

## #3 How does NCEA’s standards-based system challenge, motivate and reward students?

### Introduction

NCEA is a standards-based system. Assessment standards describe what students have to achieve to gain credits.

Separate standards are used to assess different areas of knowledge and skills so students get a separate result for each aspect of each subject. Their results describe their strengths and weaknesses in detail.

For example, in 2011 there are sixteen achievement standards in Level 1 Mathematics (view [Level 1 Mathematics standards](#)). This includes algebra, geometry, measurement, number, probability statistics and trigonometry. A student who, for example, is a high achiever in algebra and statistics but just average in trigonometry will get results that reflect that mix.

Each student leaves school with a unique [Record of Achievement](#) - a full profile of their achievements, and potentially an important part of their Curriculum Vitae.

### Standards-based grading system

In achievement standards students can gain one of four grades – Not Achieved, Achievement, Achievement with Merit and Achievement with Excellence (Merit and Excellence grades are not available for most unit standards.)

Each achievement standard describes what students have to do to receive Achievement, Merit or Excellence. The standard, or the level of work required, is demonstrated in materials provided by NZQA, so all students, parents and teachers can see what is required to succeed in NCEA assessments.

Merit and Excellence require a significant step up from what is needed for an Achievement grade.

### The learning experience

*“Right across the academic spectrum we find standards to be more motivating, more rewarding and capable of producing more achievement than School Certificate, Sixth Form Certificate or Bursary did. We do find ourselves teaching less content partly because there is more assessment but mainly because we are teaching with more precision and we are teaching skills to a greater depth and to a greater degree of usefulness than before. NCEA has encouraged the development of a more significant and more explicit metacognitive approach to teaching. The greater range of content material means that we can and do tailor courses more closely to student need. This in combination with the above two factors means more focussed challenges for students and thus better motivation.”*

John Grant, Principal, Kaipara College

## Standards-based grading system CONT.

The following is an achievement standard for Level 2 Biology that involves describing biological concepts and processes that relate to genetic variation and change. Criteria for each grade are given below:

- For Achievement – Describe biological concepts and processes that relate to genetic variation and change.
- For Achievement with Merit – Explain biological concepts and processes that relate to genetic variation and change.
- For Achievement with Excellence – Discuss biological concepts and processes that relate to genetic variation and change.

The achievement standard further defines the terms used to indicate the level of work required:

- *Describe* requires the student to define, give characteristics of, or an account of.
- *Explain* requires the student to provide a reason as to how or why something occurs.
- *Discuss* requires the student to show understanding by linking biological ideas. It may involve justifying, relating, evaluating, comparing and contrasting, or analysing.

(View [achievement standard](#) on NZQA website)

Only those students who meet the criteria for Merit or Excellence Level get those grades. Therefore proportions gaining Merit and Excellence grades change a little from year to year. In 2010:

- Fewer than a quarter of all results were Merit grades (23.24%).
- About one in seven were Excellence grades (13.8%).

This sets NCEA apart from qualifications systems that use a predetermined distribution of grades – where a limited number of high grades is allocated to candidates who do better than the rest, regardless of the standard of their work. In these systems, grades carry little information about the actual skills and knowledge achieved by students.

## Certificate endorsement

Certificate endorsements were introduced in 2007 to encourage students to achieve as many Merit and Excellence results as they can. Certificate endorsements can be gained at Levels 1, 2 and 3. There are two grades of endorsement:

NCEA with Excellence – a completed NCEA qualification that includes 50 credits at Excellence level.

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## Comments from the sector

*“In a standards-based system the credit you get for your effort depends on your ability to demonstrate what you can achieve. It’s not about attendance or what else you do around the school or how you get on with the teacher. The national standards and the moderation system mean results reflect at least similar minimum levels of ability, regardless of which school you go to.”*

Professor Jeff Smith, University of Otago  
Formerly Associate Dean of the Graduate School of Education, Rutgers University, New Jersey, USA

*“(Parents) were positive about their understanding that the NCEA offered individual students opportunity to demonstrate their own strengths rather than being marked in comparison to other students.”*

*“The research confirmed that students at all levels value gaining Merit and Excellence grades. Students who are generally more motivated at school do strive for Merit and Excellence grades.”*

Meyer, Weir, McClure, Walkey, McKenzie, 2009.  
Motivation and Achievement at Secondary School.

The relationship between NCEA design and student motivation and achievement Three-Year Follow-Up.  
Victoria University of Wellington

## Certificate Endorsement CONT.

NCEA with Merit - a completed NCEA qualification that includes 50 credits at Merit or better (can be a mix of Merit and Excellence).

A certificate endorsement appears in a student's [Record of Achievement](#) and [School Results Summary](#), and indicates overall commitment and success, generally across a full school year or more. There is no 'cap' on the number of students who can get Excellence or Merit certificate endorsements, so the proportion of students who gain endorsements can change over the years.

In 2007 and 2008 the percentage of certificates gaining endorsements was roughly stable. In 2009, there was a slight increase in the percentage of students gaining endorsed certificates:

	Merit endorsements (2009)	Excellence endorsements (2009)
Level 1	23%	6%
Level 2	17%	5%
Level 3	21%	5%

In 2010, the picture changed significantly. A higher percentage of students at all levels gained endorsements, especially at Levels 1 and 2:

	Merit endorsements (2010)	Excellence endorsements (2010)
Level 1	29%	9%
Level 2	20%	7%
Level 3	23%	6%

It appears that schools are making the most of the incentive offered by certificate endorsements, and students see them as worth striving for.

Researchers from Victoria University of Wellington interviewed students and parents after certificate endorsements had been in place for a year:

“Both students and parents were overwhelmingly supportive of the introduction of the certificate endorsements for Merit and Excellence... regardless of gender, school decile, or ethnicity.”

“ (Students) stressed that whereas previously there was less incentive to continue working past the 80 credits needed for each level, the endorsements motivated them to continue trying for credits towards an endorsement.”

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## Comments from the sector

“We find that the students who go on and get the Excellences, and with the system where you can now have Excellence Endorsed Certificates, there's a major, major push from those students to really optimise their learning. And when we then follow those students who get Excellence in the NCEA into the university system they still do the very best in their tertiary qualifications.”

Professor John Hattie, University of Auckland

## Certificate Endorsement CONT.

“Students felt that employers had an understanding of the NCEA and also valued the endorsements, so that having an endorsement for Merit or Excellence would enhance one’s employment credentials as well and may make the difference between getting or not getting a particular job.”

Some students had already gained certificate endorsements.

“Of those attaining NCEA Level 1 with Merit, 80% had said the endorsements mattered to them mostly or definitely, and of those attaining endorsement with Excellence an overwhelming 98% said they mattered either mostly or definitely.”

Meyer, Weir, McClure, Walkey, McKenzie. 2009. Motivation and Achievement at Secondary School. The relationship between NCEA design and student motivation and achievement: A Three-Year Follow-Up. Victoria University of Wellington.

## Course endorsement

Course endorsement was introduced in 2011 to recognise exceptional achievement in an individual course.

To gain a course endorsement:

- Students must gain 14 or more credits at Merit and/or Excellence within a school course.
- There must be a mix of internally and externally assessed credits – at least 3 credits from each (except in Physical Education, Religious Studies and Level 3 Visual Arts where there is no external assessment).

Course endorsements will be shown on students’ Record of Achievement and School Results Summary, and will indicate consistently high levels of performance in a particular area of learning.

Researchers from Victoria University of Wellington interviewed students and parents when course endorsements were about to be introduced:

“Students supported the development of subject (course) endorsements, feeling that this would be highly motivating to both those who otherwise would not get the overall Certificate with an endorsement as well as those who could strive for Excellence in gaining subject endorsements as well as the certificate endorsement.”

Meyer, Weir, McClure, Walkey & McKenzie. 2009. Motivation and Achievement at Secondary School. The relationship between NCEA design and student motivation and achievement: A Three-Year Follow-Up. Victoria University of Wellington.

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## The learning experience

“What should be much more vigorously communicated is that an NCEA endorsement at Excellence at level 3 is significantly more exclusive than a presentation of grade As at A level, for example.”

“Our highest achieving students are able to demonstrate their capabilities in NCEA more clearly than in other systems. If you are a top NCEA achiever, you are a top calibre student on the world stage without question.”

Simon Leese, Headmaster, Christ’s College

“The more able students value the challenge [of certificate endorsement]. Working to achieve a Certificate endorsement is one of the goals many of the more able students set themselves through the year.”

John Grant, Principal, Kaipara College

“Students are becoming increasingly aware of the importance of certificate endorsement especially at Year 12 and 13. For example, a Year 12 student can obtain Level 2 Excellence Endorsement that can lead to university scholarships.”

Principal Nominee, Lincoln High School

## Comments from the sector

The introduction of course endorsement has encouraged some schools to create innovative courses to enhance student learning.

*“Alfriston College, Manurewa, has developed combined subject courses. These include courses such as ‘People, Places and Events’, a combination of Level 1 History, Geography and Social Studies and ‘Environmental Sustainability’ which is an integrated course operating as a combined Level 2 and 3 subject.*

*Deputy Principal, Steve Saville says the school has intentionally named the courses to reflect what is actually being taught. These courses help students make links between and within their subjects and they are relevant to their world.*

*Mr Saville expects course endorsement to enhance the school’s non-traditional educational features. He says the new endorsement will encourage their Merit and Excellence student group to raise their own expectations of achievement.”*

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## Tertiary Institutions and employers use NCEA results

Tertiary institutions and employers find the detailed results useful in selecting school leavers for tertiary programmes and jobs.

Universities use NCEA’s detailed results to help them select applicants for restricted degree programmes. Some courses might require a Merit or Excellence result in a specific achievement standard. Some universities have also developed ways to rank students on the basis of their NCEA results. Soon universities will be able to look at course endorsements in relevant subject areas.

At Auckland University, a minimum of 18 credits in each of Mathematics with Calculus and Physics is needed for entry to Bachelor of Engineering (Honours) at University of Auckland. Students are then selected on the basis of their rank score generated from NCEA results.

Employers use the [Record of Achievement](#) to see whether an applicant has the mix of skills and knowledge needed for a role. They also get some idea of how persistent and committed the applicant was at school.

## Comments from the sector

*“Researchers at the University of Auckland studied the performance of first-year university students. The study found that if NCEA candidates aspire to succeed in university, they could be better off aiming at higher achievement (Merit and Excellence grades) even if that meant gaining fewer credits.”*

## The learning experience

*“The certificate and course endorsements have been an important development for NCEA as they become significant motivators for more able students. Often the more able students thrive on being able to set themselves goals to achieve and the endorsements provide an important target to strive for.”*

Michael Williams, Principal, Pakuranga College

*“I am amazed by how many students in my Year 13 class are aiming for course endorsement. They are really focussed. I am very impressed.”*

Year 13 teacher, Lincoln High School

*“With the introduction of course endorsement, students have become more focussed on studying harder in greater depth to achieve high quality results. This is leading to higher levels of attainment for many students.”*

Principal Nominee, Hamilton Girls High School

Shulruf, Hattie and Tumen. 2008. The predictability of enrolment and first-year university results from secondary school performance: the New Zealand National Certificate of Educational Achievement. Victoria University of Wellington