Formal Attainment	2	1	2	1	1	1	1		2	2	0	0
L1+	96.6%	95.3%	95.3%	94.4%	95.1%	93.0%	94.9%	92.6%	96.0%	94.1%	96.2%	95.4%
L2+	88.6%	83.5%	87.5%	81.6%	91.5%	88.4%	89.8%	88.1%	89.8%	86.7%	91.2%	88.1%
L3 (or above)	53.0%	40.7%	55.6%	41.1%	61.9%	50.2%	58.3%	52.8%	63.6%	54.7%	67.0%	58.3%
UE	38.0%	28.9%	38.2%	24.4%	42.3%	28.3%	41.5%	33.0%	41.6%	32.5%	tbc	tbc

* 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

Male School Leaver Results
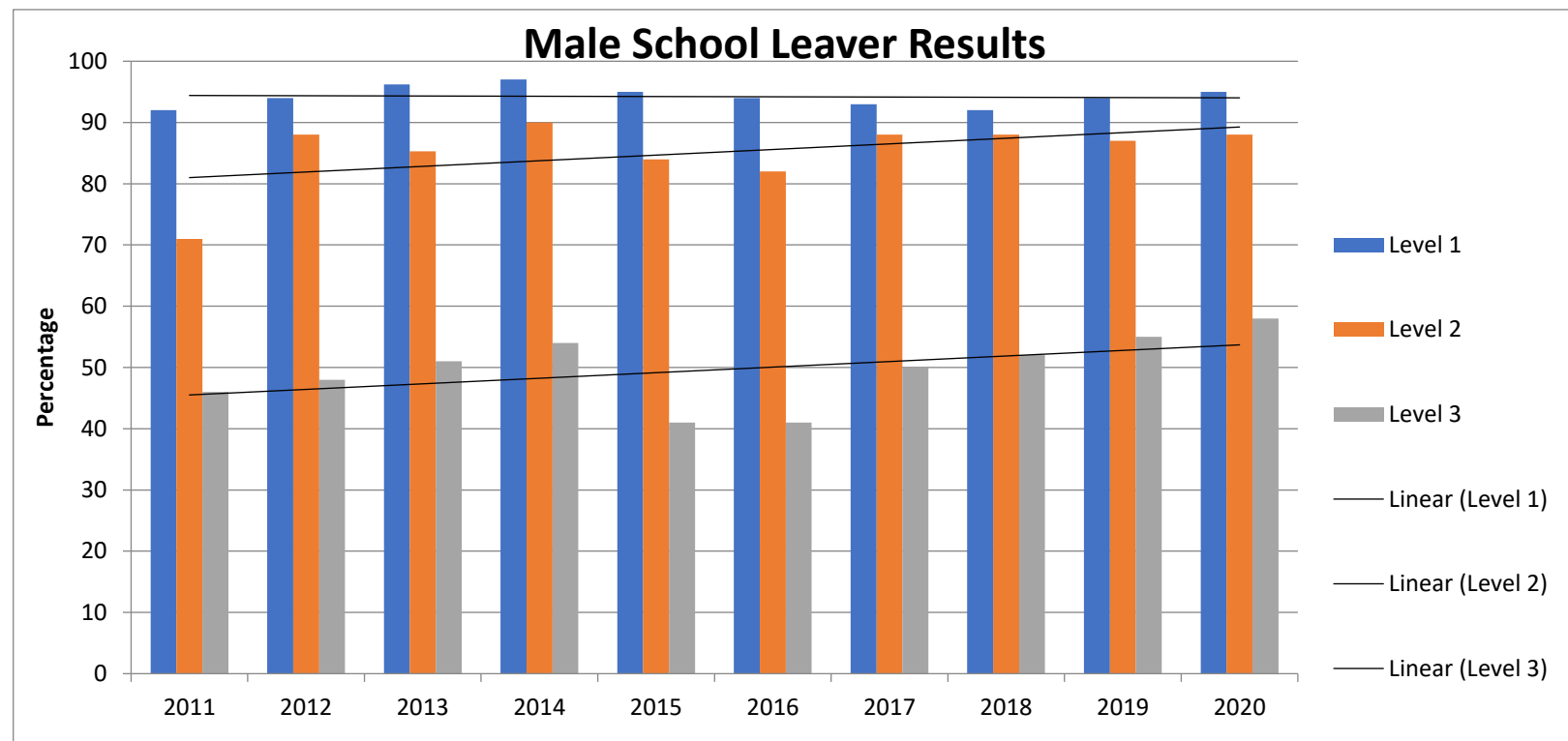
- Our Learning Area reports have a focus of progress for the achievement of boys.
- A number of courses were offered specifically to increase engagement for boys and the semesterisation at Year 11 has enhanced these choices.
- Heads of Levels and the Year 11-13 tutors monitor progress and support and intervention were offered for boys through the Flexible Learning Room which has proved to be highly successful again in 2020. Students work on a variety of individual learning plans and set clear goals for achievement.

Male v Female endorsements

TOTAL NCEA L1, 2 & 3 ENDORSEMENTS

■ Merit ■ Excellence

Year	F Merit	F Excellence	M Merit	M Excellence
2011	132	50	74	25
2012	143	52	86	27
2013	141	67	83	21
2014	138	66	82	24
2015	156	65	74	28
2016	145	82	82	35
2017	154	94	86	36
2018	173	85	81	44
2019	160	82	96	27
2020	73	42	45	15

NUMBER OF ENDORSEMENTS
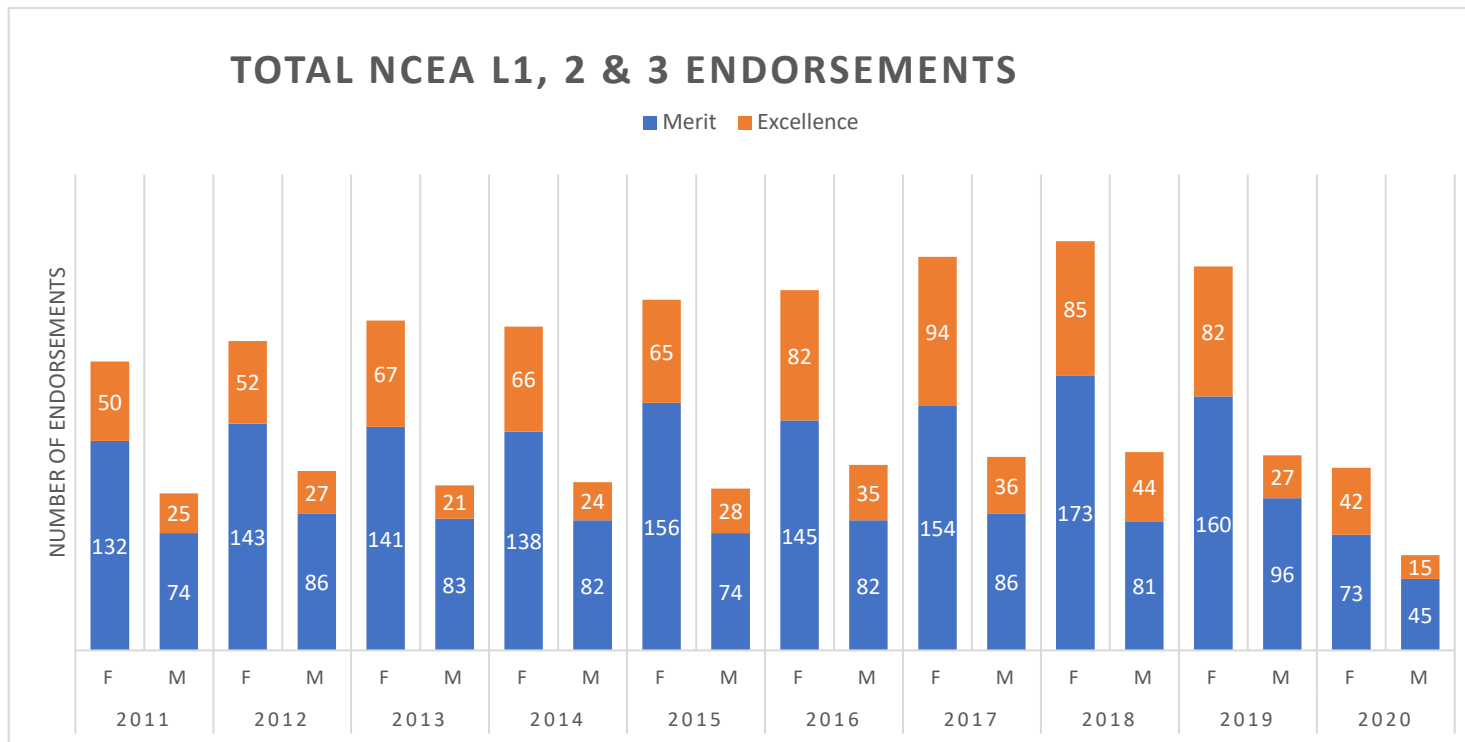
Comparison between male and female endorsements

	2014		2015		2016		2017		2018		2019		2020	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Merit	138	82	156	74	145	82	154	86	173	81	160	96	73	45
Excellence	66	24	65	28	82	35	94	36	85	44	82	27	42	15
Total	204	106	221	102	227	117	248	122	258	125	242	123	115	60

Male Endorsements
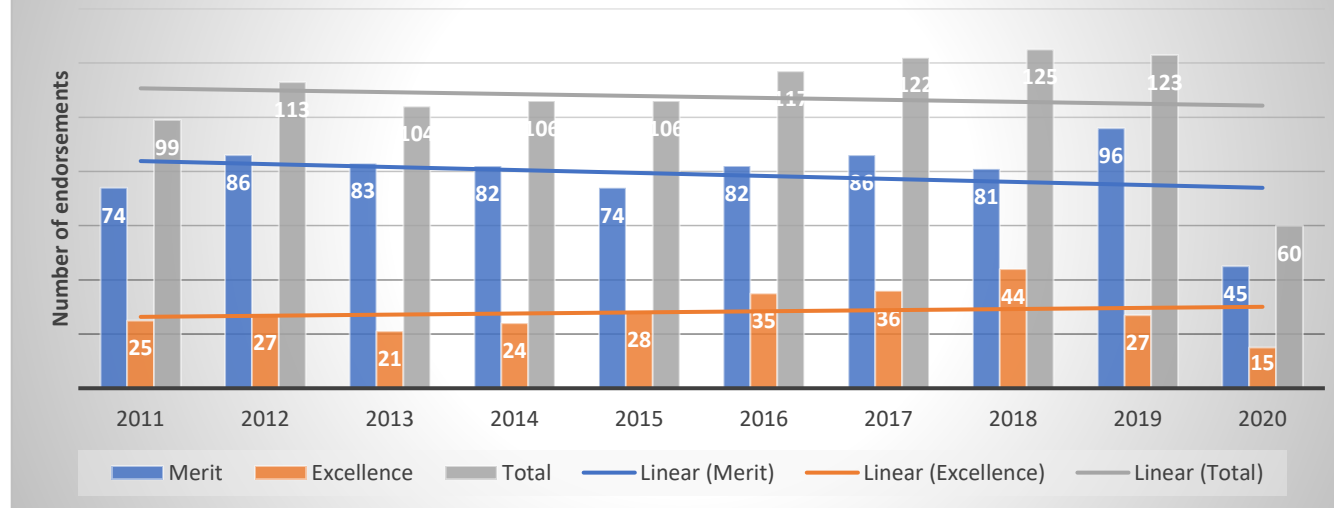
Analysis

A comparison with previous years is not valid as our students did not complete NCEA Level 1 in 2020. The 2020 data will form a baseline for reviewing the data from this point forward.

- Our male endorsement rates for 2020 in Level 2 and 3 indicate that males performed at just over 50% of the rate of females which was a positive increase from previous years.
- Our Level 1 male leaver rates for 2020 are slightly higher than in previous years continuing the positive trend (approx 95%).
- Our Level 2 male leaver rate in 2020 (88%) is trending positively from earlier years.
- Our Level 3 male leaver rate has shown a steady increase to 58% in 2020 which is the highest rate since we started collecting the data.

For the first time our males outperformed the females in the NCEA Level 3 pass rates of 81.1% for males and 78.9% for females. This is impressive when compared to 2019 where the pass rates were 77.3% for males and 90.6% for females.

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 endorsments, 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.

We will move to analysing certificate endorsement in the future as our focus for school awards and student engagement has been around measuring certificate endorsement rather than subject endorsement.

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	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. 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 Based on a school survey: • In 2014 74% of cohort surveyed, 85% were planning to gain UE • In 2015 72% of cohort surveyed, 82% were planning to gain UE • In 2016 72% of cohort surveyed, 83% were planning to gain UE • In 2017 100% cohort surveyed. 78% were planning to gain UE Result 2014: 74% Result 2015: 71% Result 2016: 73% Result 2017: 76%

Analysis for 2020						
Description		**Total**	**All**	**Male**	**Female**	
Total students surveyed:		259	-	118	141	
Amount **aiming** for UE (% of cohort)		197	76.1%	72.9%	78.7%	
Amount **eligible** to gain UE (% of cohort)		230	88.8%	84.7%	92.2%	
Proportion **aiming** for UE that are **eligible**		-	85.7%	86.0%	85.4%	
Actual number gaining UE (% wanting UE)		**164**	**83.2%**	**74.4%**	**85.6%**	
LHS UE pass rate **target**		162	82%	-	-	
LHS UE pass rate - those **aiming** & **gaining** UE			**83.2%**	**74.4%**	**85.6%**	**2020**
			81.4%	76.5%	85.0%	**2019**
			80.8%	77.3%	83.5%	**2018**

75.7%	-	-	**2017**
72.6%	-	-	**2016**
70.6%	-	-	**2015**
74.0%	-	-	**2014**

Notes:
1. 100% of Yr 13 students surveyed throughout the year and the end of Term 4.
2. Graduation Diploma introduced in 2016.
3. 2017 was the first year to have 100% of cohort surveyed by Linc teachers.
4. Approx. 80% of cohort surveyed in 2014 & 2015.
5. Target increased from 75% to 78% in 2018.
6. Target increased from 78% to 82% in 2019.
7. Gender data collated as of 2018.

Lincoln High School University Entrance Pass Rate
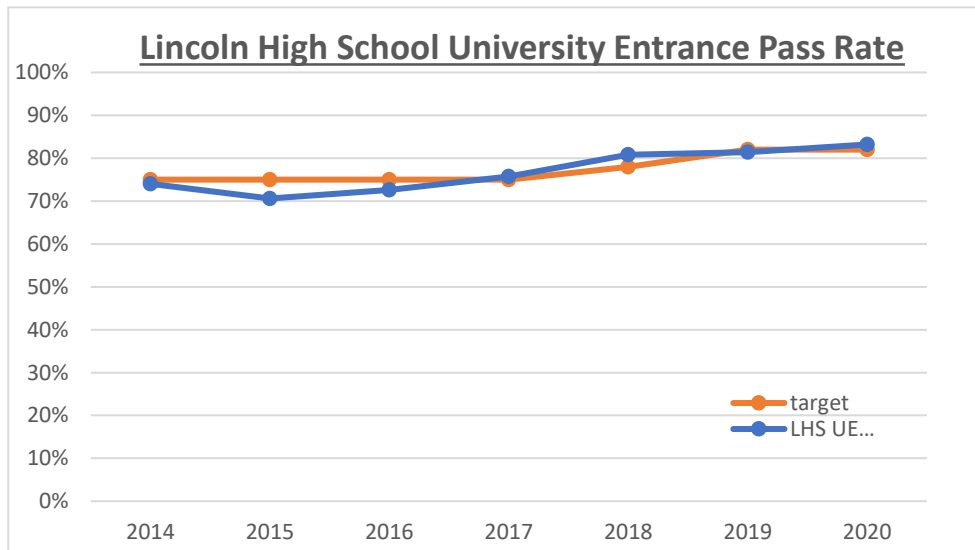
Analysis

- We exceeded the target of 82% with the highest success rate (83.2%) since recording this data. This could be in part due to the COVID-19 revised UE requirements. The accuracy of the data collection depends on a number of teachers collating data at the end of term 3. 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 74.5% of boys and 85.6% of girls that wanted to achieve UE did achieve it which is very similar to the result in 2019.

Evaluation and where to from here

- The challenge is to get more students to complete external examinations. Many will stop once they have Level 3 through internals. 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 2021 and develop more analysis of the difference between the male and female successes in UE as there is still a disparity between the two results at present.
- It is very evident that we started with a goal of 75% achievement in UE 5 years ago and have increased this to 82% in 2020 so the goal has enabled us to focus on improvement for our male learners.