



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

Changing courses: preliminary investigation

A study of schools' use of the NQF to improve educational pathways

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Executive summary

The purpose of this study was to investigate ways in which secondary schools are using the potential flexibility of the National Qualifications Framework (NQF)/National Certificate of Educational Achievement (NCEA) for designing teaching and learning programmes or different pathways for senior students.

Interviews focusing on course design issues were carried out with teachers in 15 secondary schools throughout New Zealand in late 2004. One hundred and twenty students also took part in focus groups. In exploring the key issue of whether secondary schools are promoting flexible pathways for senior students, four topics were considered: changes in course provision; the courses that students are taking; influences on course provision; and how students' needs are being met.

Schools reported making various changes to their senior courses during the three years up to and including 2004, and intended to make other changes in 2005. These included mixing standards across levels and subjects with courses made up of level 1, 2 or 3 achievement (internal or external) or unit standards, and offering expanded curricula with new courses incorporating standards from a range of learning areas. All schools in the study were committed to the NCEA, but there had been a growth in other National Certificates with schools offering an average of six National Certificates, the most popular being in the areas of computing and tourism.

Schools are now meeting the needs and interests of their students in various ways. Students are offered different versions of subjects that cater for a range of abilities and interests, and multilevelling is encouraged. Students also have access to a range of programmes including transition courses, international certificates, distance learning and academies.

The majority of schools believed that the implementation of the NQF/NCEA has allowed increased course flexibility. This is due to schools being able to be more creative in their course design and to select standards that meet their students' needs. Students are also able to gain a range of qualifications, and credits are transferable between providers and tied into transition programmes funded through the Secondary Tertiary Alignment Resource (STAR). Different aids and barriers to offering flexible courses were identified. These include timetables, staff, resources, students, courses and relationships with others in the education sector and community.

Schools reported that more students are gaining qualifications since the implementation of the NCEA. Students reported choosing courses based on their career or study aspirations, on their likelihood of achieving in the course and on their enjoyment of the course. All students emphasised the importance of their teacher, with this being a key factor in determining why they chose to drop a course. They reported receiving career advice from a range of sources: career counsellors, teachers, family members, course selection booklets, Internet or computer programmes, university liaison officers and career expos.

Overall, while schools were positive about the NCEA and its impact on course design, several issues relating to the new qualifications system were identified. There was a perception in some schools that unit standards and National Certificates are for low ability students. Students also appeared to be streamed into versions of courses based on their previous ability level.

In summary, schools are now working to create courses that are more flexible and that offer a wider range of pathways for students. Further areas of investigation such as patterns of course selection, career advice and the experience of students in alternative or vocational programmes have been identified.

Introduction

The National Qualifications Framework (NQF) was designed to better meet the changing competencies, needs and aspirations of secondary school students, as well as to address the changing requirements of the New Zealand economy and society. One of the key aims of the new qualifications system is that ‘there are flexible pathways available to students in the provision and acquisition of learning and qualifications’¹.

Research conducted in New Zealand and further afield on pathways has highlighted key trends in this area (Baird, Ebner & Pinot de Moira, 2003; Hipkins & Vaughan, 2002; Hipkins, Vaughan, Beals & Ferral, 2004; Hipkins, Vaughan, Beals, Ferral & Gardiner, 2005; Marshall, 1999). Many schools are being innovative in the range of courses they offer to students. In New Zealand, changes such as offering combined subjects, different versions of subjects and a mixture of assessments have been directly attributed to the introduction of the new National Certificate of Educational Achievement (NCEA). Secondary schools in New Zealand also provide a variety of programmes or funding arrangements that allow clear pathways from secondary school to employment or further study. These include STAR, Gateway, Youth Training and Modern Apprenticeships. Patterns in students’ choice of courses in Australia and New Zealand have revealed a changing cohort and expanded subject areas. Schools are finding ways to identify and meet the needs of a more diverse cohort through, for example, multilevel courses that allow students to work at their own pace. Several aids and barriers to flexible pathways, including advice relating to subject choice and careers and the availability of resources and government programmes, have been identified. But although the New Zealand Council for Educational Research’s (NZCER’S) study *Learning Curves* shows how some schools are changing courses to meet student needs, there is a lack of comprehensive information on how schools are using the NQF/NCEA to design flexible courses for their students.

The *Changing Course* preliminary investigation looked at ways in which secondary schools are using the potential flexibility of the NQF to provide educational pathways (i.e., courses, programmes and offsite opportunities) that better meet the needs of their students. This study focused on four key areas with the aim of identifying the issues that secondary schools encounter in relation to providing flexible pathways at senior levels.

¹ Ministry of Education (2000). *The National Certificate of Educational Achievement: Paper 1*, p 10. Submission to Minister of Education

Main research question and areas of investigation

In keeping with the Government's aims stipulated in the National Certificate of Educational Achievement Paper 1 for the NQF/NCEA, the key question asked in this research was, 'Are secondary schools promoting flexible pathways for senior students?' To answer this question, the following four key topics were emphasised. They were chosen from a review of relevant literature and canvass specific issues that secondary schools face when designing courses.

Changes in course provision

Changes in courses offered in the secondary school and pathways available to senior students since the implementation of the NCEA were investigated. The factors influencing course provision were explored with a particular focus on changes to the core courses of English, mathematics and science. The availability of NQF certificates other than the NCEA and transitional programmes was also investigated.

Influences in course provision

A range of aids and barriers to flexible courses at senior levels in the schools was compiled through discussions with staff members.

Meeting students' needs

The ways in which schools identify and meet the needs of a range of students were investigated. Staff noted their schools' strengths in meeting their students' learning and curricular needs.

Students' choices of courses

Students' choices of courses were explored to try to establish any patterns in course choice. Students' views on their reasons for choosing to study or drop a particular course were sought. Advice given to students on course and career options was also investigated.

Each of these areas provides insight into how schools are changing their courses and whether they meet some of the Government's aims for senior secondary school qualifications. These aims, noted in the National Certificate of Educational Achievement Paper 1, include raising students' skill and creativity levels to build a more competent and innovative work force, promoting lifelong learning and increasing student retention rates. The Government stipulated that senior secondary school qualifications must:

- be able to be built upon and provide students with a wide range of opportunities for reaching their career goals
- create incentives and goals for current and future (lifelong) learning
- provide more flexible pathways for students
- provide increased choice for students regarding courses.

This investigation provides information on whether the Government's aims are being met. It was conducted in October 2004, and sought to trial potential methodologies, identify pertinent issues and provide a snapshot of what is happening in 15 secondary schools throughout New Zealand.

Methodology

The nature of the study was exploratory. While the size of the sample restricts broad conclusions about what one type of school is doing compared to another, the study's purpose was to highlight some of the issues associated with course design in the new senior secondary qualifications environment for different types of schools, and to provide a basis for further investigation. Consequently, although each of the four main areas of the study was covered, not all school staff members interviewed were asked the same questions, or in the same order. This allowed for a rich range of comparable information to be collected from each school while allowing for differences in emphasis.

Data gathering

A sample of secondary schools for potential inclusion in the study was compiled based on discussion with NZQA's School Relationship Managers, review of relevant studies and media clippings. Twenty-nine schools were initially contacted with a final sample of 15 agreeing to take part in the study. While a range of schools was sought to be involved in the study particular attention was paid to finding schools offering innovative practices in the area of course provision. A letter was sent to principals at each school outlining the study and details for the school visit. Schools were also sent a form to claim for teacher relief costs. An information sheet about the study listing documents to be collected and questions that could be asked was also sent to each school to help participants prepare for the school visit. This sheet can be found in appendix 1. Before each visit, information such as school roll size and decile was collected, course information booklets were downloaded from the schools' websites and key questions were prepared. The Education Review Office reports for each school were also reviewed to provide background information.

Sample of secondary schools

One half to a full school day was spent in each school. As table 1 shows, the secondary schools in the study included both single-sex and co-educational schools. The sample was similar to the national cohort of schools in that the majority of schools were state schools from the North Island and covered the range of deciles. Schools were classified as urban or rural based on their 'School territorial local authority' as set out on the Te Kete Ipurangi (TKI) website (<http://www.tki.org.nz/e/schools/>). Those schools described as "city" were classified as urban, and those described as "district" were classified as rural. School rolls were from under 300 to well over 1,000 students. The ethnic mix of students in each school varied considerably from those with a majority of Pakeha students to those with a majority of Māori students. Pasifika, Asian and other ethnicities were also represented. All schools were classified as secondary, with no composite or kura being included in the sample.

Table 1. Sample of secondary schools

Characteristic	Categories	Number of secondary schools
Area of New Zealand	North Island	10
	South Island	5
Locality	Urban	9
	Rural	6
School type	Co-educational	9
	Single-sex girls	3
	Single-sex boys	3
School authority	State	12
	State: Integrated	3
School roll	Under 300 students	2
	3001 to 1,000 students	7
	Over 1,0001 students	6
Decile bands	1–3	4
	4–7	5
	8–10	6

Sample of staff members

A list of possible staff members to be involved in the research was given to schools. Schools were asked to recommend staff involved in course programming, timetabling and career advice for senior students. In most cases, the Principal's Nominee organised staff to be interviewed and the schedule of interviews for the visit.

Principal's Nominees were interviewed to find out what courses or versions of courses had been introduced or removed. This helped to develop an overall picture of each school's course provision and how innovative it was in its course programming. Heads of Departments or Faculties were interviewed to find out how the school was meeting a range of student needs and how their courses had changed with the implementation of the NCEA. To identify enabling or inhibiting factors that schools face when structuring courses and the information that students receive about pathways through and beyond school, discussions took place with administrative staff in charge of timetables and with Careers Advisors. In each school, the roles of the staff interviewed varied, reflecting the informal nature of the study. The following table indicates the distribution of staff roles.

Table 2. Roles of school staff interviewed*

School role	Number interviewed
Principal	6
Principal's Nominee	13
Deputy, Associate or Assistant Principal	19
Head of Department or Faculty	40
Teacher	13
Curriculum Coordinator	10
Dean	13
Career Advisor or Guidance Counsellor	12
STAR, Gateway or Transition Coordinator	9
Timetabler	8
Correspondence Supervisor	1

*Note that any one staff member may fill more than one role.

All interviewees were asked open-ended questions based on the four key areas of the major project. The list of questions is in appendix 2. Interviews were conducted individually or in small groups and lasted from 20 to 90 minutes, with the interviewer making notes on responses to the questions asked and the topics discussed.

Sample of students

Approximately 60 Year 12 and 60 Year 13 students in 14 of the schools were interviewed in 24 small focus groups. The interviews lasted between 20 and 45 minutes. Questions focused on perceptions of subjects, pathways for the future and guidance. The list of questions is in appendix 3. At one school, the senior students were on study break so Year 9 and 10 students were interviewed. Inclusion of information from these students in this report has been limited to perceptions of the choice of courses in their school, the relevancy of core subjects, and issues to do with the NCEA.

Collection of school documents

Documents including information such as subjects offered at each year level were reviewed and course information booklets were collected. The documents were analysed to determine the courses and programmes being offered to students in 2005. Other documents were also collected such as tracking sheets for qualifications gained, written advice given to students when selecting courses, and school prospectuses.

Data analysis

Analysis of school documentation

Each school's course information booklet(s) were analysed to find out how many courses were available to students at level 1, 2, or 3. The versions of core courses (English, mathematics and science) were also noted and the average number at each level computed. Details of other NQF certificates apart from the NCEA, and alternative programmes or certificates, were also collected. Comparisons between types of schools and the school's roll were also made to highlight any patterns.

Analysis of interview and focus group data

Information from interviews was sorted by topic: changes in courses since the implementation of the NCEA; patterns in students' choice of courses; how schools identified and met student needs; aids and barriers to offering flexible courses; and the flexibility of courses since the implementation of the NCEA from 2002. A range of issues was also identified based on the provision of courses and the senior secondary qualifications system in general. Within each question, main themes arising from the interviews were identified based on frequency of response. The data from the student focus groups were analysed in the same format, grouping data by questions: favourite course; reasons for selecting and dropping courses; course choice in their school; career and course selection advice; post-school plans and expectations; and relevance of courses.

The data gathered from school documents, interviews with staff, and focus groups with students were analysed in line with the four main areas of investigation. Changes in the courses offered at each school since the implementation of the NCEA were assessed, and the courses, certificates and programmes available to students were noted. Aids and barriers to offering flexible courses and schools' strengths in identifying and meeting student needs were highlighted. Finally, student perceptions of course choice and their reasons for course selection were identified.

Results

Changes in course provision

To establish whether schools had made significant changes to their school curriculum since the implementation of the NCEA, staff were asked about differences in the courses they offered. Each school's course booklet was analysed to find out the courses, versions of core courses, National Certificates and other programmes that were available to students. Staff were also asked to explain the rationale behind their courses and comparisons were made based on school type and locality.

Number of courses available at each year level for 2005

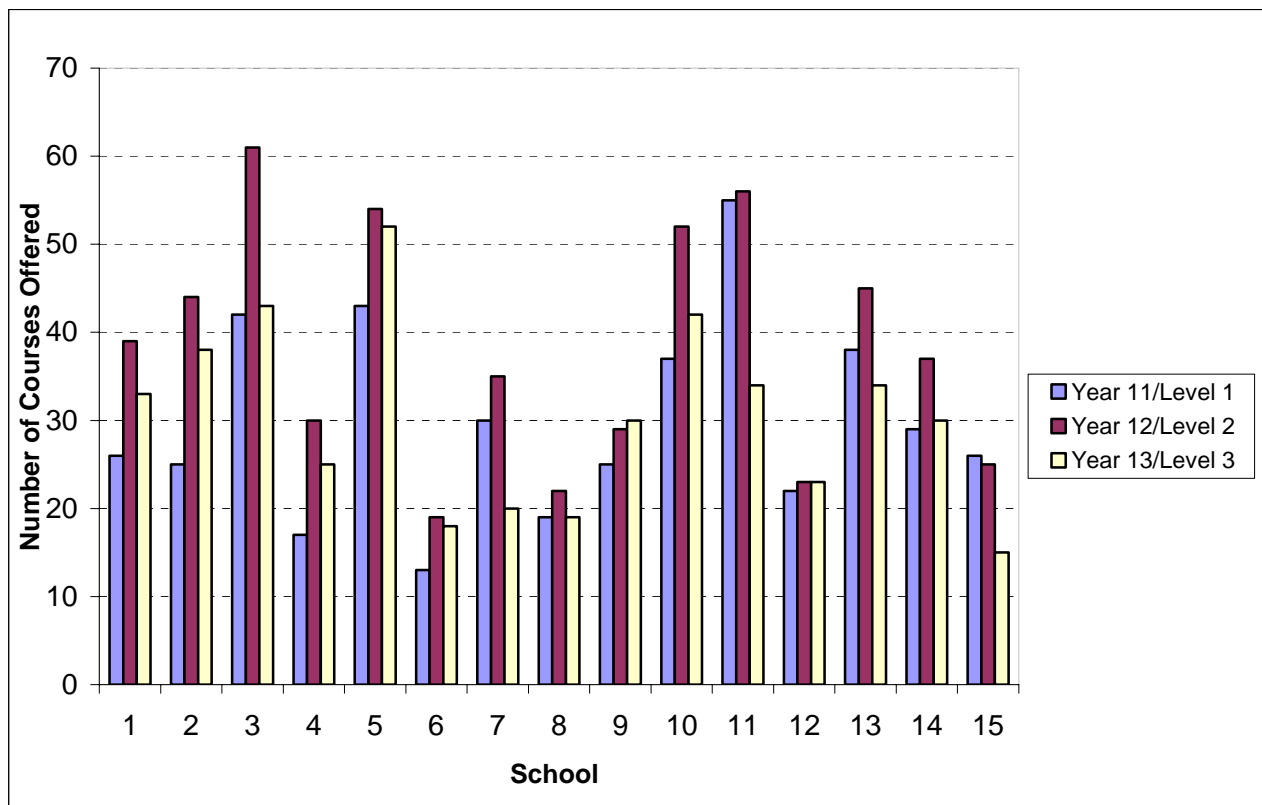
The average number of courses available at each level for the 15 schools was computed. At Year 11 or level 1, schools offered on average 30 courses, but this ranged widely from 13 courses in one school to 55 in another. At Year 12 or level 2, an average of 38 courses was offered, and at Year 13 or level 3, schools offered on average 30 courses. The number of courses offered in each school at each level is shown in graph form on the opposite page. At Year 11, as two to four courses were compulsory for students, this had an impact on how many other courses were available to them. Students in all the schools were required to study an English or te reo course, a mathematics course and, in some schools, one or more of a science, physical education or religious education course was required. At Year 12, students were required to study an English or te reo course but once they were in Year 13, their final year of study, they usually had no compulsory courses (the exception in some schools being religious education).

In the majority of schools, it was at level 2 that students were offered the greatest variety of courses, and at one school, 19 more courses were offered in Year 12 than in Year 11. This curriculum expansion appears to be due to an increase in more vocational courses, funded through STAR or Gateway, being made available to students. A decrease in subjects offered from Year 12 to Year 13 may reflect a stronger tertiary focus, with the subjects available providing a foundation for university or polytechnic study. Versions of the core courses of English, mathematics and science typically decrease at Year 13, with only one or two versions being offered (and with an academic orientation).

Other subjects like technology or transition courses also disappear from some schools in Year 13. A few schools also offered a number of modular courses, which ran for half the year. These courses increase the total number of courses reported.

Overall, the total number of courses offered across Years 11 to 13 varied greatly, ranging from 50 to 149.

Figure 1. Number of courses offered in each school at each level in 2005

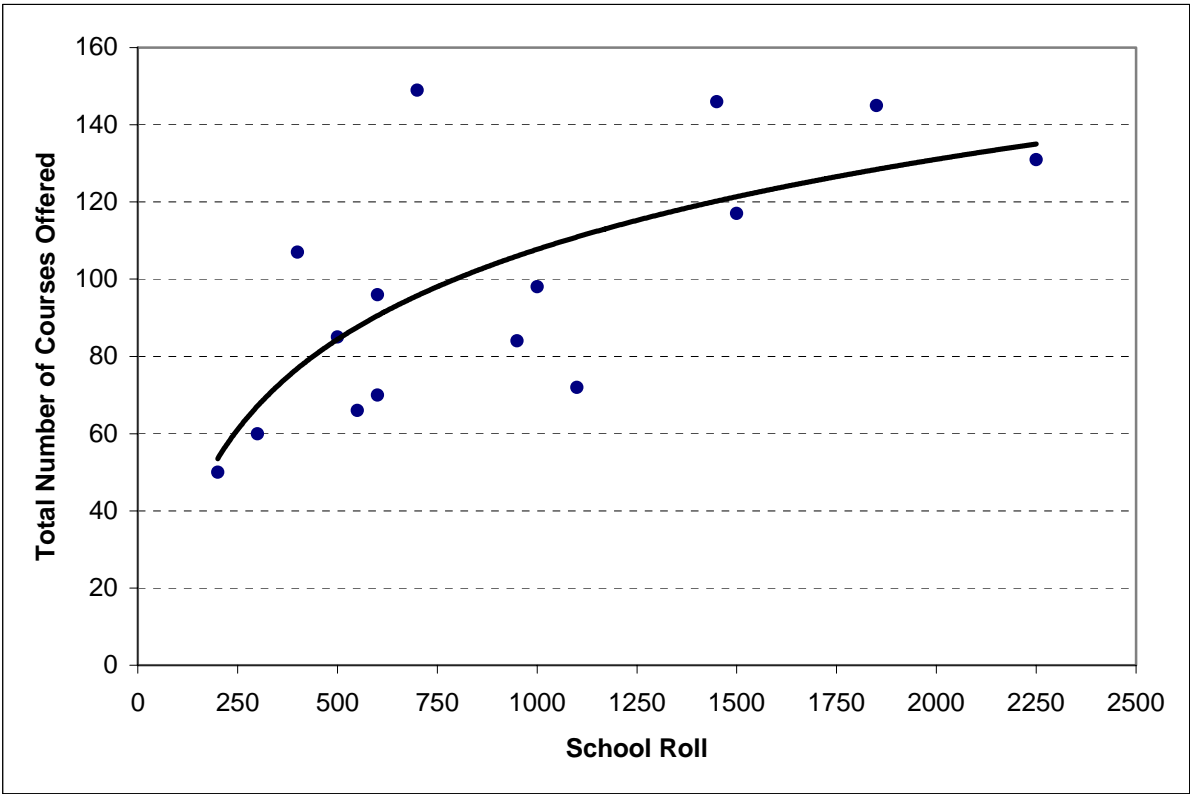


Number of courses offered in a school compared to the school’s roll

As shown in figure 2 a scatter-plot graph was constructed showing the total number of courses that each school offered compared with its 2004 school roll. The trend line shows an overall upward trend, with the number of courses offered increasing as the school roll increases. Schools with an average of over 1,000 students offered more courses at levels 1, 2 and 3 (a total of 122 courses on average) than those with fewer students. Those with fewer than 500 students on average offered fewer courses (a total of 72 courses on average). However, factors other than school roll may influence how many courses a school offers its students, for example how willing or able it is to offer courses outside the core curriculum such as animal care, cultural crafts or film studies. In two single-sex schools, with a roll difference of 300 students, the school with the higher roll offered up to 27 fewer courses at level 3 than the school with the smaller roll. The school with the higher roll offers predominantly traditional or academic focused courses which limits the range of courses available to its students.

The school that offered the greatest number of courses (a total of 149) had a wide range of modular or half-year courses, which contributed towards the high total. However, as the school’s roll was only a third of that of the largest school’s roll, proportionately it offered three times as many courses for the number of students as did the largest school. This school was innovative in terms of the variety of courses it offers its students, including courses such as equine studies and farm skills, usable art and child development. It also has a long tradition of offering unit standards, has a range of certificates available and operates a flexible school timetable.

Figure 2. Number of courses offered by each school based on school roll



Note: school roll is based on the 2004 roll obtained from the Te Kete Ipurangi (TKI) Website, rounded to the nearest fifty.

How schools and their students rated the choice of courses offered

Staff and students at each school were asked how they rated the choice of courses offered at their school at senior levels. The following table summarises the most frequently mentioned comments. Overall, student and staff comments were very similar. Most staff reported that the choice was very good and the school offered a wide range of courses. A few schools noted that the range of courses should expand and this was echoed in student comments. Where students found the choice of courses to be limiting, reasons such as the size of the school or school culture were cited. Some schools reported that they catered well for non-academic students while others reported that they catered best for academic students.

Table 3. Staff and student comments on how they rated the courses at senior levels offered at their school

Roll Band	School	Total Number of Courses Offered	Staff comments	Student comments
Under 300	6	50	<ul style="list-style-type: none"> • Wide variety of courses 	<ul style="list-style-type: none"> • Really good choice • Wide range of courses available
	8	60	<ul style="list-style-type: none"> • Curriculum expanding • Good, wide range of courses 	<ul style="list-style-type: none"> • Choice is OK • Main subjects are offered
300-1000	2	107	<ul style="list-style-type: none"> • Caters well for subject choice • Lack of choices for academic students 	<ul style="list-style-type: none"> • More choice wanted
	5	149	<ul style="list-style-type: none"> • Choice really good 	<ul style="list-style-type: none"> • Broad choice • Huge amount of courses
	7	85	<ul style="list-style-type: none"> • Wide range of courses • Try to offer everything 	<ul style="list-style-type: none"> • Choice is good • Wide range of courses at Year 12 • Not enough courses at Year 13
	9	84	<ul style="list-style-type: none"> • Range of courses is quite good • Increase in non-academic courses 	<ul style="list-style-type: none"> • Could be more choice • Courses are restricted by size of school • Limited choice of non-academic courses
	12	70	<ul style="list-style-type: none"> • Wide range • Good choice for size of the school 	<ul style="list-style-type: none"> • Poor to average choice • Would like more choice
	14	96	<ul style="list-style-type: none"> • Range of courses is a strength • Choice is really high for size of school 	<ul style="list-style-type: none"> • Wide range of courses • More subjects have been introduced
	15	66	<ul style="list-style-type: none"> • Curriculum has expanded • Fewer courses for Year 13 students 	<ul style="list-style-type: none"> • Not a huge choice of courses • Very general selection
Over 1,000	1	98	<ul style="list-style-type: none"> • Range of courses available • Academic and non-academic courses 	<ul style="list-style-type: none"> • Conservative school
	3	146	<ul style="list-style-type: none"> • Curriculum expanded • Curriculum always changing 	

Roll Band	School	Total Number of Courses Offered	Staff comments	Student comments
Over 1,000	4	72	<ul style="list-style-type: none"> • Traditionally only academic courses • Curriculum needs to expand 	<ul style="list-style-type: none"> • Narrow subjects • Not enough choice, very limited • Only academic courses available
	10	131	<ul style="list-style-type: none"> • Broad curriculum • Growing number of courses 	<ul style="list-style-type: none"> • Choice is huge • Range of courses is good • All interests are covered
	11	145	<ul style="list-style-type: none"> • Expanded curriculum 	<ul style="list-style-type: none"> • Range of courses is good but could be more interesting, e.g., combined subjects
	13	117	<ul style="list-style-type: none"> • Liberal – very wide range of courses • Good balance of subjects 	<ul style="list-style-type: none"> • Choice is pretty good • Increased range of courses

Subjects dropped or introduced since the implementation of the NCEA

Staff were asked what changes, if any, they had made to the courses they offered since the NCEA had been implemented in 2002. All of the schools reported varying degrees of change. These included the introduction of unit standards, National Certificates and Academy programmes. New courses were introduced with many schools reporting the curriculum was expanding and this was most marked in alternative or non-academic courses. The most significant change reported by all schools was the provision of alternative versions of core subjects. Schools reported offering several versions of English, mathematics and science before the NCEA began but that the number of versions offered had increased, and the content of alternatives had changed, since the implementation of the NCEA. Just over half of the schools reported that they already offered unit standards, National Certificates, a range of alternative courses and academies before the NCEA had been implemented. A few of these schools reported no major changes in their curriculum programme. Overall, schools reported that the curriculum had expanded and was now more tailored to student needs.

Versions of core courses available at each year level in 2005

Schools offered several different versions of core courses to their students at levels 1, 2 and 3. The most versions were offered in science though schools differed on how they classified science courses, with one school including ten courses in level 1 science: 3 science alternatives, biology, electronics, agriculture, two horticulture options, environmental improvement and floriculture. On average, schools offered between two and five alternatives over the three levels. Tables 4, 5 and 6 show the versions of core courses offered in each school in 2005.

Table 4. Versions of core courses offered at Year 11/Llevel 1 in 2005

Roll Band	School	English	Mathematics	Science
Under 300	6	1	2	1
	8	2	2	2
300-1000	2	3	2	3
	5	2	2	2
	7	2	2	1
	9	2	2	2
	12	2	2	2
	14	3	3	2
	15	2	3	4
Over 1,000	3	4	4	4
	4	1	1	1
	1	3	3	4
	10	2	3	4
	11	4	3	10
	13	4	3	6
	Average	2	2	3

Table 5. Versions of core courses offered at Year 12/Llevel 2 in 2005

Roll Band	School	English	Mathematics	Science
Under 300	6	1	2	3
	8	2	2	3
300-1000	2	3	2	5
	5	2	3	6
	7	3	3	3
	9	2	2	4
	12	2	2	4
	14	2	3	4
	15	2	2	5
Over 1,000	1	4	2	8
	3	3	3	8
	4	1	4	3
	10	2	3	3
	11	4	4	6
	13	3	3	8
	Average	2	3	5

Table 6. Versions of core courses offered at Year 13/Level 3 in 2005

Roll Band	School	English	Mathematics	Science
Under 300	6	1	2	3
	8	2	2	3
300-1000	2	1	3	4
	5	2	3	4
	7	1	2	3
	9	1	3	4
	12	1	2	4
	14	2	3	3
	15	1	2	3
Over 1,000	1	2	3	6
	3	2	3	5
	4	1	3	3
	10	2	3	3
	11	2	2	6
	13	3	3	5
	Average	2	3	4

Schools indicated that they had always offered alternative versions of courses. However, since the NCEA had been implemented, the versions of each subject now differed in three main ways:

- The number of versions offered to students.
- The versions offered in subjects other than the core English, mathematics and science courses.
- The content of versions offered.

Schools indicated that before the NCEA was implemented they offered two versions of a subject: a mainstream version which the majority of students studied, and a version with more restricted qualifications and content for students who may struggle with the course (this included, for example, a second year School Certificate mathematics course for those who failed School Certificate the first time they sat it). In 2005, schools offered up to four courses for one subject with, for example, a full 24 credit course for very able students, a restricted credit course for average students, a course with restricted standards in which students may complete level 1 standards over two years, and a course in which students focused on foundation skills and did not gain credits.

Six schools also offered alternative versions of courses for subjects other than English, mathematics and science. Alternative versions at the same year or level were offered for 2005 in the following courses: geography, information management, information communication technology, music, physical education or outdoor recreation, education for speakers of other languages (ESOL), horticulture and technology. Physical education was the most popular course to have alternative versions with subjects such as Sport Science and Outdoor Recreation offered by schools. This may indicate a new direction of schools increasingly tailoring their courses to particular groups of students.

How the content of course versions differed

By reviewing each school's course information booklet and by asking staff how each version differed, several key differences were noted. Versions differed in three main ways:

- The number of credits and standards available in the course.
- Whether the course included only unit or only achievement standards (external or internal) or a combination of both.
- The content of the course or what information students would be learning throughout the course.

Versions of subjects also differed by whether students would gain university entrance requirements, for example, a level 3 English course which offers certain literacy credits. This course offers only internal assessments and differs from the other English version offered at level 3, which offers up to 24 credits and has a combination of internal and external achievement standards.

Choice of courses also reflected whether students would be assessed for other examinations, such as New Zealand Scholarship or the Cambridge International Examination. Several schools had separate classes that catered for these examinations, targeted at very high achieving students. Another difference between the versions noted by the schools is the level of achievement (i.e., Achieved, Merit or Excellence) expected by students in each course.

Reasons for schools offering alternative versions

When staff were asked why they had decided to offer alternative versions, or change the number or structure of versions available, the most common response was to cater for student needs, with the courses being tailored to the different abilities of students. Historically, alternative courses were introduced because students failed School Certificate but still needed qualifications. With the introduction of the NCEA, schools indicated that they now have more flexibility with course structure and are able to make use of the different credit values of standards available on the NQF. Schools wished to offer courses that led to meaningful qualifications to students who were struggling with a full achievement standard course. One school noted that with the NCEA, students were expected to achieve more highly in literacy and numeracy and this could be another reason for offering the alternative versions. Another school noted that there was a shift away from students' perception of 'cabbage' courses as now the students were all working towards the same qualification.

One school aimed to offer flexible courses that were not tied to a specific year or level. In mathematics, it offered four courses made up of the following achievement or unit standards:

- 1 Mathematics standards at level 1 (majority) and 2; statistics standard at level 3.
- 2 Mathematics standards at level 1 and 2 (equal numbers); statistics standard at level 3.
- 3 Mathematics standards at level 2; statistics standards at level 3; management standard at level 3; technology standard at level 3.
- 4 Statistics standards at level 3; calculus standards at level 3 (majority); software development standard at level 3; technology standard at level 3.

Overall, more internal standards than external were offered in these courses, and over a range of learning areas including management, technology and computer standards. This helped to demonstrate how mathematics could be used in various contexts and addressed the different interests of students at the school. The head of mathematics reported that students' interests drive the structure of the courses. The courses are also designed to be multilevel and are not tailored to specific years or levels. For instance, students do not have to complete one course to be allowed to start another. Instead, they can select courses based on their interests and

ability. These courses mark a definite change from generic level 1, 2 or 3 mathematics courses, and are an example of teachers using the potential flexibility of the NQF.

Another way in which schools are attempting to cater for different student abilities is through the use of strands or tiers. For example, in one school, four level 1 mathematics courses were offered to students:

- 1 Academic (majority external achievement standards).
- 2 Standard (unit standards and achievement standards).
- 3 Preparation (unit standards working towards a National Certificate in mathematics).
- 4 Foundation (unit standards with a focus on gaining eight numeracy credits).

At this school, all courses at levels 1, 2 or 3 are assigned to one of the four strands, an approach which is quite unique. Students are placed in each strand based on previous achievement, with multilevelling common.

As this system reflects teachers' views of student capability, two issues arise. First, once a student is placed in a course it may be difficult to move between strands, so are there 'academic' students or 'standard' students? Second, how do the students perceive the strands? They may view the 'academic' and 'standard' strands as preferable and be reluctant to be placed in the 'preparation' or 'foundation' strands. Unfortunately students were not spoken to in this school so their views on this way of structuring courses is unknown.

An issue mentioned by a number of schools was the perception from students and parents that the students should be in the mainstream course. One school reported that it struggled to include non-conventional versions of a course, as there was pressure from students and parents to offer only mainstream courses. Another issue that arose was of schools being unable to offer alternative versions because their rolls were too small. For these smaller schools it was not feasible to have different versions of courses at a particular level. However, as the previous example of mathematics courses shows, some of the smaller schools were designing courses that covered different levels and topics.

How schools place students in the different versions

Schools reported placing students in versions of courses based on their previous achievement, such as standards passed and grades obtained. Teachers also made judgments about the suitability of a student for a particular course based on their knowledge of the student's motivation and previous classroom learning. Staff did not report whether students had a choice of which course version they studied.

New courses offered

While different versions of courses have increased the total number of courses available since the implementation of the NCEA, several new courses have also been introduced or developed from established courses. The new qualifications may not have directly caused the introduction of these new courses (schools may have always been intending to offer them), but the NQF has enabled schools to be more creative in the courses that they design. One example of this is a course with an environmental focus that three of the 15 schools offered to students. With titles such as environmental science, sustainable futures and environmental studies, the courses combined external and internal achievement standards from the areas of science, social studies, biology, physics and health. This use of a wide range of standards led to quite different courses being offered at each school. However, all focused on environmental issues and actions, and were tailored to the students' interests and the resources that were available. The courses were intended for Year 12 students but were also available to Year 13

students. They highlight a new direction of environmental issues being explored in a specific course rather than being part of the science or social science curricula. Such cross-curricular courses also signify a tangible way in which schools are using the flexibility of the NQF/NCEA to create new and interesting courses for their students. However, teachers reported that it was a challenge to find suitable standards to include in these courses, as specific environmental standards are not available. Another issue, in one school, was that as the course was new, it was not as popular with students and was seen as less challenging than traditional science or geography courses.

Another new direction identified was schools combining existing courses into a new course. An example of this is a humanities course offered in one school at levels 1 and 2 that included internal and external achievement standards in history and geography. The courses were able to meet the interests of students and provide them with knowledge of both areas, and is another example of schools using the flexibility of the NQF/NCEA and tailoring courses to the needs of students. With a small school roll, it was also practical to offer a combined humanities course rather than separate history and geography courses. The teacher involved reported that students enjoyed studying the range of topics available and were achieving standards. It may be that, as well as gaining knowledge of each area students were gaining skills that they could apply to both history and geography assessments.

Other interesting courses being offered at some of the schools were in agriculture (primary production and marketing, and a rural studies programme), business (human resource and management), computing (digital design), hospitality (travel destinations, and Māori tourism) and physical education (sport science). These courses reflected the needs and interests of students at these schools. Other examples included a school with an increasing Pasifika population offering Samoan as a language, and a course entitled 'Citizenship Studies' based on unit standards that provide students with skills and knowledge useful for being a citizen in New Zealand. The course topics include cultural awareness and assist with the transition from school to employment or further study.

One course that was offered at 11 of the 15 schools was English for Speakers of Other Languages (ESOL). The school with the largest roll (over 2,000 students), and in an area with an increasing Asian population, offered eight different ESOL courses. The courses combined English and ESOL unit standards and included small 'booster' classes for those new to the English language who required individual help, courses for those whose English was not at a sufficient level for mainstream English classes, a course for students who required literacy standards at level 2 for University Entrance, and an advanced ESOL course for those who had gained their literacy credits. This school is catering very well for the needs of these students. The four schools that did not offer ESOL are all located in rural areas and had a roll of fewer than 600 students.

Overall, the curriculum coverage at most of the schools appears to be expanding, with a growing diversity of courses available. The reasons for schools being able to offer these new and more flexible courses are explored in 'Influences in course provision' on page 29.

Other National Qualifications Framework certificates offered

Unit standards were first registered in 1993 and the first qualification was available to students and providers in 1994. In this year, secondary schools were first able to offer National Certificates. National Certificates other than the NCEA offered by schools were noted by reviewing each school's course information booklet and by talking with staff.

Table 7 shows how many certificates other than the NCEA are offered in each of the 15 schools. The number of National Certificates offered in each school ranged from one to 12 with an average of six. Overall, 60% of schools offered five or fewer National Certificates. Of the three schools that offered ten or more certificates, one was a single-sex boys' school situated in a provincial area, and the other two were co-educational, rural schools with under 600 students.

Table 7. Number of National Certificates other than the NCEA offered in 2005

Roll Band	School	Number of National Certificates offered
Under 300	6	6
	8	5
300-1000	2	3
	5	6
	7	10
	9	4
	12	4
	14	12
Over 1,000	15	3
	1	12
	3	4
	4	2
	10	5
	11	6
	13	4
	Average	6

Note: Individual levels have not been included in the tally, e.g., a school may offer the National Certificate of mathematics at levels 2 and 3, though this is only counted as one mathematics certificate.

Schools were asked if they had offered National Certificates before the NCEA was implemented in 2002. Most had offered unit standards and some National Certificates before NCEA was introduced, but all schools reported that they now offered a wider range of National Certificates, citing the popularity of several certificates with students.

All schools reported a focus on students gaining the NCEA, but some schools were also open to offering other National Certificates. These schools wanted to broaden their provision of qualifications other than the NCEA and considered the range of National Certificates that they offered to be a definite strength. The National Certificate programmes gave students a clear pathway from secondary school to the workplace or further study, both keeping them at school and helping them to gain qualifications. The National Certificates also complemented programmes that schools were offering; for example, an agricultural certificate tied in with a

rural studies programme and a boat-building certificate was clearly useful in a community where the marina is a very important source of employment. Some schools reported that they had offered National Certificates before the NCEA was implemented as an alternative for students who would struggle with gaining School Certificate. Several schools shared this view, though most saw the National Certificates as complementing the NCEA and offering meaningful qualifications for all their students. Another school argued that National Certificates were taught at polytechnics or other tertiary institutes and therefore should not be the focus at secondary school.

From discussions with staff, it became clear that most schools had first introduced National Certificates for lower achieving students or for those interested in specific careers. This is reflected in the popularity of National Certificates such as computing and tourism. With credits also contributing to the NCEA, it may be that the status of some National Certificates has increased which in turn has led to more schools offering them.

Differences in National Certificates available at different schools

Table 8 lists National Certificates available, other than the NCEA, according to type of school. The three girls' schools offered fewer National Certificates than the three boys' schools. The boys' schools offered a far wider range of certificates in areas such as computing, sport, technology, agriculture, horticulture and fisheries and academic subjects. Overall, the nine co-educational schools offered the widest range of certificates. Table 8 indicates quite gendered curriculum with girls' schools for instance offering early childhood education and care, and boys' schools offering engineering.

As table 8 also shows, the most common certificate offered was in computing, with 73% of schools offering it to their students. Employment skills and the tourism and travel certificates were the next most common certificates offered, though hospitality, business administration and computing were also popular.

In summary, a wide range of certificates was offered in schools, some in quite specialised areas such as aquaculture. These certificates show schools tailoring qualifications to students' interests. Those certificates in the areas of computing and tourism appear to be the most popular though a few schools offered certificates in primary industries (agriculture, horticulture, equine, forestry) and in technology areas (electronics technology, elementary construction, furniture making). Certificates in the core subjects of mathematics and science were less popular.

Table 8. National Certificates offered other than the NCEA, by school type

Certificate	Girls n=3	Boys n=3	Co-ed n=9	Total n=15
Computing	1	2	8	11
Employment skills	2	1	5	8
Tourism and travel	2	1	5	8
Hospitality	2		5	7
Business administration and computing	1		5	6
Mathematics		1	4	5
Electronics technology		3	2	5
Agriculture		2	3	5
Horticulture		2	2	4
Early childhood education and care	2		1	3
Equine	1		1	2
Forestry		1	1	2
Outdoor recreation		1	1	2
Science		1	1	2
Sport		1	1	2
Technology			2	2
Elementary construction			1	1
Furniture making		1		1
Engineering		1		1
Hairdressing			1	1
Aquaculture		1		1
Motor industry			1	1
Boat building			1	1
Security			1	1
Rural contracting			1	1
Design		1		1
Total	11	20	54	85

Table 9 documents the National Certificates based on locality. The six rural schools offered more certificates and a wider range than the nine urban schools.

Table 9. National Certificates offered other than the NCEA, by school locality

Certificate	Rural n=6	Urban n=9	Total n=15
Computing	6	5	11
Employment skills	3	5	8
Tourism and travel	4	4	8
Hospitality	3	4	7
Business administration and computing	4	2	6
Mathematics	4	1	5
Electronics technology	1	4	5
Agriculture	3	2	5
Horticulture	1	3	4
Early childhood education and care		3	3
Equine	1	1	2
Forestry	2		2
Outdoor recreation	1	1	2
Science	2		2
Sport	2		2
Technology	1	1	2
Elementary construction	1		1
Furniture making	1		1
Engineering	1		1
Hairdressing	1		1
Aquaculture	1		1
Motor industry	1		1
Boat building	1		1
Security	1		1
Rural contracting	1		1
Design	1		1
Total	48	36	85

Other courses, programmes or qualifications offered in 2005

Schools also offered students a variety of programmes and qualifications other than those on the NQF. The types of programmes and qualifications are listed below.

Certificates

- Cambridge International Examinations
- Cisco Certified Networking Associate
- City and Guilds Certificates or Diplomas
- Internal, e.g., English
- International Computer Driving Licence
- New Zealand Association of Science Educators' Certificate
- New Zealand Institute of Management Certificates
- Pitman Institute Examinations
- University of Waikato Certificate of Studies

Distance learning

- University papers
- Papers through the Correspondence School
- Institute or University of Technology Courses
- Curriculum Alignment

Transition programmes

- Secondary Tertiary Alignment Resource (STAR) funded
- Gateway
- Modern Apprenticeship
- Mentoring
- Asdan Youth Award Scheme

Academy programmes

- Sport
- Trade
- Tourism/hospitality
- Transition
- Business
- English language
- Agriculture
- Technical

A range of alternative certificates or qualifications was offered and included the school's own certificate, such as English or mathematics, City and Guilds Certificates or Diplomas, Pitman Institute Examinations, Cambridge International Examinations, New Zealand Institute of Management Certificates and University of Waikato Certificate of Studies. In the computing area, the International Computer Driving Licence and Cisco Certified Networking Associate were popular. The New Zealand Institute of Management Certificate was also a popular qualification with students and viewed as being achievable by those who were not so academic.

Distance Learning programmes were available at a range of schools. These allowed students to study for university papers and a variety of the Correspondence School courses that were not offered at the school or were unavailable due to timetable clashes. One small, rural school cited correspondence study as essential, with students following a variety of courses such as

academic programmes, like languages, alternative courses, such as legal studies, or short courses. A few schools had set up curriculum alignment programmes with a local polytechnic to allow a smooth transition from secondary school to tertiary education in a particular industry.

All schools offered transition programmes where students were able to gain awards, be assisted by a mentor from the community or take part in a full-time transition course. Most schools obtained STAR funding from the Ministry of Education and had Gateway courses funded by the Tertiary Education Commission. Schools offered students a chance to gain unit standards and do work experience in an industry they have an interest in. Schools offered an extensive range of courses outside the school in workplaces or tertiary institutes or within the school. Courses included tourism, video production, electronics, carpentry, photography, and funeral directing. All schools emphasised the importance of STAR and Gateway funding and how it constrained the courses they were able to offer and for how many students. Some schools viewed these programmes as being for non-academic students, other schools made them available to all students. Students were usually in Year 12 or 13 and needed to be motivated and have a career interest. These programmes were seen as keeping students at school, and allowed them to gain credits towards qualifications. The programmes allowed a clear pathway for the student from secondary school to a particular industry and also allowed students to gain credits that contributed to the NCEA. There was also the possibility of being offered full or part-time work and students were able to experiment with particular careers. Two issues were noted by schools. The first was a need for cooperative staff since students were absent from class. One school also commented that if students earned credits for several unit standards at secondary school it would mean complications for them when enrolling in a course at a polytechnic as they may have already completed some of the standards.

Academy programmes were offered in a number of schools and included sport, business, transition, agriculture, English language, tourism and trade or technical. These programmes have a specific focus. Usually, students will have two or three lines of their timetable dedicated to the Academy subject, and also take related core courses. For example, in the trade academy, students take workshop in wood, metal industry applications and trades drawing, English, mathematics and science. Students are also able to gain unit standards that contribute towards a National Certificate. The Academy programmes were introduced to cater for specific groups of students such as talented sports people, and to prepare them for foundation courses at a tertiary level or for a particular career. Most programmes had been offered for a few years and were available for Year 12 and Year 13 students.

One school offered a Transition Academy. This programme was a fulltime course for students struggling to gain NCEA and who intended finishing secondary school in that year. Students had individual education plans and spent their time in a separate class with one fulltime teacher. For two days a week they attended STAR funded courses at school or polytechnic, and did work experience. The school found that the Academy gave students a clear career pathway and catered for those who were at risk of dropping out of school or leaving without qualifications. The programme was constantly evolving depending on the needs and interests of the students. Students reported doing work experience in a range of fields such as joinery, retail, journalism, dairy farming and building. They chose to participate in the Academy because it was career specific, offering them a good transition from secondary school to employment. The programme was also perceived to be less stressful than mainstream classes by the students.

Overall, schools reported that students were achieving qualifications in these programmes and had clear vocational pathways. One school reported that it would not consider offering

Academy programmes because they lead students to specialise too much, and it also cited staffing issues as a potential problem.

Other programmes, particular to different groups of students, included the Asdan Youth Award Scheme for slower learners, and teenage parents, gifted, learning needs, or boys' integration programmes.

Patterns in students' choice of courses

Staff were asked about noticeable patterns in students' choice of courses. In each school there was a range of courses that were popular and others that were losing student numbers. Those that were reported as having an increase in student numbers were alternative, interest or vocational courses, such as electronics, technology and trades, physical education and outdoor recreation, hospitality and tourism, and computing. The courses that were reported as losing students were traditional courses, such as music, social sciences and languages. In some schools technology was becoming more popular but in others the numbers studying it were declining. Staff were asked why courses were gaining or losing students and it was reported that the popularity of all courses varied year by year. Courses were thought to fluctuate in popularity based on the students' perception of the teacher. Popularity was also linked to the careers that students may have been interested in, whether students were achieving in the course and whether it was seen by the students as a fashionable course to study.

Influences in course provision

To help answer the main research question, whether senior secondary schools are promoting flexible pathways for students, it was useful to find out if schools thought that course design and pathways were becoming more flexible with the implementation of the NCEA. Schools were also asked what aided or constrained the provision of flexible courses, to try and establish which factors enable schools to be more adaptable with regard to course programming.

Course flexibility with the introduction of the NCEA

Staff were asked if they thought student pathways through the senior secondary school were becoming more flexible with the implementation of the NCEA, and why. They were also asked if their school was becoming more flexible in the courses offered.

The majority of staff reported that flexibility with regard to student pathways and course design had increased with the introduction of the NCEA. The reasons they gave for the increase fell into three major categories: needs of students, design of courses and qualifications gained. They reported that there was more flexibility in choosing standards (unit and achievement, both internal and external) to suit their students' interests and abilities. This was highlighted by courses such as Samoan and rural studies programmes being offered to cater for student needs. Flexibility was also found in the construction of courses; staff reported that they were able to be more creative and had more freedom in course design, for example with the environmental science courses and the combined humanities course. Finally, staff cited the actual qualifications that students were gaining as a reason for increased flexibility, as students were able to gain a range of National Certificates. Credits were also transferable between providers and tied in to transition programmes funded through Gateway and STAR.

Other comments from staff included the use of timetables or resources leading to an increase in flexibility. These staff reported that the NCEA in itself did not create more flexible pathways or courses, as flexibility was dependent on the school's timetable, staffing or other resources. Some schools commented that the size of the school played a definite role in how flexible they were able to be. Schools with a small roll were more able to keep track of students, what they were studying and the qualifications being gained. Some schools commented that they had had flexibility before 2002, which the introduction of the NCEA had not changed. These schools had always offered a range of National Certificates and other programmes such as modules. However, staff commented that with the NCEA, students' achievements were less restricted; for example, students were able to gain partial credits towards a National Certificate. Other schools asserted that there was no change in courses and no increase in flexibility with the implementation of the NCEA. A few staff reported that they had lost flexibility in course design as assessment was now driving the learning and standards were restrictive. Despite this, these schools thought that flexibility would happen once the new qualifications had been operating for a few more years.

Aids and barriers to offering flexible courses

Schools were asked what they considered to be aids or barriers to offering flexible courses. Distinct categories were noted and are shown in table 10. For each category, staff mentioned a number of aids and barriers. For example, staff could be helpful in offering a variety of courses depending on their own qualifications for without certain expertise or accreditation they would be unable to do this. A school's links with other stakeholders, such as employers and outside providers can also affect what courses they can offer. Schools also mentioned

parents' perception or lack of understanding of the NCEA system as being an issue. Tracking a student's qualifications was mentioned by several schools as a problem, though other schools used 'brickwalls' (a sheet divided into blocks of credits) or other methods to keep track of the standards and credits a student was achieving. While some staff credited the increased number of standards and certificates available to students as an aid, others cited too many courses as a barrier. Resources available to schools could also aid or constrain the courses that schools could offer and those mentioned included funding, time, facilities, administration and implementation costs and technology. Students were also mentioned, with those willing to take new courses praised while those making uninformed decisions were seen as a barrier.

All schools mentioned their timetable as providing a constant challenge to offering flexible courses. Schools had a variety of timetabling systems differing on the length of the timetable (five or ten days), and numbers of lines and periods. At one school, subjects such as science and technology had periods of 65 minutes, while other subjects had periods lasting 45 minutes. Timetables were predominantly student driven, with most schools offering students a free choice of subjects to study and then attempting to produce a timetable to reflect these choices. However, some schools used pre-established lines and the choice of certain courses in each line. Computer programmes were used to design timetables, but clashes were still common. To enable more flexibility in course programming, a few of the schools offered courses outside the traditional school day of 9am to 3pm. Schools noted that it was easier to fit courses to the timetable in a large school, as students could choose from a larger number of courses. One issue that was raised related to versions of subjects. Staff reported that if only one version of a compulsory course was available, this automatically restricted the optional courses a student could take. In some schools, lines of the timetable were split into academic or practical courses.

Table 10. Aids and barriers to offering flexible courses

	Aids	Barriers
Staff	<ul style="list-style-type: none"> • Qualifications, accreditation, expertise • Able to meet student needs • Willingness/ability to take multilevel classes • Adaptable and innovative teachers • Senior curriculum coordinator/curriculum leaders • Enthusiastic, proactive and supportive staff 	<ul style="list-style-type: none"> • Lack of qualifications, accreditation, expertise • Lack of guidance to students • Resistance to change, inflexibility • Traditional views • Small numbers of teachers • Increased workload • Lack of time to reflect/develop courses
Relationships with others	<ul style="list-style-type: none"> • Ties with other schools • Pathway programme/curriculum alignment • Links with outside providers • Willing employers • Support from Industry Training Organisations 	<ul style="list-style-type: none"> • Parents' lack of understanding of system • Socio-economic snobbery • Community expectations • Finance of families
Systems	<ul style="list-style-type: none"> • Tracking sheets/brickwalls • Individual education plans 	<ul style="list-style-type: none"> • Tracking qualifications/students • Versions of standards changing
Qualifications/ Courses	<ul style="list-style-type: none"> • Increased number of standards/certificates • Range of courses • Pure academic pathway • Courses viewed as valuable by staff and students • Opportunity to gain qualifications or employment • Extended accreditation 	<ul style="list-style-type: none"> • Too many courses • Pre-requisites • Where courses lead • Trends, e.g., fashionable courses • Compartmentalisation of subjects • Credibility and lack of understanding of NCEA • Assessment tasks • Depth of learning (broad vs specialised)
Resources	<ul style="list-style-type: none"> • Money • Facilities, e.g., farm, computers • Small classes • Time • Examples of best practice 	<ul style="list-style-type: none"> • Funding, e.g., STAR • Facilities, e.g., art, computers, specialist equipment • Classrooms available • Textbooks • Costs to students • Implementation/administration costs • Costs of software/equipment

	Aids	Barriers
Students	<ul style="list-style-type: none"> • Broad range of students • Communication between staff and students • Willing to give anything a go 	<ul style="list-style-type: none"> • Low ability students • Small numbers • Interest vs career • Lack of independent study skills • Interests/strengths • Perceptions/uninformed decisions
Other		<ul style="list-style-type: none"> • Weather • Time

Meeting students' needs

Staff were asked how they met the needs of students at their school, particularly how they know which courses to offer their students to ensure that they are tailored to their abilities and interests.

How schools identified the needs of their students with regard to course provision

Schools were asked how they identified the needs of their students. Most staff surveyed their students. For example, they asked what courses they wanted and what courses they enjoyed. New courses or changes to existing courses were made based on student achievement data and interest.

How schools met the needs of their students

Schools reported meeting the interests and abilities of students through offering a range of courses, standards and programmes, all of which have been detailed in previous tables that outline the various versions of courses, certificates and other programmes available. Staff were also asked what they considered were the strengths of their school in meeting the needs of their students with regard to course selection. The strengths mentioned fell into six broad categories: the school itself, courses, staff, students, resources and others. These are shown in table 11.

In the first category in table 11, schools' characteristics such as size and locality as well as aspects of school culture including flexibility, friendliness, and high achieving were referred to as strengths in meeting student needs. These strengths highlight the differences between schools in this study where traditional values and affluence are prized in some schools and being progressive and innovative are viewed as strengths at others. Programmes for specific students and a timetable that adapted to student choice were also noted as strengths of schools.

Offering a variety of courses was put forward as a definite strength by schools with the wide variety of programmes and qualifications available to students reported as a key factor in meeting students' needs.

Staff qualities that were noted as strengths related to flexibility, for example, being innovative, responsive, and willing to introduce new courses. Experience and stability in staff were also viewed positively. Stability was also noted as a strength by staff when referring to students. Retention could in turn reflect the quality of the school experience for students and the school's ability to provide courses and programmes that interest them. Students with diverse interests and those willing to be placed in a course that was appropriate to their abilities were reported as strengths, although these are areas where schools may struggle with some students. Staff also mentioned as strengths students that were aware of the course choices available to them and who were motivated to learn.

Other strengths noted by schools included offering papers through the Correspondence School and video conferencing, both especially important to rural schools, and those in the community such as families.

Table 11. Schools' strengths in meeting student needs

Category	Strength
School	<ul style="list-style-type: none"> • Size • Progressive, innovative, flexible culture • Multicultural • Community/whānau based • Supportive, friendly • High achieving, affluent • Traditional/strong values • Good reputation • Locality • Specialist programmes, e.g., learning support, teenage parents, gifted • Student driven timetable
Courses	<ul style="list-style-type: none"> • Broad curriculum/varied courses that lead to qualifications • Wide choice of National Certificates • Flexibility • Differentiated programmes • Individual programmes • Multilevelling • NQF/NCEA • Transition courses, e.g., funded through STAR, Gateway • Other programmes, e.g., Academies, Youth Award Scheme • Open to unit standards • Modular courses, e.g., careers • Work experience • Cater to student interests
Staff	<ul style="list-style-type: none"> • Supportive, willing to try new courses • Stable • Experience and knowledge • Good direction from the principal • Innovative • Management, Faculty Council • Pastoral care • Training • Responsive • Quality teaching
Students	<ul style="list-style-type: none"> • Well informed about choices • Good role models • Continuity/retention of students • Outdoor orientation • Diverse/different interests • Proactive and motivated • Willingness to be in appropriate class

Category	Strength
Resources	<ul style="list-style-type: none"> • Facilities • Video conferencing • Correspondence • Computers/network
Other	<ul style="list-style-type: none"> • Family/community support • Regional industries • Parents • Region • Board • Tracking systems for qualifications

Advice to students regarding course and career selection

Another strength mentioned by several schools was the advice and help that schools gave to students about courses and careers. Schools advised students to follow their interests and to keep their pathways open. To help students in their decision-making, several aids were available, including the school's curriculum handbook, career planning and course selection interviews, career modules, brochures and information from providers, computer programmes and career taster days.

Course information booklets varied from school to school. Some were highly detailed, while others lacked specific information. For instance, descriptions for a particular course, certificate or programme could contain information in the following categories:

Learning

- General information on what the course is about, e.g., content, skills.
- Student feedback on the course.
- Fieldtrips.
- Possible projects or competitions.
- Out of class activities.

Assessment

- Qualifications gained, e.g., NCEA level, number of credits or National Certificate.
- Standards studied, e.g., achievement or unit, internal or external, level, title, standard number, number of credits.
- Strand or tier, e.g., academic, standard or foundation course.

Course Planning

- Entry requirements or pre-requisites for the course.
- Where the course may lead, e.g., career or further study.

Administration

- Costs.
- Contact teacher.
- Specialist equipment needed.
- Length of course, e.g., hours per week, full or part year.

For some students, all the information they required to make course decisions was included in the course information booklet. For other students, there was limited information, but contact information for teachers and career advisors was provided. Overall, students had access to a wealth of information regarding course and career selection from a variety of sources. Their views on course and career advice are reported in the following section of this report.

School's philosophy on programme organisation and availability of courses

As a discussion starter, staff were asked about their overall philosophy on programme organisation and availability. The majority of schools asserted that they aimed to meet the needs of their students, tailoring courses to different interests and abilities and catering for their academic and social needs. Schools also aimed to provide courses that were meaningful for their students, that lead to a specific destination – either employment or further study – and the gaining of appropriate qualifications. Finally, schools wished to provide clear pathways for students throughout their secondary education and beyond.

Students' perceptions of course choice

For an overall picture of how schools are promoting flexible pathways, it was essential to speak to some secondary students. Several topics were discussed including reasons for studying and dropping a course, advice students received about course and career selection, post-secondary school plans and relevance of courses.

Reasons for favouring a course, choosing to study a course and dropping a course

Students were asked to think about which course they were studying or had studied in the senior school was their favourite and why. Table 12 ranks the most common reasons that students gave for why a course was their favourite according to how many times the reason was mentioned by a particular group of students. For example, 17 of the 24 groups of students reported that the reason a subject was their favourite was because it was fun or enjoyable, receiving the highest ranking for this question. Students were also asked about their reasons for choosing to study a course. Table 13 ranks the reasons they gave for why they chose to study a course. Finally, students were asked why they chose to drop a course and the results are shown in table 14. The most common reasons that students gave for why a course was their favourite (fun, enjoyable, interesting, practical and creative) differed from the reasons they gave for actually choosing courses, which related to future plans such as needing the course for further study or a career. Doing well in a course and being able to achieve was the fifth most common reason that students gave for why a course was their favourite. However, it was the second most common reason for choosing to study a course.

All students emphasised the importance of their teacher. The teacher influenced why a course was a student's favourite, whether they chose to study a course and, most importantly, why they chose to drop a course. Having a teacher they did not like or learn from was the most common reason why students dropped a course, and the teacher was the fourth most common reason why they chose to study a course. Other reasons given for dropping a course were not achieving well or not needing the course for future life. Overall, the following were most likely to influence a course's popularity or reason to be studied or dropped: enjoyment and interest in the course, level of achievement in the course, whether it was needed for further study or a career, and who taught the course.

Table 12. Reasons students gave for why a course was their favourite

Rank	Reason
1	Fun/enjoy
2	Interesting
3	Practical/active
4	Creative/choice
5	Achieve/do well
6	Teacher
7	Relevant/apply to real world
8	Study/career
9	Easy/understandable
10	Different/new information
11 =	Challenging
11 =	Internal assessments
13	Relaxed atmosphere
14 =	Low workload
14 =	Logical

*Note: n=24 groups of students

Table 13. Reasons students gave for choosing to study a course

Rank	Reason
1	Study/career
2	Achieve/do well/easy
3	Fun/enjoy
4 =	Teacher
4 =	Interesting
4 =	Carry on/follow through school
7	Broad/flexible course/keep options open
8	Assessments
9 =	What's available/only subject left
9 =	Relaxed class

*Note: n=24 groups of students

Table 14. Reasons students gave for dropping a course

Rank	Reason
1	Teacher
2	Didn't do well/not achievable
3	Don't need for career/study
4 =	Didn't fit timetable
4 =	Difficult/too hard
4 =	Didn't enjoy/not fun
7	Not interesting/boring
8	Not available at year level
9	Not challenging

*Note: n=24 groups of students

Advice students received about course selection and from whom they received it

Students were asked from whom they received advice about courses to study and about potential careers or future study options. Table 15 sets out the range of people and resources students in each group received advice from, or sought information from, regarding course and career decisions. Students mentioned different people and resources, the most frequently mentioned being careers advisors or guidance counsellors, teachers and family members. Websites, career test programmes completed on a computer and a school's course selection booklet were also commonly mentioned as sources of information. Students were also likely to seek or receive advice from students who had left secondary school, and who therefore had experience in particular courses or study options, and from friends. When asked who gave them the most important advice, or to whom they would listen the most, students reported that, overall, teachers, family and the career advisor were the people whose advice they valued the most. They reported that it was useful to have someone who gave them another perspective and who knew them well. Students commented that they wanted their parents' support and approval, but all students reported that, at the end of the day, the courses they studied and the career decisions they made were their own choices.

Table 15. Sources of advice for students about course and career selection

Advice from		Frequency mentioned
School staff	Career advisors/guidance counsellors	24
	Teacher	21
	Dean	6
	Head of department	2
	Curriculum coordinator	1
School resources	Course selection book	11
	Career expos	8
	Career modules	6
	Subject/career evenings	4
	Newsletters	1
	Career rooms	1
Outside providers	TV/Internet/computer programmes	15
	University liaison officers	12
	University/other institution brochures	3
	Recruiting officers	1
	Employers	1
	University/polytech open days	1
Others	Family	24
	Ex-students/older students	12
	Friends	11
	Word of mouth	2

*Note: n=24 groups of students

Students were asked about the advice or guidance they had been given regarding courses to take or careers to pursue. The most common responses were to choose a career or course that interested them and that they also enjoyed. They were encouraged to do what they wanted and to think about the career they wanted to follow. Students also mentioned that they were frequently advised to keep their options open, to keep their course selections broad and explore their options, and to have a backup plan. Other advice mentioned by a few of the students varied greatly, for example:

- Have a gap year versus go straight to university.
- Stay at school.
- Get a job versus go to polytechnic versus get into a trade or an apprenticeship.
- No specific advice was given versus students were told what to do.

Overall, although some students reported that they felt very informed about their course and career options, others did not feel informed at all. They commented that parents could be negative, supportive or disinterested

The advice that students received about course selection and career opportunities, and the sources of advice, varied immensely. In general, family, careers advisors and teachers were the main sources of advice. Advice given was to follow interests and be flexible.

Expectations of students to go on to tertiary study

Students were asked if there was an expectation that they would go on to further study, and if there was, where the expectation came from. Students replied that there was an expectation that they would go on to tertiary study, and this was especially prevalent among students who were top achievers. The expectation came from a variety of sources and varied depending on the student involved, and came from school, parents, friends, society in general, and from the students themselves. Some students commented that they had always wanted to go on to tertiary study while others said that if they wanted a good career and to earn a lot of money they needed to go to university. They reported that some teachers and parents encouraged them to think about university study. Other students reported negative aspects as they felt under great pressure to decide on a career and to go on to further study. These students reported that they experienced huge expectations and believed that they should know what they were going to do when they finished secondary school. Overall, students thought there was an over-emphasis on going to university. Pressure to do this was felt when they started secondary school, but intensified when they entered the senior school. In line with these findings, the majority of students were planning to attend university, polytechnics or teachers' college when they had finished secondary school. Other options that students were planning included taking a gap year, finding employment or joining the armed forces. Some students had no firm plans or a preferred career path while others had always had a particular career in mind.

Relevance of core courses

Students were asked how relevant they thought the courses they studied would be for life beyond secondary school. At all the schools, students were required to study core courses (English or te reo, mathematics, science and/or physical education) in Year 11 and Year 12, and were asked if these courses should be compulsory. Most students believed that English, mathematics and science should be compulsory because they were needed for general knowledge and essential skills and kept their options open to study courses in Year 12 and 13. However, although they believed that they should be compulsory at Year 11 because they were not old enough to make decisions about which courses they needed for their future, students were adamant that they be allowed to drop them after Year 11. Nevertheless, a substantial number of students thought that only English and mathematics should be compulsory, as they required essential numeracy and literacy skills. Some students felt that science should not be compulsory, as it was deemed to be a more specialised course, only needed for particular careers and one student thought that low achievers should not have compulsory courses. Students thought that physical education (e.g., sports science, outdoor recreation or a physical education module) should not be compulsory as they were able to take part in exercise or team sport outside of school. However, they thought it should be encouraged as it gave them a good break from their studies and balance to their school programme.

Students gave many examples of learning skills or knowledge that they acquired during their secondary school careers which they believed they would never need beyond school. They thought the relevance of studying a particular course was dependent on their post secondary school plans. Some students thought that certain courses were relevant because they led to university study but would not be needed in life in general. One group of students commented that teachers did not tell them why a course was relevant. Overall, students saw secondary school as a place to give them a broad general education.

Discussion

Main findings and comparison with previous research

The *Changing Course* preliminary investigation aimed to examine whether secondary schools are promoting flexible pathways for students. The majority of schools sampled had made various changes to their senior courses over the last three years of NCEA implementation, including mixing a range of standards across levels and subject areas. Schools offered the most courses at Year 12 or level 2 and, in most cases, the number of courses offered increased with the size of a school's roll. Students were also offered different versions of courses at each NCEA level, with the most versions offered in science courses. Versions differed by credits and standards offered, and the content of the course. Schools were committed to the NCEA, but there was an increase in the offering of other National Certificates. On average, schools offered six National Certificates, the most popular being in computing and tourism. Co-educational schools and those in rural areas were found to provide the widest range of National Certificates. Overall, most schools reported an expanded curriculum with new courses introduced. These findings are in line with those from NZCER's *Learning Curves* reports on trends in subject choices which have also shown that schools are being innovative in the range of courses they are offering, for example in the versions of core courses available, combinations of courses and standards, and multilevelling opportunities for students. The *Learning Curves* reports also noted that in urban schools students were studying more traditional curriculum subjects and in rural schools a wider variety of National Certificates was offered.

The majority of schools believed that the implementation of the NCEA had increased flexibility with regard to course design and student pathways. Reasons cited for this increased flexibility included more creativity in designing courses using a range of standards, and being able to cater for a range of student abilities and interests. The qualifications that students were able to gain, such as earning credits towards the NCEA and other National Certificates concurrently, was another reason put forward for increased flexibility in courses and pathways. Different aids and barriers to offering flexible courses were also identified. These included timetables, staff qualifications and commitment, resources such as technical equipment and government funding, student adaptability, course and qualification opportunities and relationships with others in the education sector and community. These findings are also reflected in the *Learning Curves* study where the constraints to flexibility in course provision were identified as teachers, timetables and class size. Students in that study report the non-availability of courses and timetables as restricting their course choice whereas in the *Changing Courses* investigation, they cited the size of the school or the school culture as restricting course choice.

All schools were committed to meeting a range of student needs with regard to course provision. They did this by offering different versions of courses and a range of programmes that included international certificates, distance learning, academies and transition courses. Government funding for STAR and Gateway courses was also popular and cited as essential for providing qualifications and specific pathways for students. Schools identified the needs of their students by surveying them and studying previous achievement or interest in the course. They reported a range of strengths to meet student needs including school characteristics such as size and culture, specialist programmes, experience of staff, student retention and resources. These findings are similar to those of Boyd, McDowall and Cooper's (2001) study which investigated innovative programmes for students at risk of low educational achievement and poor transition to further

study or employment. According to Boyd et al, features of successful programmes include an emphasis on gaining qualifications, core literacy and numeracy skills, practical aspects, clear pathways and skilled teachers. These were found in the programmes cited in this investigation, such as the Transition Academy, which catered for students at risk of leaving school without qualifications or a clear post-secondary school destination. An earlier study by Marshall (1999) focused on 15 schools that had introduced curriculum changes such as subject integration, a focus on essential learning skills and unconventional faculty and timetable organisation. These innovations are continuing with the schools in the present study as shown by flexible timetables and the introduction of new programmes for specific groups of students such as the rural studies academy.

In this investigation, the courses that students chose to study varied extensively, reflecting the diverse student populations and their interests and abilities. Staff reported yearly fluctuations in course popularity, but the more vocational courses such as outdoor recreation and tourism were reported as having an increase in student numbers and the more traditional courses such as languages and social sciences were thought to be losing students compared to previous years. The most frequent reasons that students gave for choosing a course were career or study aspirations. Likelihood of achieving in the course and enjoyment were the next most cited reasons. The reasons why a course was a student's favourite differed from the reasons for choosing a course. Enjoyment was the number one reason for favouritism, with study or career considerations ranked number eight. In the *Learning Curves* study, students' course choices were also based on future plans and enjoyment of the course, with parental advice also contributing to their decision. Students chose to drop a course because of the teacher, their prior achievement in the course and not needing the course for their future career or study. Another study by Baird, Ebner and Pinot de Moira (2000) found that students dropped a course because they planned to, because they had not achieved well in it, or because it was not needed for the future. Overall, a student's achievement in a course appears to be a crucial factor for whether they chose to continue to study it or to drop it. This highlights the importance of students being placed in courses that they are capable of completing successfully.

Students reported receiving career advice from a range of sources including career advisors, teachers, family members, course selection booklets, Internet or computer programmes, university liaison officers and career expos. Overall, students reported that they received varied career and study advice and that they were most likely to heed advice from teachers or parents. Course information booklets proved to be a useful resource for students and content varied extensively from school to school. Boyd, Chalmers and Kumekawa's (2001) study investigating young people's post-secondary intentions and destinations found that university brochures, family members and school advice were important to students when making career decisions. In another study (Boyd, McDowall & Cooper, 2001), students spoke of the importance of their subject teachers in assisting them with their transition decisions through activities such as organising visits to tertiary institutions and apprenticeships. This finding was echoed in the *Changing Courses* data with several students mentioning their teachers as being very helpful. However, all students asserted that their course and career decisions were ultimately their own choice.

From this preliminary investigation, it does appear that secondary schools are promoting flexible pathways for students. Most schools have expanded their curriculum, offering students a wide range of courses and National Certificates. Some schools are being more innovative than others

in their course design, offering new courses made up of a combination of standards, and making changes to their timetables to accommodate students. With several versions available, courses are more tailored to students' needs and more structured pathways exist from one level to another. With the implementation of the NCEA complete, schools reported that it would now be time for consolidation. They would be reviewing what courses they offer and how they met the needs of their students. Schools also reported that they would be reviewing statistics on the NZQA website to find out where students were or were not successful in gaining credits and certificates. It may be that in the next three years, further changes will occur and more courses will be modified.

Issues of course provision and the NCEA

During the discussions with staff and students, several issues were raised regarding course provision and the NCEA system in general. Several themes emerged from the data that could be explored in future research.

The NCEA qualification

The NCEA system was praised by staff and students for allowing students to gain qualifications. This is in keeping with findings in the *Learning Curves* reports where schools were pleased that students were working towards the same qualification regardless of the different types of skills (academic or vocational) they were acquiring. Schools also noted an increase in flexibility with the NCEA, which was also found in the *Changing Courses* investigation data. Students were pleased to be earning credits and liked the internal component of the assessments. However, some students lacked confidence in the marking system and would have preferred results in percentages. Other concerns related to the implementation of the system and that assessments were driving the learning in the classroom. Both students and staff commented that workload was an issue. A perceived increase in workload is also noted in the *Learning Curves* reports, the recent *PPTA* report (Alison, 2005) and the Secondary Teacher Workload Study Report (Ingvarson et al, 2005) prepared by the Australian Council for Educational Research for the Ministry of Education. In all these reports teachers indicated that this was a noticeable disadvantage in the implementation of the NCEA with administration tasks being the area of main concern.

Is it realistic for all students to gain a level 1 NCEA?

The majority of staff spoken to indicated that all students, apart from those with severe learning difficulties, were capable of achieving a level 1 NCEA. This was in stark contrast to the perception of a 50 percent pass rate with School Certificate where staff reported that many students were unlikely to achieve. Staff reported that it was unrealistic for some students to complete the level 1 NCEA in one year, but with the right course and combination of standards, they would be able to meet the requirements of a level 1 certificate over more than a year. In one school the aim was for all students to achieve a recognised qualification by the end of Year 11. Students in this school began being assessed for standards and gaining credits in Year 9, allowing three years to gain a level 1 NCEA. Teachers at this school believed that many standards were attainable by students before they reached Year 11. In summary, schools believed more students were gaining qualifications since the implementation of the NCEA.

Difference between unit and achievement standards

Staff reported a perception from parents and students that unit standards were inferior to achievement standards. In line with this opinion, some students reported that unit standards were easier than achievement standards and indicated that achievement standards were better. The reason for this belief was the emphasis placed on achievement standards contributing to University Entrance. A few students indicated that unit standards were a 'dummy qualification'. This perception appeared to originate from the marking system of unit standards and their frequent occurrence in practical courses. A few students reported that unit standards were harder to gain than achievement standards and required more work, while others reported that there was no difference between them. Staff attributed the distinction between the two types of standard to the disparity between credits. Students were able to earn more credits in unit standards in less time. Staff commented that this discrepancy between credits and standards needed to be resolved. Other staff reported that unit standards could be equal in difficulty to or more difficult than achievement standards since students must complete all elements of the standard correctly. One staff member commented that unit standards suited students who are more practical while achievement standards suited ones who are more academic. These findings are in line with those from the *Learning Curves* research and the PPTA report on teachers' views of the NCEA. The latter report details a range of views on the differences between standards and recommends that credit values of standards be reviewed and changes made based on workload. These differences in opinion on aspects of standards may reflect individual schools' overall views of the value of unit standards and how readily they have adopted them and other National Certificates. In the final *Learning Curves* report, students in focus groups gave achievement standards slightly greater value than unit standards, due to the contribution of these standards to University Entrance. Staff in this study were mixed in their views, some reporting that unit standards were easier than achievement standards and therefore of lesser value, while others believed the standards were similar in difficulty so did not consider the two types of standards to be an issue with designing courses.

Status of National Certificates

Some staff felt that National Certificates other than the NCEA were for low ability students. However, the majority of staff commented that this perception was misguided. They indicated that all National Certificates were equal in value and were meeting the range of abilities and interests of students. Students commented that the main focus was the NCEA but those studying towards other National Certificates indicated that they believed there was no difference between the certificates. Staff commented that with all credits earned contributing to the NCEA, other National Certificates had increased in status. A few schools that offered a low number of National Certificates reported that they were primarily for less able students. The National Certificate of Employment Skills (NCES), which focuses on core skills, was offered by two thirds of the schools in this investigation. Schools viewed this certificate as being for lower achieving students. One school believed the NCES to be obsolete and that the emphasis was now on the NCEA level 1 (over more than one year and a predominantly unit standards course) for this group of students. Overall, some schools had adopted a range of National Certificates and viewed them as giving students a chance to gain qualifications and pursue career pathways. A few schools offered a limited number of National Certificates and considered them to be for low-ability students.

Credit collecting

Some staff reported that students were selecting which standards to attempt, choosing to meet only Achievement level criteria, and selecting courses with high numbers of credits available. They reported that students were not motivated to gain Merit or Excellence levels in a standard. This was attributed to the fact that these higher achievement levels were not rewarded with more credits. Students were divided on this issue. Some admitted that they were happy to gain 'Achieved' and were not vying for the higher levels, as they were not worth extra credits. However, many students aimed to achieve the higher levels, and those who were high achievers commented that they felt disappointed if they only gained 'Achieved'. Others commented that their motivation to achieve top marks was related to the course in question and whether they needed high marks for future study or career options. These findings highlight the importance of course choice on student motivation and achievement, and were similar to those in the final *Learning Curves* report. In this study some students were motivated by credit values, although a tenuous relationship for students appeared to exist between learning and credit values. The differences in opinions from students in this study indicate that several factors can contribute to this type of credit focus of students with the researchers noting course choice as one of them.

The third *Learning Curves* report also found that some students were making calculated decisions when choosing which assessments to attempt and which to skip, with some staff expressing annoyance at this trend while others were not concerned if students had a valid reason for skipping the assessment.

Gender

Throughout interviews with staff and students, comments were made about gender. Several staff reported that fundamental differences existed between how boys and girls learned. An example offered was in technology. The achievement standards in this area were criticised for requiring too much written work in comparison to practical work. Staff reported that females had better communication and literacy skills and enjoyed designing models, whereas males had a more step-by-step way of learning and enjoyed 'hands on' or practical activities. This sentiment was echoed by the male students themselves. They asserted that they learnt in different ways to their female colleagues and disliked the amount of writing needed to complete the standards. In relation to course choice, girls at one school complained that they were not encouraged to study courses such as building or agriculture. Although schools reported that students did not stick to what could be considered 'traditional' male or female courses, courses such as building were more popular with males and courses such as textiles were more popular with females. This was also evident in the National Certificates offered in schools with girls' schools offering early childhood qualifications while their male counterparts offered forestry and agriculture. Comments were also made with regard to credit collecting, with several staff reporting that boys were happy to earn 'Achieved', while girls put in more effort trying to earn 'Merit' or 'Excellence'. Overall, schools admitted that gender was not an issue for course provision, with individual preference being paramount.

Career/course choice issues

Staff were divided on the issue of whether students could have too much course choice. Some believed that there could never be too much choice, as a range of courses gave students the chance to tailor programmes to their interests and needs, and allowed flexibility in programme design. Others believed that there could be too many courses available which could overwhelm or

confuse students. Problems with tracking student qualifications and with adequate staffing were a concern, as well as students studying courses without a definite career or study path in mind. Some staff cautioned about offering too many courses, citing the rationale behind choosing the course as being important and that a mixture of courses was needed. Overall, course choice was restricted by the size of the school and availability of staff.

One school approached course choice quite differently. It had a unique pathways model for students whereby courses are split into essential learning areas that are compulsory for the first three years of secondary school. This programme is relatively innovative in its approach to course choice and qualifications, with students receiving a broad, general education for the first three years of secondary school. However, with students having a limited choice of courses, many reported that they were not pleased to be studying courses they had no interest in.

Staff were also questioned about the role of secondary schools. In line with student opinion, staff confirmed that they were there, firstly, to educate students and give them a broad general education covering essential skills and, secondly, to prepare students for a career.

One pattern noted by school staff was an increase in the number of high achieving students choosing to study an 'interest' subject. This refers to a course that may not contribute to University Entrance qualifications and may be more practical in nature. Some staff were not pleased with this trend as students were missing the chance to gain valuable credits towards their University Entrance. Other staff asserted that it was good for students to have a break from their more demanding courses and to follow their interests. In line with this trend, staff spoke of 'alternative' pathways and courses. These courses were more vocational or practical in nature, with fewer standards, or those with STAR or Gateway funding. In certain schools, the majority of students were likely to be in these courses and would be going on to fulltime employment or a course at a polytechnic. However, in other schools, staff reported that most students studied the versions of courses with high numbers of achievement standards and would be going on to university study. Overall, the definition of a mainstream or alternative pathway differed in each school and depended on factors such as the student population and wider community. Some staff reported that a certain elitism exists, not only in secondary schools but also in the perception of the wider population, in that certain courses are given higher status and that university is the preferred post-secondary school destination. Those students who were high achievers reported that they were expected to pursue tertiary study with several experiencing pressure to make career decisions. In summary, all courses and pathways do not appear to be given equal status in secondary schools.

In the area of career decisions, there appears to be conflict between keeping course options open versus providing a structured pathway that leads to a specific career destination. Boyd and McDowall (2004) reported tension between these two options, which they referred to as 'exploration of choice models'. Used by schools to assist young people in their career decisions, the first model sees schools allowing students to sample a range of careers, while the second involves established pathways between schools and tertiary courses or apprenticeships. Tensions are thought to arise as one model might suit one student while the other better suits another student. It is unclear from this investigation whether schools were using these models, though most had a number of transition courses, opportunities for apprenticeships, and a wealth of information on courses leading to specific tertiary courses and career destinations. Students reported receiving varied advice from teachers and careers advisors, the most common being to

choose courses and careers based on what they enjoyed and to keep their options open. Staff acknowledged that it was a huge challenge for students to find a particular pathway. While some students were very clear about the courses they were studying and careers they wanted to pursue, others were unsure of their future plans. All students reported that the core courses of English, mathematics and science were needed for whatever career they aspired to. Overall, the advantages and disadvantages of keeping students' options open and having more structured pathways need to be explored.

Further research

The changes in course design found in the 15 schools in this small-scale investigation may not be typical of schools throughout New Zealand. It is not known how widely practices such as offering a range of National Certificates and alternate versions of courses happen in New Zealand. As this study was limited in scope, topics such as where particular courses and certificates lead students and patterns in standards being studied were not investigated. The following questions could be asked in a further study:

Trends in courses

- What are the noticeable patterns of standards and certificates students are achieving? Are courses gaining or losing popularity?
- The role of student demographics. How do entry patterns change by gender, ethnicity, decile, etc?
- Are the role of National Certificates and the status of unit standards changing?
- Patterns in student subject and qualifications. What are the main trends and where do different combinations lead?
- What are the mainstream courses and pathways (e.g., how many students go on to university?) and how mainstream are they? Is the notion of ‘mainstream’ changing?

Future plans

- How do the changes in courses (versions, combining standards) affect the pathways of students moving through secondary school?
- What factors enhance positive transitions from secondary school to further education and employment?
- Where do certain courses and qualifications lead?

Career advice

- What advice are students receiving about careers and what resources are available to them?
- Are students receiving sufficient information relating to the courses and certificates they need to be studying at school that lead to a particular career?
- How does the language in course information booklets (e.g., ‘unlikely to pass’ or ‘have difficulty with’) impact on students’ views of each course and whether they will choose to study it?
- Do schools follow specific ‘exploration of choice’ models?
- What are the prevalent assumptions and associated advice about which courses students should be placed in, e.g., the view that those following STAR funded courses should do a particular type of English course (unit standard based)?

Students’ experiences

- Experiences of students in alternative, low achieving or vocationally oriented programmes.

Government’s role

- What changes or initiatives in policy can NZQA and the Government make to ensure that pathways are more flexible through secondary school?

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Appendix 1. Information sheet for schools

Data collection for schools

Thank you for agreeing to participate in the *Changing courses* project. Part of this study involves collecting selected documents from your school. We are interested in information students receive relating to subjects and courses available at your school, guidance for selecting subjects, and qualification tracking documents. This information relates to the senior secondary school only. It would be useful for our meeting if you could gather documents that relate to the following areas.

Useful documents could be:

1. School prospectus for 2004 and 2005, and/or course/subject information booklet for senior school.
2. List of national certificates available other than the NCEA.
3. List of programmes available, eg STAR, Gateway, Academies.
4. Written advice/guidance given to students regarding subject selection.
5. School policy or curriculum plan describing the organisation and availability of courses.
6. Examples of student tracking documents regarding standards and certificates achieved.
7. Any other relevant documentation relating to course availability, subject choice, or guidance provided to students.

This study involves discussions about the extent to which schools are providing flexible pathways along with factors that aid or hinder these pathways. We would like to know what issues your school faces when it designs its senior secondary programme. The following questions are designed to help you think about these matters and to prepare for the interview.

Thinking questions:

1. What are the noticeable changes in courses your school is offering since the introduction of the NCEA/NQF?
2. Are pathways through senior secondary school becoming more flexible with the new assessment system? Why or why not?
3. What aids or barriers are there to offering flexible courses (eg resources, timetables, funding, availability/qualifications of teachers etc)?
4. Are there noticeable changes in patterns of student enrolments since the implementation of the NCEA/NQF?
5. What proportion of students follow each of the main pathways?
6. In what ways does your school try to meet the range of student needs in the senior secondary school?

Appendix 2. Questions for interviewees

Changes in courses

1. What is your school's philosophy on programme organisation and availability of courses?
Prompts: maximum flexibility, meet student needs, broad/general education paramount etc.
2. What courses, programmes, combinations of standards or pathways are available in your school? [Covered in course selection/information booklet? Questions specifically related to course selection booklet?]
3. Has your school made changes to the core subjects of mathematics, English and science since the NCEA has been introduced? Are these subjects compulsory at any levels?
4. What qualifications/certificates does your school offer other than the NCEA?
Prompts: National Certificates, Industry Based Courses, Academies
5. Status of National Certificates, eg just for lower ability students?
6. Have you introduced any new or innovative courses or combinations of standards in your school since the implementation of the NCEA? Are you considering introducing new courses or combinations of standards next year or in the near future? Have any courses or standards been dropped?
7. What prompted these changes?
8. Have you made any changes to any of your courses since the implementation of NCEA? Are you considering making any changes to your courses for next year or in the near future? Why or why not?
9. Are there any issues surrounding your course in relation to flexibility?
Prompts: timetable issues, availability of staff, student numbers.

Patterns in students' choices of courses

10. What are the noticeable patterns in courses and/or standards students are choosing to do in the senior secondary school?
11. What proportion of students follow each of the main pathways? Do students stick to purely academic or vocational pathways? Eg practical/trade=employment; mid ability=polytech; academic=university?
12. What are the popular courses with high student numbers? What courses are losing students? Why do you think this is?

Student needs

13. How do you decide what combinations of standards or courses to offer your students? How do you identify and try to meet their individual needs? Are multi-level options available for students?
14. How do you decide which students can take your course? Do you have any restrictions to entry to any of your courses? What are they?
15. How do you decide what combinations of standards to offer your students? How do you identify and try to meet their individual needs?
16. Are any students excluded from taking certain courses? Why or why not? Who decides this?
17. How do you keep track of the courses students are taking and qualifications they are achieving?

Aids and barriers

18. What do you consider are the constraints on student choice?
Prompts: school organisation, resourcing, school culture, availability/qualifications of teachers, timetables, student's ability, etc.
19. What aids are there to offering specific courses or combinations of standards?
Prompts: school organisation, resourcing, school culture, availability/qualifications of teachers, student's ability, etc.

Career Advice

20. What role do you play in informing students about possible pathways?
21. How do students receive information about available pathways? What form does the information take, eg booklet, interviews? How effective do you think these methods are?
22. What information do students receive about standards/courses that are available and pathways that they may be able to follow? When do students receive this information?
23. Are any alternative programmes offered at your school, eg STAR funded or Gateway?
24. How well informed do you think students at your school are about what options are available to them? Do students have courses on careers, eg CV skills?
25. How could students make more informed decisions about pathways to follow through secondary school and beyond?

Timetables

26. What is your timetable structure? Why did you choose this structure? How do you fit courses to your timetable?
27. What barriers are there to offering specific courses or combinations of courses?
Prompts: school organisation, resourcing, school culture, availability/qualifications of teachers, students ability, etc.
28. Has your school considered any options for increasing the flexibility of courses offered and/or the flexibility of the timetable itself? What are these?

Conclusion

29. Do you think student pathways through senior secondary school are becoming more flexible with the implementation of the NCEA? Why or why not?
30. How well do you think your school caters for course choice for senior secondary students? Why?
31. Do you believe your school has any particular strengths or weakness in providing flexible pathways and meeting student needs?
32. Do you approach course selection differently as a boys/girls/co-ed/rural, etc school?
33. How would you describe the character of this school?

Appendix 3. Questions for secondary school students

Discussion starter

1. I am going to give you a minute to think about which course you are studying at the moment is your favourite and why.
Ask each student in turn to give their answer. Discuss with the group what the most frequent reasons for choosing subjects is and reasons for the courses favouritism. Use a white board or paper/felts.

Patterns in course choices

2. What other courses are you studying and why?
3. What certificates or programmes other than the NCEA are you studying?
4. What do you enjoy most about the courses you study?
5. Are there other courses or programmes you would like to study but do not? Why are you not able to study them?
6. Why do you drop a course?

Reasons for choosing courses

7. How did you decide what courses to study? *Prompts: subject is easy, do well in the subject, enjoy learning, friends do the subject, teachers/parents suggested I do it, wanted to try something new.*
8. How well do you think your school caters for what you want to do at school and when you finish school?
9. Have you been consulted by school staff about the courses/combinations of standards you want to study, eg surveyed by teachers?

Advice about course selection

10. What advice or guidance have you been given in regards to courses to take and pathways to follow?
11. Who gave you this advice?
12. When did you get this advice?
13. Who is the person who gave you the most salient/important advice? What was it?

Post-secondary school plans

14. What are you planning to do when you finish secondary school?
15. How relevant do you think the courses you study will be for life outside of secondary school?
16. Is there an expectation that you will go on to further study? Who does this come from?
17. How would you describe the character of this school?

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