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**Newlands College**

**Principal's Sabbatical**

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*An investigation into how the changes to NCEA might affect students in higher  
decile, state, co-educational schools*

## Acknowledgements

After nine years of Principalship, I was delighted to have the opportunity to be able to step back from Newlands College, so that I could reflect on the progress that we had made and to consider the way forward. In order to do this the support of a number of people was required and I wish to acknowledge them.

- 1 The Newlands College board of trustees and especially the then chairperson, Mr Peter Knipping, for supporting my application.
- 2 Mr David Pegram, deputy principal, for being acting principal in my absence and doing an exemplary job in having to deal with some difficult issues.
- 3 The rest of the senior leadership team at Newlands College – Deb Mills, James Rasmussen, and Deb King who stepped up so ably.
- 4 My colleagues at the schools I visited. All were extremely open, welcoming and very generous with their time.
- 5 The Ministry of Education for the funding of this sabbatical.

## Introduction

The National Certificate of Education Achievement (NCEA) was introduced into New Zealand schools back in 2002. Since then it has undergone a number of adjustments e.g. endorsements, scholarship to sit alongside the qualification and significant financial rewards for the top scholars. Another trend that has emerged is that nationally the percentage of students gaining Level 1 and Level 2 certificates has increased significantly. In 2004 in Decile 1-3 schools, 44.8 % of students achieved the certificate; by 2009 this had moved up to 56.8%. Similar trends were experienced across all other deciles and nationally the shift showed 64.9% successful in 2004 move upwards to 71.7% in 2009 (data is based on participation and can be found at <https://secure.nzqa.govt.nz/for-providers/stats/provider-selected-crystalreport.do>)

Currently NCEA is undertaking its most significant change, the Standards Review. Approved by Cabinet in May 2007, this review aims to, "support the aligning of Standards with the New Zealand Curriculum 2007 and addressing issues of Standards duplication, credit parity, consistency, fairness and coherence."  
[www.tki.org.nz/e/community/ncea/pdf/litnum-ncea-design.pdf](http://www.tki.org.nz/e/community/ncea/pdf/litnum-ncea-design.pdf)






One of the difficulties that have arisen in NCEA is the tension that exists between accessibility and creditability. Achievement Standards that sit on the National Curriculum begin at Level 6. Unit Standards, often provided by Industry Training Organisations (ITOs) sit outside the curriculum and the level of difficulty is variable and in some cases considered much lower than the Level 6 of the Achievement Standards. The tension that exists is that on one hand it is desirable for all learners

to engage with their learning and establish a record of it, while on the other hand the qualification must be perceived by the community as being credible, robust and transparent (Standards Review Stage 4 P.2).

As a result most Unit Standards that were written in the 1990s that reflect the “notional” curriculum levels 4/5 will now no longer be available. These standards exist in Mathematics, Science and a range of other subjects. Duplicated standards will also be removed, however those owned by ITOs that are not curriculum derived can still contribute credits towards the NCEA qualification. These include standards from ESOL, Maori, core skills and business management.

### *Literacy and Numeracy*

Gaining Literacy and Numeracy is a compulsory part of NCEA Level 1. Currently this can be achieved by gaining specific Achievement or Unit Standards. However changes to this model are now being introduced with new purpose built literacy and numeracy Standards (worth up to 20 credits) aligned to the Adult Literacy and Life Skills (ALL) levels and at “notional” curriculum level 4/5. These Standards would be:

-  internally assessed;
-  complement the National Standards for years 1-8;
-  align with the Adult Literacy and Life Skills (ALL) levels and;
-  meet minimum literacy and numeracy requirements for NCEA; and
-  promote ongoing learning by providing a bridge to curriculum subjects at NCEA Level 1.

These Standards would be written as Unit Standards as they would be assessing functional literacy and numeracy skills rather than the curriculum-derived skills associated with English, Te Reo Māori and mathematics. They would not necessarily be designed for English or mathematics programmes. Rather, they would be generic and outcomes based enabling schools to use relevant, challenging and cross-disciplinary contexts with them. (NZQA Standards Review Stage 4 P.4-5)

It must also be noted that the literacy and numeracy requirements can now also be achieved through other subjects such as biology, accounting, history, geography, and science and this is a significant departure from the past.

Implementation of these changes are required by 2012, 2011 being a transition year.

## **Research Purpose**

The changes to NCEA particularly to Literacy and Numeracy pose many questions for schools. Newlands College is no different. Newlands College is a well performed school at level 1 and 2 where most of the impact will be felt. Like the schools I visited it was felt that the changes would have little to no impact on our more able students. However our College like the other schools also has the bottom 20% or ‘the tail’ as identified by the PISA reports (2003, 2006) and Hattie (2003). Constructing courses particularly ones that no longer have additional Unit Standards

that could be taught at level 1 for literacy and numeracy as well as no unit standards for science meant that these students would be facing a challenging time.

As a result of this I was interested to know how other schools with similar profiles to Newlands College were approaching the literacy and numeracy requirements for Year 11 students, and what their approach to science would be now that Unit Standards were no longer available. As a second part of my research I was also interested in the range of unit standard courses that they offered from ITOs that they used to engage their students.

The last part of my research to a lesser extent focused on disengaged students. As an observation the students who tend to be disengaged have come through pathways where their courses have a strong Unit Standard component. Given the changes to literacy and numeracy these students will now have even less opportunities to enjoy success and I was interested to know how other schools planned to address this.

## Methodology

Given the time available and what I hoped to achieve I chose to visit ten schools with a similar profile to our own. Six of these schools were located in Wellington and a further four were in Waikato. Their profiles are below:

School Profiles	Decile	Roll	Literacy*	Numeracy*	Level 1**	Level 2**
Newlands College	9	1002	87.7	90.5	82.4	78.7
Tawa College	9	1328	88.9	90.9	79.6	83.8
Onslow College	10	1132	91.3	97.0	84.6	85.3
Paraparaumu College	8	1619	93.3	90.4	75.6	73.6
Kapiti College	8	1040	83	92.1	74.3	79.9
Hutt Valley High School	8	1040	84.2	88.5	72.3	69.3
Upper Hutt College	7	1258	90.6	92	62.9	68.4
Matamata College	6	903	79.3	79.9	68.8	89.8
Morrinsville College	6	692	76.6	83.8	59.2	75.2
Cambridge High School	9	1240	90.3	93.2	88	89.1
Hillcrest High School	8	1619	90.2	91.1	74.6	72.5
National	Decile 4-7		81.1	88	69.7	73.3
National	Decile 8- 10		83.8	87.7	81.3	83.9

## Notes

Deciles and Roll numbers were taken from the school's most recent ERO report.

\* Shows the percentages of Year 11 students on July 1 school rolls achieving the literacy and numeracy requirements for NCEA Level 1 for 2009. (Participation data not available)

\*\* Reports show percentages participating candidates achieving NCEA Levels 1 and 2, broken down by secondary year levels 11 and 12 for 2009. Participating candidates are those who have entered sufficient credits to achieve a NQF-based qualification by the end of a given year

The purpose of this table is to demonstrate the similarity between the schools. I am always cautious about comparing school data as there are so many variables, e.g. percentage of ESOL students in the sample, percentage of ORRS funded students with learning difficulties in the sample (Newlands has 41 ORRS, Hillcrest 37), percentage of students that left after July 1<sup>st</sup>, and that Decile 8-10 schools include private and integrated schools which are distinctly different from state schools as they have selective entry rather than representing a particular local community.

Once the selection was made a visit was made to each school and I discussed with the Principal my areas of interest as outlined above. I then synthesised the data and my findings are contained within this report. The methodology would be best described as qualitative.

## **Findings Part One**

The introduction of the changes will be transitioned over 2011 with compulsory implementation in 2012. The schools I visited were at different stages and applying different approaches. Some had done very little planning with the view of learning from other schools' experiences, others had partial plans e.g. they were ready with literacy and not numeracy or visa-versa, others were ready for full implementation, while others were ready for full implementation but the finer details had not been sorted.

The schools offered five or six subjects at Year 11. Those that offered five did not make science compulsory although many students chose to take it. In some cases e.g. Kapiti College, the bundling of literacy and numeracy together into one subject could allow students to take an extra subject that was not previously available to them.

The main difficulties that the schools faced were that the option information had to be ready for the students (August) so that they could be advised of what the course would involve. There were staffing implications; e.g. if it was no longer viable to run compulsory science since unit standards would no longer be available this would decrease the hours of science taught.

### Level 1 Literacy

There is a multitude of options being considered or planned for to enable students to gain Level 1 literacy. In all schools, by default some form of banding occurs. This is the result of students taking English Achievement Standards (AS), English Unit Standards (US), and sometimes extension English which could involve studying AS to greater depth or having some Level 2 AS in the course. In some cases some of the AS had been achieved by the students in Year 10.

In all schools English with Achievement Standards would remain in place for those who were capable. Extension English classes would also remain in place. The greatest difference in approach occurs for students who are less able i.e. Level 3/4 on the National Curriculum and a range of options were offered. These include:

- Offering a year long course made up of the 10 literacy standards with one or two English AS also included. This could be something like the speech and the static image.
- In three of the schools there was also a debate that English was not necessarily literacy and therefore the department did not hold the responsibility for ensuring that the students gained literacy. These schools chose to provide students with a matrix of how they would achieve literacy from their other AS courses and they would be tracked throughout the year. At Tawa College those students who were not succeeding by Term 4 using this method would then be brought together as a class and taught (by someone as yet unspecified) the literacy US.
- As an extension of the above model this would be combined with two types of English AS courses. One would be a mix of internal and external standards totalling 22 credits; the other course for less able students would be a 16 credit internal AS course.
- Kapiti College was considering something a bit different. The plan was for less able to students to take literacy for the first half of the year and numeracy for the second half (or visa-versa). As part of this course would be an application theme, e.g. Foods or Technology this would give the literacy and numeracy a context.

### Level 1 Numeracy

Discussions with the schools regarding the numeracy requirements and the standards alignment suggest that there is considerable change occurring in these areas. I also sensed that a number of schools have concerns about the practicality and accessibility of the standards. One of the concerns raised was the inability to scaffold questions which often left students unsure of how they were meant to proceed.

In Wellington the schools indicated that almost by default the Heads of Mathematics departments were working much more closely than in the past as they sought some form of consensus and resolutions as to what was the best way forward. Generally

speaking in the schools visited, the introduction of the numeracy standards was being left until 2012.

Some of the proposed models although not confirmed include:

- Offering numeracy US (10 credits) plus one or two AS. Which AS standards was unclear as they all appeared too difficult for less able students
- Having banded courses with more able students taking a heavier weighting of calculus, less able students a heavier weighting of statistics
- Numeracy to be gained through other standards, although these standards would quite possibly not appeal to less able students e.g. Physics and Chemistry
- The Kapiti College model as described above.

### Level 1 Science

In all the schools a range of science classes were offered for different ability students. Those students who were at Level 4/5+ by the end of Year 10 tended to take AS courses. Those who were not at this level had US courses available. Schools often had additional courses available usually made up of AS such as Physical Science, a mix of chemistry and physics.

The standards alignment however has removed the US from these courses. This creates a real difficulty for schools if they wish to provide science for students who are at less than Level 4 by the end of Year 10. Most schools will retain their US courses for at least another year. Schools are considering a range of approaches:

- Schools that offer five subjects at level 1 tend not to have science compulsory. As a result students tend not to choose science as one of their subjects.
- Schools that offer six subjects at Level 1 have tended to have made science compulsory. In some cases this has been removed and students no longer have to select this subject. In other cases students are strongly encouraged to take science but are able to gain dispensation not to.
- There has been work done by some schools to see if US courses can be created by using standards from ITOs such as horticulture and agriculture. The consensus was that while US are available that these too, tended to be Level 6 on the curriculum and difficult for students to access. This solution also raised an issue around staffing, resourcing and the provision of space.

It seems that the less than ideal solution being offered is to provide a second AS course with less credits so that the students can have more time to engage with its contents. Also a Level 1 biology course is being considered by some schools.

There is another issue to flow out of this problem which has yet to be addressed. When the students who have not taken the full AS Level 1 science courses want to enter L2 and wish to continue with science there are no options available for them other than attempt the Level 1 AS course. This is a deterrent as they cannot gain credits for their Level 2 certificate.

## Level 2 English and Mathematics

With the pending changes to Level 1, Level 2 changes are scheduled for 2012. At this stage all the schools that I spoke to have not addressed the future of these courses in any great detail.

However they are conscious of a number of issues that are going to arise. Pathways for students particularly those in the past who took level 1 US courses are no longer going to be available as Level 2 (non-ITO) US disappear off the framework.

Typically a student that achieved Level 1 English through a course that contained US would be able to pick up a course the following year that contained some Level 2 US and probably some Level 1 AS. This option will no longer be available. The feeling from the schools is that the new literacy US will in no way be a suitable pre-requisite for Level 2.

To compound this problem, certain Level 2 US have been accepted by the Universities as part of the University Entrance Literacy requirement.

"The literacy requirement for university entrance can be fulfilled in either English **or** te reo Maori and te reo Rangatira, but not a combination of both:

- 4 credits at Level 2 or higher are required in Reading
- 4 credits at Level 2 or higher are required in Writing."

[www.nzqa.govt.nz/qualifications-standards/](http://www.nzqa.govt.nz/qualifications-standards/)

As yet the Universities have not given any indication as to what standards they will be accepting for University Entrance so it is hard for schools to plan their courses.

Mathematics faces a similar problem in that it will also lose its Level 2 Unit Standards that are linked to the curriculum. Schools are looking at various solutions such as making AS courses with a strong Calculus bias for more able students, with a second course focusing on statistics and modelling for less able students. Mathematics teachers, like their English counterparts also feel that the 10 numeracy standards is not an appropriate pre-requisite to Level 2 work.

## **Findings Part Two**

Like many other schools Newlands College tries very hard to engage its students. Senior students, particularly in Years 12 and 13 seek quite different pathways. There are those which are seeking NCEA Level 3 with University Entrance, those who might be good at one or two subjects and weak with the rest of their programme and those which are disengaged. Newlands College experience has identified within its disengaged students, groups that do gain credits in a range of subjects but still lack focus and motivation.

Given the changes to Literacy, Numeracy and the removal of US from the National Curriculum subjects the range of options for these students has diminished. In the



past students may well have gained 30-40 credits towards NCEA through this pathway. However with the pending changes this will be capped at 20, meaning these students will find it significantly more difficult to achieve the qualification.

As part of my research I was also interested in what other schools were offering in their senior curriculum to engage students who lacked focus and motivation. Denis Pyatt (2009) during his sabbatical has undertaken comprehensive research on this, however the schools he visited were not a good fit with Newlands College

Newlands College offers a range of Unit Standard courses at Levels 2/3 such as Retailing, Tourism, Furniture and Sport. Gateway is offered to Year 13 students only although this will change in 2011. STAR courses are on offer but the criterion for students being eligible to take these has been at times questionable. It is fair to say that Newlands College has primarily offered Achievement Standard courses with courses consisting solely of Unit Standards not strongly featured.

The schools that I visited all offer courses under a variety of names that usually start at Year 11 which cater for students that have difficulty engaging with traditional academic programmes. Such courses might be called, Transition, Employment Skills, Life Skills, Financial Life Skills, or Community Skills. The content of such courses though is fairly consistent with units of work being based on things such as: Employment Rights and Responsibilities, Financial Literacy, Writing a CV, Keyboarding Skills, Personal Grooming, First Aid and the like. These are based on Unit Standards.

These courses will often run into Year 12 with students being placed into transition courses. The focus is much more on helping students make the transition from secondary school into the work force or tertiary education through programmes such as Youth Guarantee and Trades Academies.

Gateway Courses are also part of this process. Over half the schools I visited had some students in Gateway during Year 11; however Year 12 had become the main target group. The goal for these students was to gain experience in the work place and secure employment by the time the year had finished. Gateway was still offered in Year 13 although the assumption was that the demand for it would have greatly diminished.

Running alongside these courses there are a plethora of ITO Unit Standard courses. Along with the ones offered by Newlands College some other examples include: Hospitality and Catering, Metal Work and Woodwork (as opposed to Technology), Fashion, Fitec, Music Performance, SPRIFTO, Music Performance, Pasifika Art, Alternative Art, Computing with Programming, Computing with Applications, Business Studies and Barista Courses. The ability to offer such courses varies widely. One Principal felt that he would love to offer Automotive Engineering given the young men in his community penchant for cars but the set up costs were prohibitive. Along with costs, staffing and resourcing were also issues as well as achieving viable numbers.

One approach that was being offered was to compact such courses into semesters so that students could try a range of alternatives. Three of the schools had

curriculum reviews about to begin in the next three years and a semester type timetable was definitely a consideration.

In three of the schools I did encounter a frustration from the Principals that they felt that their staff did not think like a high decile school and lowered their expectations. By this I believe they felt that a disproportionate amount of time, effort, energy and resources were committed to students who were not engaging with school (The law of diminishing returns?). From a philosophical viewpoint these principals were suggesting that while some targeted courses should be made available their staff should have higher expectations of their students and that they should be encouraged to achieve at level 6 on the curriculum.

## **Conclusions**

NCEA was introduced as the national qualification system in 2002. Starting with Level 1, Levels 2 and 3 were introduced in subsequent years. During this time adjustments have been made, and now the changes to the literacy and numeracy requirements along with the standards alignment are perhaps the greatest.

The rationale behind the changes is the need to manage the tension that exists between accessibility to the qualification and its credibility. It can be argued that courses of study that comprise primarily of unit standards, especially those provided from sources outside the national curriculum enable students to gain qualifications that are less than Level 6+ on the curriculum.

The rationalisation that is taking place will provide challenges for schools particularly as they address the needs of the "20% tail" identified by the PISA results. The schools I visited are devising different approaches to meet these students' needs, and the evidence gained suggests that there is no one best way.

The schools all have concerns about disengaged students. They have looked to a variety of courses, usually provided by ITOs to meet their needs. Some schools believe that a philosophical shift is needed and higher expectations are required. However it is evident that the pool of accessible credits particularly level 1 will diminish for these students. My "gut feeling" is that success rates in national examinations will drop, at least initially and this of course will provide yet more script for the media.

## References

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- 6 <https://secure.nzqa.govt.nz/for-providers/schools/statistics/index.do>
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