



# **Out-of-level achievement:**

The case for acceleration  
in New Zealand  
secondary schools

# Out-of-level achievement: The case for acceleration in New Zealand secondary schools

*Jennifer M. Horsley*

## Introduction

The Johns Hopkins University Center for Talented Youth (CTY) has earned an international reputation through the model it has developed for working with students of high mathematical and/or verbal ability (Touron, Touron & Silvero, 2005). Since 1979, the institute has increased the number of provisions it offers to meet the needs of students who demonstrate high academic ability on out-of-level standardised testing (Barnett, Albert & Brody, 2005). Through innovative practice, research and evaluation of the provisions offered, this center has identified a number of significant findings that can be argued to have implications both for New Zealand students of high ability, and for those who aim to engender high academic success in New Zealand's most able students. This article considers just one of these provisions, acceleration, and its applicability for high ability students in the New Zealand context and school setting.

My time at CTY has altered the way I view provisions for students who demonstrate high academic ability. These views are the result of time spent working beside those who, over the past thirty years, have developed a model which has been designed to meet the academic needs of this group of students. This paper describes one practice that I believe New Zealand schools and teachers should consider adopting to enable them to meet the needs of their most able students. In addition, this paper identifies provisions that are already in place for some students who have demonstrated high academic ability on New Zealand assessment, are Māori, and are attending low-decile schools.

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Compared with CTY and with educational provisions for gifted and talented students in most of the United States, New Zealand's foray into programming for high ability students can be considered to be fairly recent. In 1997, the Ministry of Education established a national advisory group for gifted education in New Zealand. The Ministry subsequently produced a handbook for schools which Howard Fancy, then Secretary for Education, described as aiming to '...support schools and teachers in assisting gifted and talented students to reach their full potential academically, emotionally, and socially...' (Ministry of Education, 2000: 1). The handbook, he said, discussed a range of principles and practices pertaining to the education of gifted and talented students, and supported school practice by presenting models on which schools could base their own programmes to meet the needs of their students. The Ministry also increased funding to the national advisory service, created a contestable funding pool to support talent development initiatives (TDI) and produced a handbook for parents, in addition to making it a requirement that from 2006, all New Zealand state and state integrated schools were required to demonstrate how they were meeting the needs of their gifted and talented learners.

More recently, the government announced that funding for gifted advisory work was ended from June 2009. In a rather unexpected statement – given the previous level of support for gifted education – the Minister stated that: 'In 2010 there will be no further professional development or national coordination services purchased by the Ministry in the area of gifted and talented education.'

## Out-of-level testing

The success of the academic provisions which Julian Stanley, the founder of CTY, made for one boy ultimately led to the formation of an institute that now annually serves the needs of approximately 80,000 students who have demonstrated high academic ability on standardised testing (Barnett et al., 2005). The breadth of tiered programs offered includes admission to the Study of Exceptional Talent (SET) for the very top scoring students; participation in CTY summer programmes; Center for Academic Achievement (CAA) summer programmes; on-line

programmes; and family academic programmes. In addition, the center offers spatial testing, counselling, and assistive funding for students from low-socioeconomic backgrounds.

Admission to CTY programmes is gauged through student performance in out-of-level testing on standardised tests. Students are assessed on tests that are usually administered to students several grades ahead. If they are successful – that is, if they perform in standardised testing (SAT, SCAT or ACT) at or above the 95th percentile – students are able to access CTY courses and materials which research has shown to engender high-academic learning. These courses are often accelerated, with students participating in subjects beyond those taken by their ‘regular’ class peers. CTY data show that many schools are accepting student completion of these Advanced Placement (AP ) courses (their own AP courses, or those offered through CTY) as evidence that students can be accelerated in their regular school programmes. In turn, these students may be completing high school early. Stanley’s very first accelerated student entered university earlier than his age peers, successfully completing undergraduate and Masters degrees, and commencing doctoral study at the age of 17 (Stanley, 2005).

## The New Zealand provisions

“ *In 2010 there will be no further professional development or national coordination services purchased by the Ministry in the area of gifted and talented education.* ”

Two significant reports have focused on gifted and talented provisions within New Zealand schools. The first was a research report commissioned by the Ministry of Education to evaluate planned approaches to teaching gifted and talented students in New Zealand (Riley et al., 2004). The second was the Education Review Office (ERO) 2008 report. Both documents – the 2004 Riley report and the 2008 ERO report – identified inconsistency in current ‘gifted’ practices within New Zealand schools and regions. These disparities led to the identification of a relationship between school-based concepts or definitions of giftedness and school decile, with the review finding that the higher decile the schools (defined in the study as deciles 6 to 10), the more likely they were to report a school-based concept or definition of giftedness (Riley et al., 2004). ERO (2008) also found that some schools had developed and implemented programmes, and a few were ‘just beginning’ to make special provisions.

The latter report made particular recommendations pertaining to gifted and talented students in rural and low-decile schools, recommending that the Ministry provide these groups with ‘targeted, high quality professional development’ (ERO, 2008: 54). Importantly, it also recommended ‘...ongoing participation in school-wide professional development, and specialist training and development for people specifically responsible for gifted and talented education’ (ERO, 2008: 54).

One option for meeting the needs of New Zealand’s high-ability students is the provision of material that matches the student’s instructional level rather than their age. Despite the frequent use of this practice for acceleration in overseas schools, New Zealand literature is cautious in advising or recommending it. In its simplest form, acceleration differentiates the timing of students meeting the levels of the curriculum, thus enabling gifted or talented students to progress more quickly through course material, rather than progressing at the same level as their age peers. Riley et al. (2004) describe the tenets on which acceleration ought to be based, including: the importance of involving the students in the planning for differentiated instruction; matching the instructional material with the student’s needs; monitoring the student’s progress; and evaluating that progress. A student may be accelerated in one or a number of subject areas.

Enrichment, on the other hand, involves adding more material at the level at which the student is already working, a practice sometimes described as adding length or breadth to content. The Ministry of Education recommends the combined practice of both enrichment and acceleration, but also states that enrichment is the preferred option for meeting the needs of gifted students in New Zealand (Ministry of Education, 2000).

One reason for this preference must lie in the perceived inability to definitively quantify a student’s readiness to be moved up one or more levels in content, thus grouping the student with out-of-age peers. With no identified common measure to demonstrate the student’s competence with

curriculum material at their age level, the New Zealand preference is to hold the student at that age level and provide enrichment through opportunities that develop additional skills at the same level.

“*How teaching is related to learning (acquisition) requires an understanding of how individual student behavior and experience are shaped by the way the teacher designs, manages and assesses classroom activities*”

However, international literature suggests that the practice of providing enrichment may not be appropriate for the most able students, with those students who are accelerated reporting positive effects (Brody & Stanley, 1991; Kolitch & Brody, 1992; Mills, Ablard & Gustin, 1994; Olszewski-Kubilius, 2002). Gross (2006) identified that the more radical the acceleration (i.e. the greater the number of years the student was accelerated), the greater the student's overall satisfaction with life. One study investigating teacher attitudes towards acceleration found that teachers who had attended information sessions displayed more positive attitudes towards the practice than those who had not attended (Hoogeveen, van Hell & Verhoeven, 2006). Research has identified advantages to schools in accelerating high-ability students, including the ease with which this practice can be implemented, with schools able to use existing courses to meet the needs of younger students who are ready for acceleration (Swiatek, 2007). One American study found that the AP courses were the greatest predictors of success in those students who were accelerated to university ahead of their age peers (Brody, Muratori & Stanley, 2004).

One argument against accelerating students relates to the perceived social and emotional problems students may experience if they work with out-of-age peers. International literature disputes this, with accelerated students reporting positive effects connected with this practice, including opportunities to work with their intellectual peers, and experiencing heightened interest in their fields of study (Mills & Ablard, 1993; Ablard, 2005). Neihart (2007) identified socioaffective benefits for gifted students who were accelerated on the basis of having demonstrated academic, social, and emotional maturity. The same study found that acceleration could be harmful to students who were ‘...arbitrarily accelerated on the basis of IQ, achievement, or social maturity’ (Neihart, 2007: 330).

“*In New Zealand, no one quantifiable test is used to identify those students who demonstrate exceptional or even high academic ability. However, Year 1–8 students whose ‘gifted and talented’ needs are not being met through their regular school may enrol for correspondence schooling as a means of receiving appropriate curriculum enrichment and acceleration.*”

In their report for the Ministry of Education, Riley et al. (2004) considered the provisions of the Talent Search identification programmes initially developed by Julian Stanley. They state that ‘The power of this assessment programme lies in the precision of the assessment, especially for students of exceptional ability. Although this programme is not available in New Zealand, its potential in the accurate identification of academically talented students may be worthy of exploration and consideration’ (Riley et al., 2004: 26). The precision assessment referred to is the out-of-level SAT, SCAT or ACT test that is used to determine academic provisions for students scoring at the previously described percentile. In New Zealand, no one quantifiable test is used to identify those students who demonstrate exceptional or even high academic ability. However, Year 1–8 students whose ‘gifted and talented’ needs are not being met through their regular school may enrol for correspondence schooling as a means of receiving appropriate curriculum enrichment and acceleration. Ministry of Education eligibility requirements state that these students must achieve scores in the top 5 percent or above of PAT, TOSCA or AsTTle or equivalent testing, thereby quantifying and describing this gifted and talented group as the top 5 percent of those students who sit these tests.

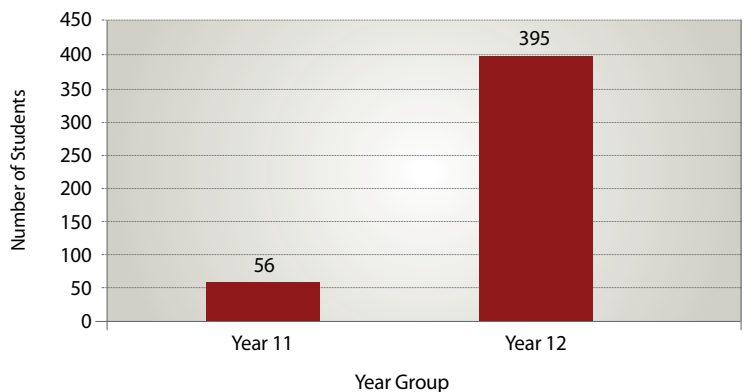
Top academic performance is also quantified in those students who gain New Zealand Qualifications Authority (NZQA) Scholarships. The NZQA Scholarship examinations identify those scholars who are ‘within a range of 2% to 3% of the cohort in each subject’ (Ministry of Education, 2005: 3). In addition, endorsements of Merit or Excellence in the National Certificate in Educational Achievement (NCEA) identify top performing students in those examinations. The purpose of these endorsements is to encourage students to produce work of ‘high quality’, with the intention further described by NZQA Deputy Chief Executive of Qualifications, Bali Haque, as being: ‘...to encourage students to strive to produce work of a high quality and to recognise that achievement when it occurs’ (Haque, 2007). This recognition, then, provides acknowledgment of those students who are within the top 2–3 percent of their cohort; in 2008, Level 3, those who are within the top 5 percent of the cohort, gaining an Excellence endorsement;

and those who are within the next top 20 percent, gaining a Merit endorsement. By providing us with a quantifiable top 3, 5 and 20 percent of scholars in this particular 2008 cohort, these data make it possible to identify New Zealand's most able scholars, based on their performance in the NCEA and NZQA Scholarship. Research into the NCEA conducted by Victoria University of Wellington was instrumental in the government decision to acknowledge students who perform 'exceptionally well' in specific NCEA subjects. From 2011, those students who demonstrate 'strength in a particular subject' will qualify for a single subject endorsement.

Data on the NZQA's NCEA website provide a picture of secondary students' success in the NCEA. The same data also make it possible to consider student performance in an out-of-level test, specifically, Year 11 student performance in Level 3 of the NCEA, and to a lesser extent, Year 12 student performance in the NCEA. These 2008 data are shown in Figure 1.

**Figure 1:** Out of level success in the NCEA Level 3, 2008\*

\*Data Source: NZQA



As Figure 1 shows, in 2008 there were 56 students who gained Level 3 NCEA while they were enrolled in Year 11, and 395 who gained Level 3 while enrolled in Year 12. It would appear that these students have been accelerated, and they worked at a curriculum level commensurate with their ability, rather than their age. What is not clear from these data is whether these

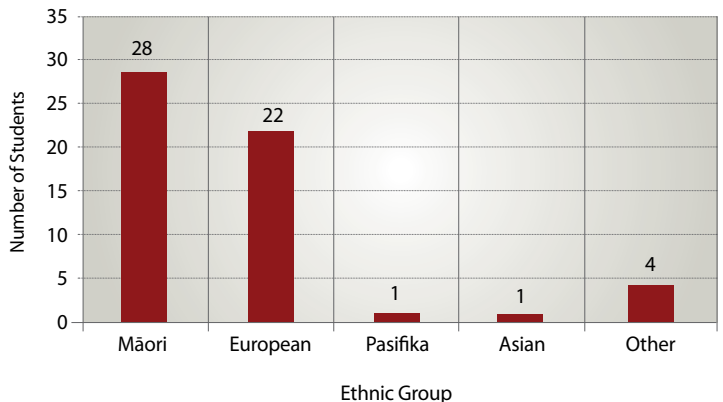


students gained the NCEA on internal credits, external credits, or a mixture of both. NZQA data also reveals that of those students who gained the NCEA Level 3 in Year 11, only one gained an endorsement, and that was a Merit endorsement. This suggests an area that requires further investigation: is gaining ‘Achieved’ an adequate outcome for students who have been selected for accelerated entry to the NCEA? Rather, should these accelerated students – if they have been selected appropriately – be expected to gain an ‘Excellence’ or, at the very least, a ‘Merit’ endorsement? It is possible that the impending individual subject endorsements will enable these students to demonstrate excellence in single subjects, and this may assist in providing a clearer picture of the student’s academic achievement following acceleration.

“ *Perhaps even more interesting is the breakdown of these data by ethnicity and school decile.* ”

Evidently, some students are able to sit the NCEA early; but whether they are invited to so, or they ask to do this, or whether some measure is employed to gauge their readiness for accelerated provisions, is unclear. Perhaps even more interesting is the breakdown of these data by ethnicity and school decile. Figure 2 shows the data for out-of-level success in the NCEA by ethnicity, and Figure 3 by school decile group.

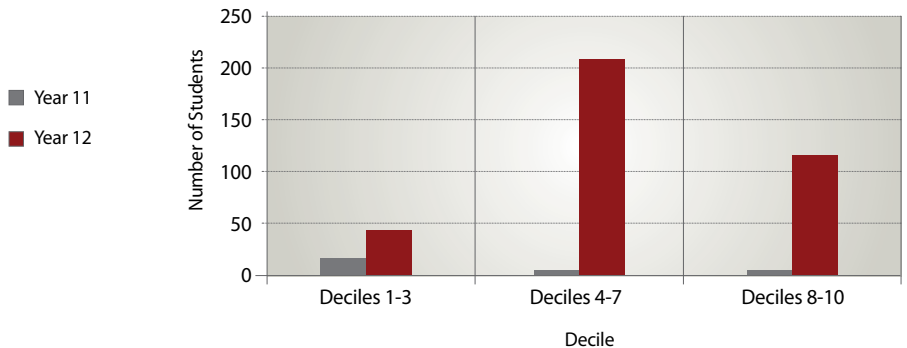
**Figure 2:** Roll-based data showing Year 11 out-of-level success in the NCEA Level 3, 2008, by ethnicity



In 2008, most of the students who gained the NCEA Level 3 in Year 11 were Māori. This finding is particularly interesting, given the arguably popular perception that Māori academic achievement is likely to be less than that of other ethnic groups (Rubie-Davies, Hattie & Hamilton, 2006). Certainly the numbers are low, but the data are representative of a group of students who attained high academic success in assessment proposed for students who were two years ahead of them.

Figure 3 shows that most of the students who gained Level 3 in Year 11 were from low-decile schools. These data changed for the next year group, where most students gaining Level 3 in Year 12 were from mid-decile schools.

**Figure 3:** Participation-based data showing Year 11 and 12 out-of-level success in the NCEA Level 3, 2008, by school decile



Source: NZQA Statistics (Endorsement Data).

*NB: Endorsement data is based on participation-based data rather than roll-based data. Participation data percentages are based on participating students; roll data numbers are based on the 1 July school roll in 2008. Hence the greater numbers of students shown in roll-based data.*

Based on these data, it would appear that in 2008, most of the students who gained the NCEA Level 3 in Year 11 were Māori students from low-decile schools, and that the practice of early entrance to the NCEA was more prevalent in Year 12 among mid-decile schools than among high- or low-decile schools.

## What does the data tell us?

What is evident in the 2008 NCEA roll-based data is that there are students in New Zealand who are already receiving accelerated out-of-level educational opportunities. It is also clear that there are groups of students – particularly Māori and European students – who, in 2008, gained Level 3 NCEA ahead of their age group peers. What the data does not tell us are the names of the schools attended by these students, whether those secondary schools prepared students in the two previous years for early entrance to the NCEA, and – most importantly – how student readiness for out-of-level provisions was gauged.

## The way forward

If we consider international models of acceleration, particularly those of CTY, it is evident that these New Zealand students have demonstrated high academic ability. The next step is to ensure that the education system continues to support them. To that end, perhaps these results need to be considered as the starting point. Following the CTY model, the next stage is to consider programme options and to offer counselling and guidance. Longitudinal data that follows these students in their decision-making will assist future decision-makers where schools or parents perceive a student is not receiving appropriate academic provisions with in-level curriculum.

Clearly, these are areas that require greater investigation. As the New Zealand report (Riley et al., 2004) noted, the power of a Talent Search such as that provided by CTY lies in its ability to accurately identify academically talented students.

It is important, therefore, that measures being used to accelerate students through the NCEA are identified, for two reasons. First, this is necessary to ensure the ‘right’ students are being accelerated: these data show only those who were successful, not those who may have been accelerated and were not successful. As international research has found, selection can be harmful if students are being arbitrarily admitted to

accelerated courses. Secondly, identification of criteria for accelerated entry to the NCEA is needed to ensure inclusion of additional students who may also be successful if they are given this opportunity.

With only one of those students who gained Level 3 NCEA in Year 11 also gaining an endorsement, it is important that there is discussion to identify expected and acceptable outcomes for those students given early entrance to the NCEA. With single-subject endorsements available from 2011, it may become evident that these early entrance students are strong in one or two subjects, and that it is those subjects in which they have gained the bulk of their credits. Perhaps it will also be possible to identify levels of achievement in the NCEA examinations that – like the AP courses – are predictive of future success in those students who are accelerated ahead of their age peers.

“ *Advanced placement through acceleration that is supported by comprehensive assessment, and involves the student in the decision-making process, is one option that this country needs to consider seriously in order to build on what is evidently already happening in some New Zealand secondary schools.* ”

The NCEA data shows that most of those Year 11 students who gained the NCEA Level 3 in 2008 were from low-decile schools. The success evidenced by these students suggests that in some secondary schools, real progress has been made in the provision of accelerated programming for high ability secondary students. These findings appear to be at odds with both the 2004 and the 2008 report, making it even more important that there is further research to investigate the processes underpinning those provisions, and to consider their applicability in providing a model for other schools to assist them to make appropriate academic provisions for their high ability students.

Advanced placement through acceleration that is supported by comprehensive assessment, and involves the student in the decision-making process (such as that in practice at CTY), is one option that this country needs to consider seriously in order to build on what is evidently already happening in some New Zealand secondary schools. Although the New Zealand government will no longer fund the gifted advisory service, there is still a need to identify specific practices that make appropriate academic provisions for high ability students. Research that identifies, describes and disseminates the process of gaining early entry to the NCEA – coupled with planning for the collection of longitudinal data – is needed to follow these students and gauge the long-term outcomes of this initiative.

This will ensure that the practice of acceleration will become recognised as one appropriate academic option for high ability students in New Zealand, and will have the added benefit of being informed by an evidence base. It is to be hoped that in the not too distant future, this country will also have earned an international reputation for accelerated practices that enable New Zealand's most able students to learn at a level commensurate with their ability, and not their age.

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## CERT Comment

Jenny Horsley's contribution to this volume illustrates important goals for the research CERT can support: understanding how the experiences of New Zealand students and educators sit alongside those provided by other nations; and helping to contemplate what this means for how effectively our education system positions New Zealand to succeed in an increasingly global future.



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