

The Current System

NCEA is a system which has been implemented in New Zealand since 2002. While our system has its benefits it also has its fair share of problems. Our government bases education on the following principles; Wellbeing, Inclusion & Equity, Pathways, Coherence and Credibility! But, even these principles are either comprised or partially compromised by our current education system. I write this proposal for improvements on the New Zealand education system with the aim to positively impact these principles.



International Systems

Finland

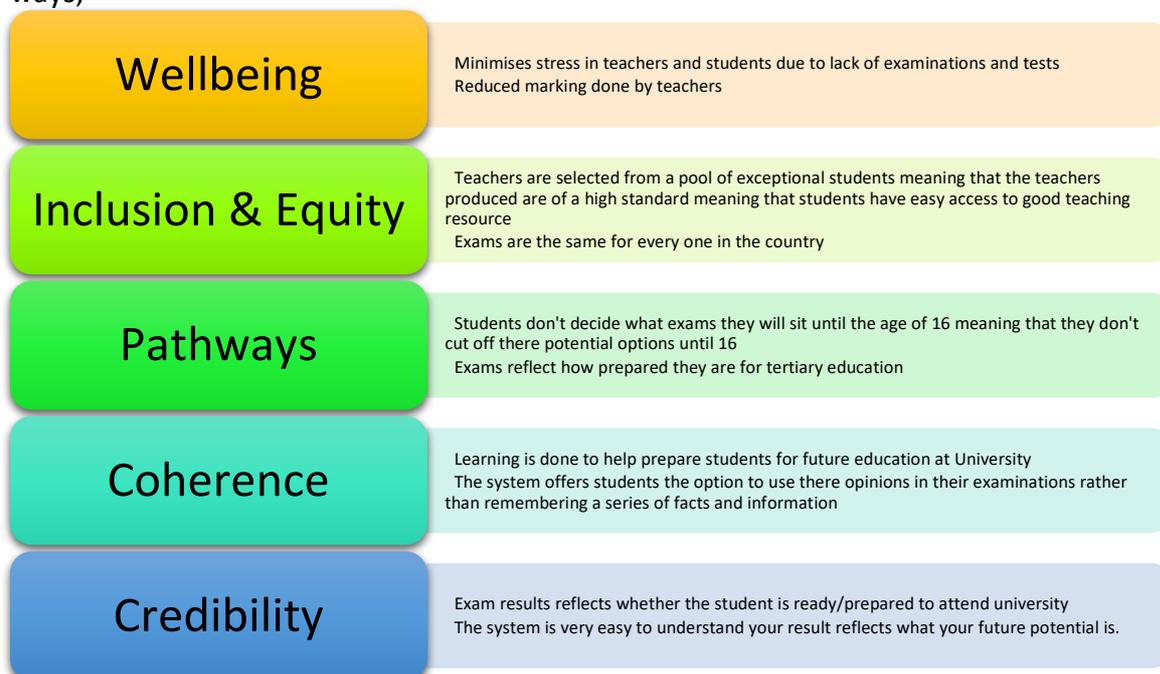
It's no secret that Finland has one of the best education systems in the world. There is minimal difference in intelligence levels and the stress placed on students is also minimal. We hear about their minimal homework and few hours at school but what else sets them apart? The Finnish Government and teachers focus more on development than academic development. I can infer that a student with more social development with peers is more likely to learn. This is because the environment would feel less pressured and be more like one long session with friends.

The Finnish Government hand selects students to become teachers from the top 10% of University Graduates. You don't decide to become a teacher you get chosen based on your own merits. The teaching aspect of the Finnish education system is exceptional. Teachers are paid around \$80,000 (NZD) per year and are given the same title as doctors and dentists, but that's not all. The government provides optional fully funded teaching workshops to

help teachers learn about more effective ways of teaching and also how to help students who are struggling

In terms of student welfare Finland has a great approach. Students have an average 2.5 hours of homework per week, compared to New Zealand's 4.2 hours per week average. Students in Finland get a 75-minute recess each day. The classroom environment for students is considerate. Class sizes average around 19 and in science classes the class size is limited to 16. If a student is struggling with learning instead of repeatedly trying the same technique teachers in Finland will set a specialised program for the student. This program is still integrated into the classroom environment. Not only that but students only have to do ONE period of exams at the age of 16, that's it and the Finnish Academic Results are exceptional.

The Finnish system improves well on the New Zealand education principles in the following ways;



Indonesia

While Indonesia isn't leading the education sector, they are definitely doing their homework in order to improve their system. The Indonesian government spends about 20% of its budgets on education. 95% of Indonesian students have literacy. The main reason which compelled me to focus on the education system of Indonesia was due to their relatively low suicide rates. New Zealand has a relatively high suicide rate and I thought I'd try to see if the Indonesian education system was set up in a way which would reduce suicide rates. However, through looking at their system I would say that their education system is not a contributing factor to their low suicide rates yet. From the information, I've read a lot Indonesian students suffer from depression and anxiety. So, there must be another influencing factor to their low suicide rates. However, I do believe that by improving the New Zealand education system we might be able to reduce our suicide rates, by improving the amount of pressure and stress caused by education.

Below is a diagram which compares features of the three education systems.



Actions

In order to improve our education system to help improve the experience of students, teachers, communities and the country. We need to improve how our education system fits into our education principles.

I propose that to help our education system fit around our core principles we need to act in the following ways.

Reduce the times in which assessments can be
Reduce the amount of marking that teachers have to do

Wellbeing



Internals will be the same at every school, the government will out source the writing and marking of internals. All internals will be sat at the same time in the same way
Examinations and internal work will allow students to be there own input into answers and still reward credit.

Inclusion and Equity



Minimal exams that determine what you can/can not do after High School
System needs to help students gain clear ideas on what they can do in the future

Pathways



More links between information
More time to develop ideas between units
System needs to be more enjoyable so students will find information more relevant

Coherence



The system needs to be easy to understand and express the capabilities of a NCEA student
The system needs to be easier for students, employees and families to understand

Credibility



Assessments

Internals are one of the biggest parts of NCEA which violate the education principles. I think internals are a great part of NCEA that allows students to gain credit before going into exams. Not everyone is good at exams so having internals allows people to still succeed. However, to help improve our education system we need to improve the integrity of internals.

All internals sat will be the same in every school. The internal and all resources needed for the internal will be written and provided by NZQA. The internals will be sat in the same way everywhere. Everyone will have the same length of time to complete the assessment in the same conditions. I believe to help reduce the length of time which students and teachers experience stress, there should be fixed times of the year for internal assessment. Internal standards will all be sat in the last two weeks of Terms 1 and 2. Some internals which are done out of class will carry on until the end of the first weeks of Terms 2 & 3. This means that students will only be stressed for a period of 6 weeks during a 40-week year due to internals. While this period will be full on its better than having constant stress from week 2 all the way till the end of exams. All internal marking will be out sourced by NZQA, to ensure that marking is done to the same standard. This will mean that students internal grades will be comparable. The changes made to internals will increase student and teacher wellbeing. There will also be no resubs. Resubs are great however, the integrity of how they are chosen is unfair. The replacement for resubs could be along the lines of if the marker thinks the

learner would be able to fix the minor mistake based on the student's internal content a holistic grade would be awarded. Resits of a standard would be possible, however, they can only be completed within the set times. This would mean if a student chose to resist a standard they might not be able to attempt other standards in their course. The decisions on resits would be decided by the learner and their school. Release dates of internals would be put in place and internals would then be returned to schools for students to review. They have the option to appeal if they doubt the quality of marking. All internal results and appeals will have to be released before the start of official examinations in November. This will allow students to have clear idea of the grades they need to achieve in their exams.

Currently NCEA has three levels NCEA Level 1, 2 and 3. While it's great having these stepping stones I think having three years of exams and internals is too much for teenagers. I propose that NCEA Level 1 is removed from the NCEA system means no formal assessment of Year 11 ability. Schools have the option to have exams for their "Level 1" students however this writing and marking will be done or sourced by the school independently. Grades will not be official or logged with NCEA. If the school chooses to give exams to their Year 11, they serve as an indication of their current performance. NCEA Level 2 and 3 would combine. Instead of producing 2 separate results each year they would combine and average each other out over the 2-year period. Your Year 12 results would be kept separate as Pre-University information.

Results

The system needs to be easier to understand and reflect better what a student's capabilities are. The Australian system works by using a formula to calculate a number. This number then indicates what courses a student can study at University. After using a series of NCEA results I've come up with a formula which will produce a percentage reflective of their performance.

$$N = \frac{\frac{\sum_{i=1}^n \text{Credits}_i \times \text{Grade}_i}{\sum_{i=1}^n \text{Credits}_i} + \frac{\sum_{i=1}^n \text{Standards}_i \times \text{Grade}_i}{\sum_{i=1}^n \text{Standards}_i}}{2}$$

This formula takes the percentage of credits passed that are offered in a course and adds the percentage of the grades achieved in a course. This formula assigns values to grades. N = 0, A = 1, M = 2, & E = 3. The maximum grade score is the number of standards you are sitting times by 3, because the most you will get is 3 points from every standard.

$$\% = \frac{(\text{G}_1 + \text{G}_2 + \text{G}_3 + \text{G}_4 \dots \dots + \text{G}_n)}{n}$$

This formula takes for subject averages and adds them up and divides them by the number of subjects which you are taking. This gives you a grade average across your studies.

Minimum Total Percentages would be assigned to tertiary courses depending on the course. There could also be percentage indication for subjects within certain tertiary courses. I understand that these formulas could be challenging to use and understand so I propose that a function was installed into the NZQA app and NZQA site which would calculate these numbers for the students. This function could also help give advice based on a student's

preferred career path. Learners would be able to select a range of University and Tertiary courses that they were interested in. It would be able to offer advise such as you need to achieve an Excellence on your next internal standard in English to increase your percentage to help reach your desired university requirements based on the percentage score students need to gain entry into their tertiary studies. These numbers will give a clear indication of how you are achieving and it will be easily comparable to other students

Students will still be required to achieve 10 literacy credits and 10 numeracy credits. These 20 credits are still included in the calculations however, the system will check that you have achieved these requirements. To have a Completed Percentage for a Subject you must attempt at least 1 internal and 1 external standard per subject. If they do not attempt an internal and an external in a subject the percentage they obtain is called an Uncompleted Subject Percentage.

Students Calculations also make room for 'having a bad day', this allows a student to drop one completed standard results per 30 credits attempted. This will be the standard with the lowest grade and fewest credits. This standard will be selected by the 'calculation'.

If a student decided to leave school early they would come out with a percentage no matter where they were in their education. However, depending on how far they had taken their subject would determine whether they had Complete Subject Percentages.

Below is a set of MADE UP NCEA results to show how the percentages are roughly calculated and the students grade average

Subject	N	A	M	E	Grade Average	Pass Rate	Subject Percentage
English	-	4, 4	4, 4, 4	6	$11/18 = 0.61$	1	80.5%
Maths	-	2, 4	4, 4	3, 5	$12/18 = 0.67$	1	83.3%
Science	5	4	4	3, 4	$9/15 = 0.6$	$15/20 = 0.75$	67.5%
Geography	3	5	3	3, 4, 5	$12/15 = 0.8$	$19/22 = 0.86$	83.0%
Visual Arts	4	3, 4	6	4	$7/12 = 0.58$	$17/21 = 0.81$	69.5%
Textiles	3, 3	4	3, 4, 4	4	$10/15 = 0.67$	$19/25 = 0.76$	71.3%
Total	18	34	44	41	0.581	0.867	75.9%

	Lower End	Mid Point	Upper End
Low Achieved	54.2%	58.3%	62.4%
High Achieved	62.5%	66.7%	70.7%
Low Merit	70.8%	75%	79.1%
High Merit	79.2%	83.3	87.4%
Low Excellence	87.5%	91.7	95.8%
High Excellence	95.9%	100%	

Above is a chart which shows rough grades boundaries based on your percentage

Improvements and Impacts

I want the system to give direct and effective positive impacts to the people using the system. So below is a chart that shows some of the ways which the changes I have proposed will affect the different groups within the system.



This definitely a completed solution to NCEA, however, I think by sharing ideas with other students New Zealand will be able to come to a sensible outcome which encompasses a wide variety of students. No one system is going to fit everyone but it's about finding a system which will fit the majority of students.