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TABLE OF CONTENTS

TABLE OF CONTENTS.....	ii
Acknowledgements.....	1
1. EXECUTIVE SUMMARY	3
2. INTRODUCTION	9
3. LITERATURE REVIEW	14
3.1 Background.....	14
3.2 Course choices	15
4. RESEARCH DESIGN AND METHODS	26
4.1 Data collection and analysis	27
5. RESEARCH PARTICIPANTS.....	30
6. FINDINGS.....	36
6.1 The NCEA context: Perceptions, understandings, practices and challenges	36
6.1.1 What students, parents and teachers think about NCEA.....	36
6.1.2 What parents know about NCEA.....	43
6.1.3 What students know about NCEA	49
6.1.4 Sources of information on NCEA	52
6.1.5 Changes and challenges facing teachers and schools	56
6.2 Who is making NCEA course choices?.....	58
6.2.1 Parents making decisions	59
6.2.2 Parents contributing to decisions	61
6.2.3 Students deciding on their own	63
6.2.4 Peer influence on students' decisions	66
6.2.5 Schools and teachers making decisions	68
6.2.6 Students making decisions in consultation with school/teachers	75
6.2.7 Decision-making as a three-way consultation process	78
6.3 NCEA course choices in the context of parental and student aspirations...86	
7. DISCUSSION AND CONCLUSIONS	90
7.1 Understanding the system	91
7.2 Choosing NCEA subjects.....	95
7.3 Choices and aspirations.....	99
7.4 Implications	101
8. REFERENCES	107
APPENDIX A: Glossary	109

APPENDIX B 1: Student Demographic Questionnaire	117
APPENDIX B 2: Parent Demographic Questionnaire	118
APPENDIX B 3: Teacher Demographic Questionnaire	119
APPENDIX C 1: Student Interview Schedule	120
APPENDIX C 2: Parent Interview Schedule	121
APPENDIX C 3: Teacher Interview Schedule	122
APPENDIX D 1: Student Focus Group Schedule.....	123
APPENDIX D 2: Teacher Focus Group Schedule	125

TABLE OF FIGURES

Table 1. Characteristics of the student sample.....	30
Table 2. Characteristics of the parent sample	32
Table 3. Characteristics of the teacher sample	34

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1. EXECUTIVE SUMMARY

This report forms part of The Starpath Project for Tertiary Participation and Success, established in 2005 as a Partnership for Excellence between the University of Auckland and the Tertiary Education Commission (TEC). Starpath is a collaborative project based on a partnership with one mid-decile and three low-decile secondary schools in Auckland and Northland, and two tertiary education institutions. Its brief is to undertake research and develop and evaluate evidence-based initiatives to improve participation and achievement of students from groups currently under-represented in university education. In particular, Starpath Project is designed to identify and minimise or remove barriers that contribute to lower rates of participation and success in degree-level education by Māori, Pacific, and other students from low-decile schools.

The Problem

Although the number of New Zealand high school students leaving school without any qualifications is decreasing, there are still significant disparities in educational outcomes related to students' socioeconomic status and ethnicity. This is particularly evident in the proportions of students from different ethnic groups achieving the UE qualification and having the option of going on to degree-level tertiary study. Ministry of Education statistics for 2007 show that 66 percent of Asian and 44 percent of European/Pākehā school leavers achieved the University Entrance (UE) qualification and/or a Level 3 Certificate, compared with only 20 percent of Pacific and 18 percent of Māori school leavers. Earlier research, including scoping studies undertaken by the Starpath Project team, have shown that students from decile 10 schools are three times more likely to leave school with the UE qualification than students from decile 1 schools, and that there is a statistically significant correlation between school decile and achievement of the UE qualification.

These inequities pose a major challenge, and not only for young people from Māori, Pacific and low income families and their parents. According to international studies, there is a strong correlation between educational qualifications, long-term employment and life-long earnings, and Māori, Pacific and children from low income backgrounds comprise a rapidly increasing proportion of the youth population (and hence the future workforce) in New Zealand. If relatively few of these young people acquire degree level qualifications (and particularly University degrees, which attract a premium in life-long earnings), the country's prospects of sustaining a high income, high value economy into the future are significantly diminished.

This research project was undertaken as a follow up to earlier studies carried out by the Starpath Project and others, including large quantitative surveys which have shown that Māori and Pacific students, most of whom attend low-decile schools, tend to be enrolled in less academic subjects and *unit* rather than *achievement standards*, and to complete fewer *credits* from the *approved list* of subjects (required for completion of the UE qualification). Such a pattern of course choices places students from these groups with the ability and potential to succeed in degree-level qualifications at risk of not achieving the UE qualification, or of achieving at a level that is likely to exclude them from limited-entry university programmes.

The NCEA system, introduced in 2002, allows for much greater flexibility in the choice of subjects and accumulation of *credits* leading to Level 1, 2 or 3 Certificate and the UE qualification, than was the case under the previous system; and the broader choice of subjects has provided some students the incentive to stay on at school. Overall, the NCEA system is proving to be more effective in meeting the educational needs of the majority of secondary school students than the system it replaced, but some aspects of it are less helpful to some categories of students than others. In particular, its complexity and flexibility, coupled with widespread difficulties in grasping the long-term impacts of particular choices, can act as barriers, preventing some academically able students from achieving their potential at secondary school and from being able to go on to degree-level tertiary study.

The Project

This project was undertaken in response to the need to understand more fully why and how students from groups currently underrepresented in degree-level education (Māori, Pacific, and those attending low-decile schools) choose their NCEA courses, or have such choices made for them. Ministry of Education figures and other research studies have documented the existence and scope of the problem, as evident in the well documented disparities in educational outcomes that show that Māori and Pacific students attending low-decile schools are at the greatest disadvantage. What was lacking was a more detailed understanding of the situation from the perspectives of those most affected (students, parents and teachers), and the processes that work to produce it. Hence the decision to undertake a qualitative study with a focus on understanding the nature of the problem rather than its extent. If secondary schools are to reduce persistent disparities in educational outcomes for their students, there is a need to identify points and processes where interventions are necessary and where they are likely to lead to improved results.

Individual semi-structured interviews were conducted with 87 students, 42 parents, and 32 teachers from four schools – one mid-decile and three low-decile schools in Auckland and Northland. Follow-up focus groups were used to collect additional data and to clarify and check researchers' initial analysis and interpretations. Data collection was conducted between September 2007 and August 2008.

The main aim of this project was not to examine how NCEA affects all secondary students, but to focus on how NCEA and the choices made within its framework affect Māori, Pacific and other students from predominantly low-decile high schools in New Zealand, particularly those who have aspirations and show potential for degree-level tertiary education.

The Key Findings

- Students, parents, and teachers are generally happy with the NCEA system and identify its capacity to meet the needs of a diverse student body as its key strength. Students, in particular, like internal assessments, being able to gain *credits* throughout the year, and being able to add *credits* to those earned in a previous year to complete a qualification.
- A high proportion of students we interviewed aspire to achieving the UE qualification (78 percent of our sample), but a much lower proportion of these students achieve UE than those from high-decile schools.
- The flexibility and complexity of the NCEA system, and the wide range of subjects it offers, contribute to these ongoing disparities, benefitting some students but at the same time making it easy for other students to make non-strategic course choices or to find themselves on a pathway that leads away from achieving University Entrance. For example:
 - Students who choose or are directed into subjects made up predominantly or solely of *unit standards* or the applied versions of core subjects (such as mathematics and science) early in their NCEA career are likely to find it difficult or impossible to meet the prerequisite requirements for university study in these and related subjects;
 - Students who meet the minimum literacy and numeracy requirements for the UE qualification or for NCEA Level 1 but do not complete additional relevant *standards* in these subjects can fail to meet the “subject pass” required for further study at a higher NCEA level (determined by the school) and therefore fail to achieve *credits* in subjects deemed essential for entry to a number of university degree programmes, such as commerce, medicine, or engineering.

- NCEA subject choice is not necessarily student driven. Schools play a strong mediating role, determining which subjects are available and how they are timetabled, which *standards* within individual subjects are selected, which prerequisites have to be met for progression to more advanced study, and how students are selected for different versions of the core subjects. Students who lack informed adult support, and are allowed to make non-strategic choices early in their school career, are at particular risk of failing to achieve their academic potential, or of failing to gain entry to those qualifications that lead to their preferred careers.
- The NCEA system is seen as complex and difficult to understand fully. Parents, in particular, lack confidence in their understanding of many of its aspects and in their ability to advise and support their children in their subject choices and in planning the most helpful and appropriate programme of study in preparation for tertiary education.
- Students tend to be “street smart” in their knowledge of the NCEA system, seeking to maximise *credit* gains, but are not always aware of the longer-term significance of their choices. Avoidance of *achievement standards* and external assessments can lead to students not meeting the prerequisites for more advanced study, missing out on important content areas in a subject, and jeopardising their chances of gaining the UE qualification or the level of achievement needed for tertiary study in a field of their choice.
- Students’ and parents’ aspirations alone are not sufficient to achieve success. Aspirations have to be matched by carefully considered strategies for navigating the complexities of the NCEA system and its implementation within individual schools.
- Schools can play a positive role in subject choice and in ensuring that students keep their educational options open. Engaging parents and students in setting high but achievable academic targets, reviewing students’ achievements and goals on a regular basis, and ensuring access to academic subjects for students who have the potential to succeed in them, can lead to more positive outcomes.

The Key Implications

- If NCEA is to contribute to better educational outcomes for Māori, Pacific and other students in low-decile schools, and make more of them ready to enter degree-level education, the system needs to be more “user friendly”, its pathways more clearly understood, and more actively used. In particular, consideration should be given to streamlining some aspects of the system; and encouraging schools and other agencies to intensify their efforts to inform

parents and students about NCEA, making the system more comprehensible and mapping out clear pathways that can lead to different tertiary education or employment destinations.

- Māori, Pacific and other students in low-decile schools currently at risk of not successfully navigating NCEA pathways toward university study, and their parents, need clearer and culturally contextualised information tools. Such tools should serve as guides to the most appropriate pathways for selected fields of tertiary study and should provide specific advice on not only which subjects students need to study but also which ones to avoid if they aspire to particular degree-level qualifications and careers.
- Schools need to be resourced to provide timely, regular, and evidence-based academic counselling to their students.
- Schools should recognise and address critical points at which students with academic ability and potential can find themselves falling behind, diverted from the academic path, making inappropriate subject choices, or prevented from catching up or making timely corrections to their study programme. These “red flag” points include:
 - Low asTTle, PAT or similar scores in Years 8 or 9;
 - Average or below average academic performance in Year 10;
 - Allocation to “applied” (*unit standards*) versions of core curriculum subjects in Year 11;
 - Enrolment in inappropriate subjects in Years 11 and 12;
 - Failing to attempt and complete “subject passes” in required *standards*;
 - Failing to attempt and complete sufficient *credits* in Level 3 subjects from the *approved list*;
 - Failing to attempt and complete *achievement standards* at all levels;
 - Failing to attempt and complete external assessments;
 - Failing to attempt and complete sufficient *credits*.

Timely attention to these critical points should ensure that, regardless of the school they attend or their ethnic or socio-economic background, students with the potential to succeed in degree-level study know how to keep their options open, and are enabled to move along the ‘academic’ pathways within the NCEA system in order to realise their educational potential.

- Students (and their parents) should be actively engaged in shaping their educational options and pathways, but need to do so on the basis of sound information and confident understanding of the NCEA system as well as the implications of decisions at all points.

Freedom to choose from a vast and complicated array of options should not be an end in itself. It must serve the more important goal of better educational outcomes for all students. Improved outcomes for Māori, Pacific and other students from groups currently underrepresented in university education require that the NCEA pathways to tertiary study are made more straightforward, transparent and comprehensible, that students and their parents are given more helpful guidance in navigating the NCEA system, and that schools, students, and parents are engaged in actively and collaboratively shaping the pathways leading to successful completion of secondary education and transition to degree-level study at universities and other tertiary institutes.

2. INTRODUCTION

This report forms part of The Starpath Project for Tertiary Participation and Success, established in 2005 as a Partnership for Excellence between the University of Auckland and the Tertiary Education Commission (TEC). Starpath is a collaborative project based on a partnership between the University, Manukau Institute of Technology, and one mid-decile and three low-decile secondary schools in Auckland and Northland. Its brief is to undertake research and develop and evaluate evidence-based initiatives to improve participation and achievement of students from groups currently under-represented in university education. In particular, the Starpath project is designed to identify and to minimise or remove barriers that contribute to lower rates of participation and success in degree-level education by Māori, Pacific, and other students from low-decile schools.

Although New Zealand ranks high on the list of OECD countries in terms of the overall quality of its compulsory schooling, it ranks much lower in relation to equity of educational outcomes (OECD, 2001, p. 253). Students most likely to leave secondary school with limited or no educational qualifications are those from low-decile schools, and Māori and Pacific students (who are overrepresented in low-decile schools, particularly in the wider Auckland region). New Zealand Ministry of Education statistics indicate that in 2007, ten percent of students from decile 8-10 schools left with “less than Level 1 qualification”. In the same year, a much higher proportion of students from decile 1-3 schools (31 percent) left school without a formal qualification (Ministry of Education, 2008).

An early scoping study undertaken by the Starpath team examined the educational achievement of 9,894 students from 69 secondary schools in the greater Auckland region at the completion of secondary school in 2004. This analysis of subsequent participation in tertiary education was based on data from a sub-sample of 2,701 students who enrolled at university and whose first year results were available. The findings of this study indicated that school decile had “a small but significant effect on the likelihood of students achieving UE”, with students from lower decile schools less likely to gain the University Entrance (UE) qualification than students from higher decile schools. European/Pākehā students were more likely to gain UE than students from other ethnic groups (Shulruf, Hattie & Tumen, 2008, p. 619). Importantly, however, Pacific students who achieved the UE qualification were more likely than European/Pākehā students to apply for entry to university and to become active students (*ibid*). What is evident from this and other studies is that many Pacific and

other minority students have high educational aspirations but will struggle to realise them without the essential building blocks such as the achievement of the UE qualification at secondary school.

More recent scoping studies undertaken by the Starpath Project have demonstrated that the socio-economic status of the communities in which students attend school continue to show a positive correlation with their educational outcomes, particularly at the UE level. (Māori and Pacific students tend to be clustered in lower decile schools.) In 2007, for instance, national data on all Year 13 school leavers showed that 23 percent of students from decile 1 schools achieved UE, compared with 46 percent of students from decile 5 schools, and nearly 68 percent of students from decile 10 schools. Comparable data from Auckland schools showed an even greater gap, with only 21 percent of students from decile 1 schools gaining UE, compared with 51 percent of students in decile 5 schools and 71 percent of students from decile 10 schools (Yuan, 2008).

As noted above, the number of New Zealand high school students leaving school without any qualifications is decreasing and the National Certificate of Educational Achievement (NCEA) is “continuing to have a positive effect” on student achievement (Ministry of Education, 2008, p.6). Yet in spite of recent improvements in the numbers of Māori and Pacific students and those from low-decile schools achieving Level 1 and Level 2 NCEA qualifications before leaving secondary school, there are still significant disparities in educational outcomes. This is evident, for instance, in the proportions of students from different ethnic groups achieving the UE qualification and having the option of going on to degree level tertiary education. In 2007, 66 percent of Asian and 44 percent of European/Pākehā school leavers achieved the UE qualification and/or a Level 3 Certificate, compared with only 20 percent of Pacific and 18 percent of Māori school leavers (Ministry of Education, 2008).

The NCEA system, introduced in 2002, allows for much greater flexibility in the choice of subjects and accumulation of *credits* leading to Level 1, 2 or 3 Certificate, than was the case under the previous system. Students who do not gain a qualification in one year are able to retain the *credits* and add to them in subsequent years (Ministry of Education, 2008). More vocationally-focused pathways are available within the framework, with the expectation that all students will be able to select subjects that are relevant to their future plans and aspirations, that match their abilities, and that they find interesting and engaging.

Continuing disparities in educational outcomes, however, particularly in relation to the UE qualification and enrolment in degree-level studies, indicate that the NCEA system is not fully achieving the desired improvements for all students. There is evidence that Māori and Pacific students (clustered in lower decile schools) tend to be enrolled in "alternative" versions of core subjects such as mathematics, and in other "applied" subjects made up mainly of *unit* rather than *achievement standards* (Hipkins, Vaughan, Beals, Ferral, & Gardiner, 2005). There is also evidence from current Starpath research that Māori and Pacific students tend to take fewer subjects and complete fewer *credits* from the *approved list* of subjects (necessary for achievement of the UE qualification) than other students (Turner, 2007). Regardless of students' abilities, such a pattern of course choices can jeopardise achievement of the UE qualification and, even when the minimum UE requirements are met, is likely to exclude students from competing for admission to limited-entry university programmes (Shulruf, Tolley, & Tumen, 2005), which often require particular configurations of subjects and *credits* for particular qualifications, and a high (and increasing) number of *credits* from the *approved list* of subjects.

Students who enrol at university having completed both the UE qualification and the Level 3 NCEA (i.e. have achieved broader grounding in more subjects) are more likely to pass first year university courses than students who have achieved only the UE qualification (Scott, 2008). Hence the choice and completion of particular subjects and *standards*, and the achievement of more than a minimum number of *credits* at particular levels and in particular combinations, are both critical in determining further educational options open to school leavers.

What is evident from Starpath's earlier scoping studies and other research is that structural and systemic factors, as well as individual and family factors, play an important part in determining individual student pathways through secondary school and beyond. It is also evident that NCEA course choices are made within a changing environment, including changes to the NCEA system and secondary school curriculum, different leadership styles and approaches, individual school resources and constraints, and varying rates of student and staff turnover.

Project overview

This project was undertaken in response to the need to understand more fully why and how students from groups currently underrepresented in degree-level education (Māori, Pacific, and those attending low-decile schools) choose their NCEA courses, or have such choices made for them. Earlier scoping studies and other research (reviewed more

fully in the next section of the report) have established the prevalence and scope of the problem. What was lacking was a more detailed understanding of the situation from the perspectives of different stakeholders (students, parents and teachers) and the dynamics or processes that work to produce the current inequities in educational outcomes. Hence the decision to undertake a qualitative study and to focus on understanding the nature of the problem, rather than its already documented extent. If secondary schools are to reduce persistent disparities in educational outcomes for their students, there is a need to identify points and processes where interventions are necessary and where they are likely to lead to improved outcomes.

We also wanted to question some of the assumptions that surround the NCEA system and its implementation in New Zealand secondary schools. For example, that students are informed about all aspects of the NCEA system likely to affect them as students; that they choose the specific subjects that they wish to study; and that they go on to study the subjects of their choice. A further assumption is that lack of educational success by some groups might be explained by students choosing to avoid academically challenging courses and/or making inappropriate subject choices. One reason for this project was to clarify who in fact decides what courses a student, or a group of students, will study, and how the choices – whoever makes them – impact on the educational pathways available to students.

The aim of this project was to focus on NCEA and the choices made within its framework, and how these affect students from those groups currently under-represented in degree-level study, in particular Māori, Pacific and other students from predominantly low-decile high schools in New Zealand, particularly those with ability and potential to go on to tertiary education.

The research question directing the focus of the project – Why and how do Māori, Pacific, and other high school students choose specific NCEA subjects, levels and *standards*, or have such choices made for them? – was the main reason for deciding to use qualitative methods of inquiry. Individual semi-structured interviews were conducted with 161 students, parents, and teachers from four schools. Follow-up focus groups were used to clarify and check researchers' initial analysis and interpretations. Data collection was conducted between September 2007 and August 2008. Details of the design and methods of the study are presented in Section 4 of the report.

The report is organised into seven sections. The executive summary forms Section 1. Section 2 serves as an introduction. Section 3 contains the review of relevant literature and provides a more detailed background and rationale for the present project. As

already mentioned, the design and methods are presented in Section 4. Demographic characteristics of the study participants are described in Section 5. The findings are reported in Section 6, under three main headings: *The NCEA context: Understandings, practices and challenges*; *Who is making NCEA course choices?*, and *NCEA course choices in the context of parental and student aspirations*. The significance of the findings and the implications for policy and practice are discussed in Section 7.

3. LITERATURE REVIEW

3.1 Background

The National Certificate of Educational Achievement (NCEA) is a three level, standards-based, national qualification for senior secondary students in New Zealand. It was phased in over three years, beginning in 2002 with Level 1, progressively replacing the previous secondary school qualifications of School Certificate, Sixth Form Certificate and Bursary. NCEA was introduced as part of the continuing development of the National Qualifications Framework (NQF), which began in the early 1990s with the development of *unit standards*, first to assess workplace learning, and then school subjects (Hipkins & Vaughan, 2002). With the roll out of NCEA, *achievement standards* were introduced, which differ from *unit standards* in that they assess student achievement at three levels – *achievement*, *merit* and *excellence* – while *unit standards* can only be passed or failed. Also, while all *unit standards* are internally assessed, some *achievement standards* are externally assessed. *Credits* gained from both *unit standards* and *achievement standards* can count towards NCEA qualifications, which are awarded at Level 1, Level 2, and Level 3, on the basis of the number, level, and combination of accumulated *credits*.

The introduction of NCEA was a marked departure from the previous secondary school qualifications which were based in large part on norm-referenced, scaled, external, end-of-year examinations. This entailed a shift from a system focused on comparisons between students to one which looks at how students perform in relation to a standard – a particular learning outcome. NCEA was designed to provide a comprehensive picture of students' achievements and competencies – what they know and can do – rather than to provide a single numerical score for each subject. It was also designed to recognise a broader range of learning outcomes and to provide more flexible pathways for students. It was thought that NCEA would better support the learning of all students rather than just high academic achievers, recognising the fact that a more diverse range of students now stay on in senior secondary schools in New Zealand (Meyer, McClure, Walkey, McKenzie, & Weir, 2006; Hipkins, 2007).

The NCEA system has continued to be modified since its introduction. The most substantive design changes to date were announced in May 2007. They resulted from a number of reviews of the NCEA framework undertaken in 2005, and were intended to

deal with issues of “motivation, moderation, consistency, credibility, transparency and confidence” (Maharey, 2007, p.1). The main changes announced were:

- Students who receive a sufficient number of *merit* or *excellence* grades will have this recognised on their NCEA certificates. For example, students will be able to be awarded NCEA Level 2 *with merit* or NCEA Level 2 *with excellence*.
- Students will also be able to gain *merit* or *excellence* endorsements for particular subjects, if they receive enough *merit* or *excellence* grades for certain *standards* in a particular subject area.
- *Not achieved* results for internally assessed *standards* will appear on results notices, along with those for external assessments.
- School leavers will receive a School Results Summary which will be a complete record of their performance at secondary school.
- Reviews of *achievement standards* conducted by the Ministry of Education and reviews of *unit standards* conducted by NZQA will be done at the same time so issues of duplication and equivalence of *credits* can be considered.
- The moderation of internally assessed *standards* will increase from three percent of all internal assessments to ten percent.
- *Achievement standards* will be aligned with the new curriculum released in November 2007 (Maharey, 2007).

3.2 Course choices

There is a large degree of variation between the course offerings of different secondary schools in New Zealand. The number and range of courses schools can offer is constrained by factors such as staffing and resourcing, and shaped by the priorities and “ethos” of the school. As would be expected, the number of courses generally increases with school size (Pilcher, 2006). However, in a study of six secondary schools of similar size, Hipkins, Vaughan, Beals, and Ferral (2004) found that the number (as well as the types) of courses offered varied quite substantially between schools. Students themselves are aware of this variability; Meyer et al. (2006, p.4) reported that students in their study “expressed concerns about uneven opportunities for subject choices and access to study at the next level of NCEA across schools, with students at some schools reporting that they felt disadvantaged in comparison with students at other schools where more choices and opportunities seemed to be available”.

The NCEA framework has had important implications for the courses offered at secondary schools. As a result of the NCEA reforms, course choices are becoming much more diverse, and in many schools students can now choose from an expanded

range of options. This reflects the fact that NCEA allows students to gain *credits* for learning in a much broader range of areas. Furthermore, schools can use the flexibility of NCEA to create any number of different courses using different combinations of *unit* and *achievement standards* from one or more subject areas or *domains*; as one teacher commented in a focus group, “the versatility is off the wall” (Alison, 2005, p.108). Pilcher (2006) reported that since 2002, 61 percent of 183 schools surveyed in 2005 had introduced new “non-traditional” courses (defined as those with a vocational focus or those using new technology). A third of schools had begun offering new courses which used *standards* from a range of subject areas, and a quarter had combined existing courses, such as economics and accounting, or history and geography. Just under half of the schools that had made these changes said they were the result of the introduction of NCEA.

Pilcher (2006) also found that course choices were continuing to expand in some schools: in 2005, 43 percent offered more courses to senior students than they had in the previous year and 32 percent planned to increase the number of courses on offer the following year. Other schools were keeping the number of courses about the same from year to year: very few were decreasing the number of courses on offer.

A more recent survey of schools, conducted in mid-2007, also highlights the extent of course innovation that NCEA has made possible. Hipkins (2007) reported that two thirds of schools had at least one course assessed with *achievement standards* that were from one learning area or *domain*, but crossed traditional subject lines. This was occurring at all levels and in every learning area, particularly science, mathematics, social sciences and technology. In addition, 11 percent of schools had created courses assessed with *standards* from different *domains*, such as English and social sciences, or technology and arts. Most schools had some courses that used a mixture of *achievement* and *unit standards* and three quarters had courses which used *standards* from more than one NCEA level.

Often this flexibility in course design has been used to create new versions of core subjects to cater for the differing needs and abilities of students. In the *Learning Curves* study, which looked at changes in the subject and assessment choices on offer at six medium-sized schools from 2002 to 2004 as NCEA was phased in, Hipkins and Vaughan (2002) documented how all six schools moved quickly in the first year of NCEA to increase the number of alternatives offered at Year 11 within the compulsory subjects of English and mathematics, and in some schools, science. While most schools had offered “applied” versions of some of these subjects pre-NCEA, students

taking alternative versions of these courses were now able to earn *credits* towards the same qualification as other students. In 2002 at Year 11, all of these schools offered two versions of English and five offered three versions of mathematics, the remaining school offering two. Such alternatives were also opened up in Years 12 and 13 as NCEA Levels 2 and 3 were introduced. Hipkins et al. (2004, p. xvii) distinguished between three different types of courses which began to be offered in these core curriculum areas:

- Traditional-discipline courses, similar to those taken by most students pre-NCEA, usually assessed by the full complement of *achievement standards* for the subject.
- Locally-redesigned courses, which usually cover less of the traditional curriculum content and use a mixture of *unit* and *achievement standards*, sometimes from more than one NCEA level.
- Contextually-focused courses, which offer a reduced number of *credits* drawn mainly from *unit standards* that use only internal assessment, and “make closer links to students’ everyday life contexts or to contexts of future work or leisure”.

This kind of change is widespread: Pilcher (2006) found that around half of schools surveyed offered more English, mathematics and science courses in the senior secondary school than they had before the introduction of NCEA. The different versions of these courses differed in similar ways to those in the *Learning Curves* schools – whether they were assessed using *achievement* or *unit standards* or a combination, in the content covered, and in the number of *credits* and *standards* offered. The reasons most commonly given for offering such alternatives were to cater to different ability levels and meet students’ needs and interests.

Which versions of these courses students take has implications for what they will be able to do in the future. Contextually-focused English and mathematics courses at the schools in the *Learning Curves* study focused on achieving literacy or numeracy *credits* rather than leading to mathematics or English courses at a higher level (Hipkins et al., 2004). The *Competent Children, Competent Learners* project, which has tracked a cohort of almost 500 children since before they began school, found that even at Years 9 and 10, students might already be entering “divergent types of subject choice pathways” (Wylie & Hipkins, 2006, p. 118). The majority of schools attended by the cohort reported that students were separated into ‘ability’ groups for some subjects, most commonly for the core curriculum subjects – mathematics, English, science and social studies. Mathematics was the most likely subject to be differentiated in this way, and was often the most sharply differentiated, suggesting that “students are already on

a particular mathematics trajectory in Years 9 and 10 that will continue to determine the level of achievement open to them in the senior secondary school” (Wylie & Hipkins, 2006, p. 119).

Expanding the range of course choices should be given careful consideration as it can have negative effects. A review of the international literature on course-taking carried out by Starpath (Shulruf, Keuskamp, & Timperley, 2006) found no evidence that simply increasing the number of course choices had a positive effect on students’ educational outcomes. In addition, there were indications that schools that largely limited their course offerings to advanced coursework had smaller achievement gaps between different ethnicities. This no doubt has to do with the common observation that when a range of options exist, students often stratify into different courses and pathways along the lines of gender, ethnicity, socio-economic status and prior achievement.

This has been documented in the New Zealand context as well. A cluster analysis of students’ choices of optional subjects in Years 9 and 10, carried out as part of the *Competent Children, Competent Learners* project, revealed seven clusters, some with a more ‘academic’ focus than others, with some differences between students in different clusters along variables such as academic achievement, engagement in learning, mother’s education, family income, and school decile (Wylie & Hipkins, 2006). Hipkins et al. (2005, p.x) likewise conducted a cluster analysis as part of the *Learning Curves* study to examine how students combine different types of courses in the senior years of secondary school. This “revealed a strong tendency for students to combine both core and optional subjects of the same ‘type’”. For example, the 49 percent of Year 11 students who took traditional-discipline versions of English, mathematics and science typically took other traditional-discipline options such as history, geography, economics, languages and graphics. The 22 percent of Year 11 students who took “alternative” versions of all the core subjects usually took optional subjects with a practical focus, such as practically-orientated technology, computer studies, transition courses, and agriculture/horticulture. Clusters showed strong relationships with ethnicity and gender – for example, Māori and Pacific students were overrepresented in clusters with an ‘alternative’ focus at each Year level, limiting their opportunities in later years of study. Hipkins et al. (2005, p.39) commented that “While students were taking a more varied range of combinations at Year 11 than in Years 12 and 13, the differences between clusters pointed to an early direction into an “alternative” type of pathway for some groups of students. For these students, there may be a danger that the pathway will fizzle out, rather than lead on to further study or to the possibility of ongoing learning within employment”.

Students who take predominantly applied or “alternative” courses are likely to struggle to satisfy the criteria for University Entrance, particularly the requirement that they gain at least 14 Level 3 *credits* in each of two subjects on the *approved* subject list for UE maintained by NZQA. Earlier Starpath research has found this to be the most common NCEA “chokepoint” to gaining UE for all students. This is also the main “chokepoint” for Māori and Pacific students, although these students are more likely than students of other ethnicities to fail to satisfy one or more of the other criteria for UE (such as the numeracy and literacy *standards* and the overall number of *credits*) (Smith, 2007).

There are strong indications that taking too few *approved* subjects in Year 13 jeopardises students’ chances of gaining UE. The likelihood of students achieving UE increases with the number of *approved* subjects taken – for example, of students that sat NCEA Level 3 in 2005, only 6% of students that took two *approved* subjects achieved UE, while 87% of students that took five *approved* subjects gained UE. Māori and Pacific students study on average 2.7 and 2.5 *approved* subjects respectively, giving them less chance of gaining UE than Pākehā and Asian students who on average study 3.9 *approved* subjects (Smith, 2007).

Because many *approved* subjects need to be studied in earlier years in order to be taken at Level 3, choices in earlier years of school are very important if students are to have the best chance of achieving UE. A Starpath study of subject choices and student pathways at a large urban high school (Shulruf et al., 2005) found that selecting *approved* subjects in Year 11 was strongly associated with the likelihood of gaining UE. Students at the school with MidYIS scores just below 100 (i.e. below average on baseline learning ability tests given at Year 9) who took *approved* subjects in Year 11 were more likely than their counterparts with similar MidYIS scores to achieve UE, and were also significantly more likely to complete Year 13 at the school. Thus it appears that “students whose MidYIS scores were below 100 might have increased their chances of acquiring UE qualifications if they had taken University-approved subjects” (p. 7) and that for some students, “choosing non-approved subjects may in fact be detrimental to remaining in or succeeding academically in the school.” (p. 68)

The potential of subject choices to impact on students’ educational pathways and outcomes, and evidence of certain groups being over- or under- represented in particular subject choice clusters, directs our attention towards looking at how course choices are made. This is particularly important in the context of the expanding range of courses available to students. While this is frequently seen by teachers, parents and students as a positive aspect of NCEA (Meyer et al., 2006, Pilcher, 2006), it has also

made course selection more complex, and some parents and teachers express concern that some students make inappropriate choices (Alison, 2005; Meyer et al., 2006). Alison (2005, p.116) commented that “a system as complex as NCEA offers a huge range of choices to students, but it also opens great possibilities for students to make poor choices”.

Several studies have been reported to date that look at influences on subject choices. Meyer et al. (2006) surveyed almost 6000 high school students to explore, among other things, what had affected their course choices. Students’ self-ratings on a Likert-type scale identified three key factors – utility or importance of the subject (for future career or study); interest in and enjoyment of the subject; and external factors such as peer influences or demands of part-time employment. They found that students tended to choose specific subjects primarily because they were interested in subject content and secondly, because subjects related to their career goals (utility/importance). However, low-achieving students, those who took *unit standards*, students who were orientated towards ‘doing just enough’ rather than doing their best at school, and Māori and Pacific students were all more likely to attribute subject choices to external factors (i.e. peer influences and other non-academic considerations).

Hipkins et al. (2004) also investigated course choices, and found broadly similar results to Meyer et al. (2006), although the research looked at the influences on students’ choices of particular subjects rather than their choices as a whole, and also asked students which people had influenced their choices the most. A survey of students at the *Learning Curves* schools showed that they largely chose their subjects because they expected they would enjoy them – usually because they saw them as challenging and interesting, and for some subjects, because of the practical aspects. Students also took their future plans into account, and these were a dominant influence on students’ choices of English, science and mathematics courses. Few students chose subjects because they thought they would be a way to get easy NCEA *credits*, but those that did were more likely to be taking locally-redesigned or contextually-focused versions of core subjects. Parents were the people most likely to have influenced students’ choices, followed by a long way by subject teachers, deans, and career guidance counsellors (Hipkins et al., 2004; Hipkins & Vaughan, 2002).

Similar patterns were also found for influences on course choices at Years 9 and 10 in the *Competent Children, Competent Learners* project, although there was less focus on future plans at this stage. The majority of students said subjects were chosen because they thought they would be interesting. Only six percent said they chose subjects

because they sounded easy, but those that did were more likely to be from low-income families. Around a fifth of the students said family advice had influenced their choices. Very few said advice from teachers had had an influence (Wylie & Hipkins, 2006).

The fact that students see parents as the people who have the most influence on their choices is significant given the fact that school staff in the *Learning Curves* study were concerned that parents were limited in their ability to advise their children, although they felt parents' understanding of NCEA was improving (Hipkins et al., 2004).

Some research has also been done on how able students feel to make course choices, and the support they are given in the selection process. Meyer, Weir, McClure, Walkey and McKenzie (2007, p.72) reported that students "indicate that subject choices available to them under NCEA need to be underpinned by authoritative information about the usefulness and importance of subjects as well as the content within those subjects (which may align with particular assessment credits) for their future career and study plans". In a survey of 47 Year 11 students in the Waikato region, Smith (2004) found that three quarters reported they had felt prepared to choose their subjects/*standards* for Year 11. Eleven percent did not and thirteen percent felt somewhat prepared. Of the 47 respondents, 62 percent were happy with the choices they had made, 11 percent were not, with the remainder somewhat or mostly happy with their Year 11 choices. Around half said that they knew what NCEA subject/*standard* pathway they would take throughout the rest of their time at secondary school, roughly a quarter had some idea, and a quarter did not know. This suggests that a minority of students perceive a need for more help in making subject choices. Smith also drew distinctions between the responses of different groups of students, suggesting that students from low-decile schools were more likely than those from high-decile schools to have felt prepared to choose their subjects and to be happy with the choices they made. Smith interpreted this as indicating that students who felt prepared and happy with their choices had based their decisions on good information, but the small sample size she used means that these findings must be treated with a large degree of caution.

In the *Competent Children, Competent Learners* project, most students reported that they were happy with the choices they had made for Years 9 and 10. However, 28 percent of both parents and students said they would have liked more guidance, and this was higher for Māori and Pacific students and lower for those who had university educated mothers. Wylie and Hipkins (2006, p.128) commented, "It does seem that students with "cultural capital" that aligns well with current educational systems are

making subject choices that they are happier with subsequently. Given the emergent clustering of some “low ability” students into subjects that may close down study options later, this is a concern”. This indicates a major difficulty with the complexity of NCEA – since some schools, parents and students are better equipped than others to ‘navigate’ the system to best advantage. It seems that the more privileged students are often better prepared than those from disadvantaged backgrounds for those qualifications that give access to their preferred careers – irrespective of individual students’ academic ability and potential.

Guidance in relation to course choices provided by schools has the potential to compound this kind of clustering. Deans, career guidance counsellors and subject teachers do advise students on their choices, and Hipkins et al. (2004, p.141) pointed out that “Choice should be understood as the result of various influences regardless of whether or not the student has actually identified a particular person (e.g. a dean or a parent) as being of particular influence in making that choice”. At most schools, senior management, including deans, have the final say on students’ programmes of study (Wylie & Hipkins, 2006). In all of the schools in the *Learning Curves* study, which options students were counselled to take was dependent on their previous assessment results, and findings from this study “suggest that the clusters... reflect the advice provided by the deans – advice that strongly guides certain types of students to certain types of subjects” (Hipkins et al., 2005, p.15).

As well as students being guided into certain subjects, there are various constraints on their subject choices which affect what subjects or combinations of subjects they are able to take. Students can only take a certain number of courses, and when particular subjects are compulsory, the number of subjects they are able to choose is decreased. They are also limited by the range of courses individual schools choose to offer; many students surveyed in the *Learning Curves* study named subjects that were not offered by their school that they would like to take – often particular languages or vocational subjects. Often, students are not able to freely choose even from those subjects that are offered at their school. Timetabling is a major limiting factor since, “regardless of the effort of those who build each school’s timetable, it is impossible to satisfy the individual subject combinations desired by every single student” (Hipkins et al., 2004, p.209). At three of the schools in the *Learning Curves* study, courses were placed on particular option lines and students had to choose one subject from each line, meaning that particular subjects could not be taken in combination with certain other subjects. Students can also be prevented from taking a course because the class is full. In addition, courses often have prerequisites without which students are blocked from

entering a higher level class in the same or related subject. Hipkins et al. (2004) found that around half of Year 11 and Year 12 students had not been able to take at least one subject they had wished to take, and 12 percent of Year 11 students had missed out on three or four subjects they had wanted to take. In addition, 23 percent of Year 11 students and 38 percent of Year 12 students were unable to take a subject because of a timetable clash, and 21 percent of each Year level had not been allowed to take a subject, either because they had not taken it before or did not have high enough marks (i.e. they lacked the prerequisites), or because the class was full. Four percent of Year 11 and 12 students had been unable to take a subject because their parents insisted that they should not.

Choice of subjects is an important factor in students' educational experience. But this is not the only element of choice required of students. The NCEA system also provides for a choice of *standards* (sub-units of subjects) students are able to study, and a choice of *credits* they may attempt to gain. While this flexibility encourages some students to stay on at school, Meyer et al. (2006, pp. 3-4) pointed to features of the NCEA system which they found to be disincentives for motivation and achievement for some students, including "the ability to not do parts of a course that the student didn't like, not completing assessments where the student expected to do poorly, being able to avoid subjects and standards seen as challenging to one's learning, and not sitting external examinations, particularly once the student has achieved the minimum number of credits needed". Hipkins et al. (2005) also discussed the issue of students missing assessments. While some teachers saw this as a problem, others viewed it as a legitimate way for students to manage their workload. Hipkins et al. (2005, pp. xii-xiii) also drew a distinction between students who "know how to make good strategic decisions of this type, and accordingly to only choose to skip when they needed to maximise learning success in those assessments they retained" – mainly students taking traditional-discipline courses – and students who took more "alternative" types of subjects who "were more likely to make ad hoc decisions, or to not be in command of their credit totals at all". However, skipping assessments can have negative implications for the first group as well – Meyer et al. (2007, p.66) reported that school leavers attending university who were followed up noted that while NCEA had generally been useful in preparing them for university study, "problems occurred when students had not participated in the assessment of certain standards within a subject that proved to be critical prerequisites for tertiary study in that subject area".

This could occur not only when students choose to miss an assessment, but also when schools decide what mix of *standards* to use from a larger pool available for each

subject or *domain* of study. Schools have to make decisions about how many *standards* – and what type of *standards* – to offer, which can affect student outcomes. A Starpath scoping study on the availability of *standards* at decile 1 to 5 schools found that the average number of *achievement standards* offered at schools increased with school decile. It was also found that the number of *achievement standards* available was correlated both with the likelihood of students achieving UE and their NCEA “grade point average”¹ (GPA). This effect could not be totally accounted for by taking decile and school size into consideration. The availability of *achievement standards* was also shown to affect ethnic groups differently. The availability of *achievement standards* seems to have a greater influence on the Pākehā UE success rate than on the UE success rate of other ethnicities. However, once each ethnicity is subdivided by ability level (based on NCEA GPA) into quartiles, it appears that increasing the number of *achievement standards* available has the greatest positive effect on Māori and Pacific students of moderately high ability (the effect was not significant for any other subset) (Turner, Li, & Yuan, 2008). This suggests that Māori and Pacific students with obvious academic potential might be particularly disadvantaged in schools that offer a limited number of *achievement standards*.

Research to date indicates clearly that NCEA offers a greater range of study options than were available under the previous system of secondary school education in New Zealand. But as a relatively new qualification system NCEA also carries with it potentially serious and long-term implications for students who are taught and assessed within the system. While appropriate course choices and their successful completion can facilitate progression to tertiary study or skilled employment, inappropriate choices can lead to students completing qualifications which do not meet entry requirements for university or other tertiary study, limiting their post-secondary education and employment options, or leaving school without any formal qualifications. Although there is much that is positive about the NCEA system, early evidence suggests that Māori and Pacific students, particularly those attending lower decile schools, tend to choose, or are guided into, the less “academic” subjects and pathways relying mainly on *unit* rather than *achievement standards*, and “applied” versions of core subjects such as English, mathematics, or science; and that they attempt fewer *credits* overall. Although appropriate in some cases, this pattern of course choices usually precludes completion of the University Entrance qualification and, even when the UE requirements are met,

¹ NCEA GPA in this study was calculated on the basis of Level 3 *approved list* standards only. Students were given two points for each *credit* from *standards* for which they received an *achieved* grade, three points for each *credit* from *standards* for which they received *merit*, and four points for each *credit* from *standards* for which they received *excellence*. This score was then divided by the total number of *credits* they had attempted. A GPA was only calculated for students that had attempted at least 30 *credits* from *approved* standards – other students were assigned a ‘missing value’ for the purposes of the study.

excludes students from competing for admission to limited-entry university programmes (Shulruf et al., 2005), which are becoming ever more demanding in their entry requirements – for instance, ranking students on the basis of 80 ‘best’ *credits* from the *approved list* of subjects; or requiring a stringent combinations of *credits* and subjects.

If, as reported by Meyer et al. (2006), a significant number of students believe that their parents do not understand the intricacies of the NCEA system, the parents might be limited in their capacity to advise their children and support them in their study choices. It is also of concern whether all students and their parents understand both the immediate and the long-term implications of the course choices they make or have made for them (Hipkins et al., 2005; Meyer et al., 2006), especially when the requirements for entry to degree-level study keep changing.

The project reported here was undertaken to clarify how, when, and by whom NCEA course choices are made, and how clearly the implications of those choices are understood by students, parents (or caregivers²), and teachers.

² The term parent(s) is used throughout the report to denote the primary caregiver(s) or guardian(s) responsible for the day-to-day care and upbringing of a student.

4. RESEARCH DESIGN AND METHODS

As mentioned in the Introduction to this report, the present study was undertaken as part of a wider programme of research conducted by the Starpath Project for Tertiary Participation and Success. The Starpath Project aims to identify barriers that impede secondary students from some groups from equitably progressing to degree-level studies, and to design and evaluate initiatives that will minimise such barriers and enhance participation and success of currently under-represented groups in university education. Previous Starpath research, including literature reviews and scoping studies, relying largely on statistical data, has established the extent of the problem. It is evident that students attending low-decile schools, particularly Māori and Pacific students, are less likely than other New Zealand students to achieve the UE qualification and to begin university study, regardless of their individual ability and potential. Ensuring that more academically able students, regardless of their ethnic identification and/or the socio-economic status of their families, leave secondary school with sufficient qualifications and skills to be able to choose and succeed on a tertiary education pathway is a challenge facing New Zealand society as a whole. Finding strategies to effectively meet this challenge is a task that Starpath Project shares with other interested researchers, policy makers, and education leaders.

The overall goal of the present study was to develop a deeper understanding of the processes that result in some students taking, or being directed toward, educational pathways within the NCEA system that do not necessarily match their aspirations and potential for degree-level studies. Just as importantly, we wanted to provide recommendations, based on evidence, which would address the challenges facing students, families and schools navigating the complexities of the NCEA system.

Because students are not the only ones with a stake in their educational experiences and outcomes, this project was designed as a cross-sectional, qualitative study, using a series of composite case studies with triangulation of data from students', parents', and teachers' perspectives. The qualitative methods, including individual interviews and focus groups, were chosen not to document the extent of the problem (already well documented in earlier research), but to explore and gain a better understanding of the dynamics that underlie current NCEA outcomes for Māori, Pacific and other students currently under-represented in university education.

The following **research question** provided the focus for data collection and analysis:
Why and how do Māori, Pacific, and other high school students choose specific National Certificate of Educational Achievement (NCEA) subjects, levels and standards, or have such choices made for them?

As the Starpath Project aims not only to identify barriers that prevent academically-able Māori, Pacific and other currently under-represented students from succeeding at secondary school and making a successful transition to university or other tertiary study, but to identify how such barriers might be eliminated or reduced, this particular research study had two specific **aims**:

First: To answer the following questions:

- What is the nature of the decisions made in relation to NCEA course choices?
- What role do parents and/or other significant persons play in the choices?
- What role do teachers, career guidance or other academic counsellors play in the choices?
- What role do individual students play in the choices?
- What are the key factors that lead to particular choices?
- What do different stakeholders see as the implications of the choices made?

Second: To identify potential areas for intervention and research trials that schools could ultimately use to assist students to actively select more informed and strategically more appropriate programmes of study for their NCEA qualifications.

4.1 Data collection and analysis

We anticipated a 50 percent response rate to our initial recruitment for the study, and for that reason requested each school to distribute twice the number of information packages, targeting specific groups of students in terms of year of study, gender, and ethnicity. We also requested that the distribution should include students with varying levels of academic ability and not be limited to a single class. Students who agreed to take part were given an information package for their parents and asked to pass it on to them. Recruitment of teachers also included a request to each school to distribute information packages to a range of teachers, including subject and form teachers³, deans or year coordinators, and career guidance counsellors. This approach was

³ We use the term *form teachers* throughout the report to refer to teachers who have a coordinating and pastoral oversight of a class of students. In some schools they are referred to as whānau teachers or tutor teachers.

successful in relation to students and teachers but failed to recruit an adequate number of parents (largely because students either forgot to pass on the information to their parents, or chose not to do so). We therefore adjusted the recruitment strategy for the final round of data collection, asking the school to send out information directly to the parents. This resulted in a much higher response rate (48 percent overall) and an adequate parent sample.

Research data were collected through individual semi-structured interviews, focus groups, and document analysis of students' official NZQA Records of Achievement. In addition, all participants completed a short demographic questionnaire.

Participants were recruited from one mid-decile and three low-decile high schools in Auckland and Northland. Data collection took place between September and November 2007 for three of the schools, and in May 2008 for the fourth school. Follow-up focus groups of teachers and students were conducted in April 2008 for the first three schools, and in August 2008 for the fourth school.

Seven researchers conducted interviews and focus groups following initial research team briefing and using interview schedules with a list of key questions and suggested follow-up questions. Three of the researchers identify as Māori, two as Tongan-Palangi⁴, two as European/Pākehā; and all are female. All but three interviews and all focus groups were conducted in English. One researcher conducted three interviews for which professional interpreters were employed to allow participants (parents in all three cases) to use their preferred language (Tongan and Samoan). All but one of the interviews with students and teachers took place on school premises. One teacher chose to be interviewed at The University of Auckland. Parents were interviewed at schools, in their own homes, and at a hotel where the researchers stayed for one period of data collection outside of Auckland. To facilitate the participation of parents who worked during the day some of the interviews were conducted in the evening.

All interviews were recorded using digital audio recorders and transcribed verbatim. Participants were offered the opportunity to review and edit their transcripts and a number took up the offer. Only one participant requested that a small section of the transcript be deleted but on reflection made further contact and indicated that the transcript could be left intact.

⁴ 'Palangi' is a Tongan word for European. The same word in Samoan is spelt 'Palagi'. Which spelling is used in this report depends on the context in which it is used.

All transcripts were checked for accuracy, and the QSR NVivo™ (version 7) programme was used to store, manage, code and interrogate the data. Initial coding involved grouping units of data (usually short statements but sometimes several sentences) into categories determined on the basis of interview questions and initial reading of a sub-sample of transcripts. For example, for the responses to the question directed to parents: *What do you expect from your son/daughter in terms of school achievement?*, initial codes included:

- Do his/her best
- Stay at school
- Achieve an NCEA certificate
- Achieve UE
- Other

Responses that related to more than one data category were coded into multiple data nodes, keeping the statements intact. Coded data within initial categories were compared and dominant themes identified. Comparisons were also made between categories, for example to compare parents' and students' expectations of the latter's school achievement.

Initial coding involved four researchers. Subsequent thematic analysis and writing of the results of the study was done by two researchers. Other members of the team contributed to other sections of the report, as well as providing critical feedback on the initial drafts.

5. RESEARCH PARTICIPANTS

Purposive, maximum variability sampling was used to recruit a total of 161 participants. The aim of this approach is not to obtain a statistically representative sample but to ensure that all relevant categories of participants who can contribute useful data are included in the study. This included 87 students from Years 10 through to 13, both male and female, and from the Māori, Pacific, Asian, and European/Pākehā ethnic groups. The parents of students who agreed to be in the study were also invited to take part and just under half (41) of those invited agreed to be interviewed. A total of 32 teachers (including subject and form teachers, deans, and career guidance counsellors) also took part in the study. Details of each sub-sample are presented in the next three tables.

Table 1. Characteristics of the student sample

	MĀORI (n = 26)	PACIFIC (n=29)	PĀKEHĀ (n=25)	ASIAN (n=7)	TOTAL (n=87)
Gender					
Female	13	18	14	3	48
Male	13	11	11	4	39
Total					87
Place of birth					
New Zealand	25	21	21	2	69
Overseas	1	8	4	5	18
Total					87
Year of study					
10	6	3	1	2	12
11	4	6	5	0	15
12	8	9	13	2	32
13	8	11	6	3	28
Total					87
UE goal					
Yes	18	24	19	7	68
No	2	0	0	0	2
Not sure	6	5	6	0	17
Total					87

In terms of ethnic identification, similar numbers of Māori, Pacific and European/Pākehā students were included, with a smaller number of Asian students. The Pacific group of 29 students included 11 who identified as Samoan and two others who identified as Samoan/Palagi or Samoan/Cook Islander, eight as Cook Islander, five as Tongan and

one other as Tongan/Palangi, one as Niuean, and one as Kiribati. The Asian group included two students with Indian identification, two Filipinos, and one each with Korean, Chinese and mixed “Eurasian” background. A slightly higher number of girls than boys agreed to be in the study, the difference particularly evident in the Pacific group. The majority of students were born in New Zealand. The highest proportion of overseas-born was within the Asian group (5 out of 7) and Pacific group (8 out of 29).

We recruited 12 students (14 percent) from Year 10, to check how informed they are about the NCEA system and how ready they are to begin making subject choices for the following year. We recruited 15 students (17 percent) from Year 11 in order to find out how students in their first year within the NCEA system navigate through its requirements and options, and how aware they are of the implications of their early choices on subsequent years of schooling. But the largest numbers of participants were drawn from Year 12 – 32 students (37 percent), and Year 13 – 28 students (32 percent), to allow us to find out how students who should be familiar with the NCEA system regard their earlier choices, what implications those choices have had for them subsequently, and, in their view, how adequately the pathway they are following is preparing them for post secondary school life.

The majority of participating students (78 percent) indicated that attaining UE (University Entrance qualification) was a personal goal. This is an important finding since it indicates that these students had high educational aspirations and appreciated the significance of achieving UE as a stepping stone to further study and better employment opportunities, even if their course choices in some cases were likely to make the achievement of this goal difficult. Those aiming to gain UE included all Asian students but only 69 percent of Māori students, with eight (31 percent) of the 26 indicating that they were either not aiming to achieve UE or were not sure. By contrast, only five (17 percent) of the 29 Pacific students, and six (24 percent) of the 25 European/Pākehā students indicated that they were not sure. Not shown in Table 1 is the distribution of students who were not sure about completing UE requirements in terms of their year of schooling. Thirteen of the 17 students who were not sure were already within the NCEA system (i.e. enrolled in Years 11 through to 13), with five in Year 12 and another five in Year 13. Given that completion of the UE qualification requires that students meet a series of conditions that include *credits* from Levels 1, 2 and 3 of the NCEA framework and a particular combination of subjects and *credits*, these numbers alone raise concern that students in Years 12 and 13 can still be unsure of their educational goals in relation to their secondary schooling.

As shown in **Table 2**, the majority of the “parent” sample (78 percent) were female (30 mothers and 2 grandmothers) while the remaining 22 percent were male (all fathers).

Table 2. Characteristics of the parent sample

		MĀORI (n = 15)	PACIFIC (n = 7)	PĀKEHĀ (n = 19)	TOTAL (n = 41)
Gender	Female	14	4	14	32
	Male	1	3	5	9
	Total				41
Age	30-39	4	2	1	7
	40-49	7	3	11	21
	50 +	4	2	7	13
	Total				41
Place of Birth					
		15	2	15	32
	Overseas	0	5	3	8
	Total				40 ⁵
Highest Educational Qualification					
	Primary school	2	0	0	2
	Secondary school	6	6	10	22
	Trade certificate	1	1	5	7
	University degree	5	0	4	9
	Total				40
Occupation					
	Student	1	0	1	2
	Beneficiary	1	1	1	3
	Housewife	1	2	1	4
	Trades/services	4	3	9	16
	Professional/Mgt	7	1	3	10
	Self employed	0	0	4	4
	Retired	1	0	0	1
	Total				41
Annual Family Income					
	\$30,000 or less	7	4	5	16
	\$30,001 - \$50,000	4	1	4	9
	\$50,001 - \$70,000	1	1	3	5
	\$70,001+	3	1	7	11
	Total				41

⁵ Missing data from one parent where couple interviewed together

Of the 41 parents, the majority were either European/Pākehā (46 percent) or Māori (37 percent), with Pacific parents making up the remaining 17 percent. In the case of two couples the two parents were interviewed together, at their request. Most parents were in the 40 – 49 age group and the majority were born in New Zealand.

In terms of the parents' educational qualifications, just two (Māori) parents reported having only primary school education while the majority reported having at least a secondary school qualification. Just over a fifth of the parents indicated that they had completed a university level qualification – five of these were Māori and four were European/Pākehā.

In terms of occupation, the largest group of parents (39 percent) were employed in the trades or service jobs. The second largest group (34 percent) were those in professional or management occupations, or who were self-employed. A smaller number (24 percent in total) were full time students, housewives, beneficiaries or retirees. The occupational status of the participants was reflected in their annual family income levels, with 39 percent reporting a total family annual income of \$30,000 or less (in fact three Pacific, one Māori, and one European/Pākehā parent reported an annual family income of \$20,000 or less). Of the 11 participants who reported an annual family income above \$70,000, the majority (seven) were European/Pākehā.

As shown in **Table 3**, the majority (78 percent) of teacher participants were European/Pākehā, while the rest included five (16 percent) Māori and two (6 percent) Pacific teachers. All five overseas-born teachers were within the European/Pākehā group. Approximately half the teachers were below 40 years of age but more than a third (38 percent) were 50 years or older.

Close to three-quarters (72 percent) of the teachers reported having a university level qualification. Seven European/Pākehā and two Māori teachers reported having a Trained Teacher Certificate as their highest educational qualification. The amount of work experience the teachers reported ranged from less than two years to over 30 years. Forty one percent of the participants had more than 20 years of teaching experience.

All participants had some classroom teaching involvement although close to one half (47 percent) listed other areas of work such as career counselling or school administration and leadership as their primary area of work. Of those who listed classroom teaching as their primary area of work, most also reported other

responsibilities within the school, such as curriculum or other committee work, or oversight of students' extracurricular activities including sporting and cultural groups.

Table 3. Characteristics of the teacher sample

		MĀORI (n= 5)	PACIFIC (n=2)	PĀKEHĀ (n=25)	TOTAL (n=32)
Gender	Female	2	1	17	20
	Male	3	1	8	12
	Total				32
Age	29 or less	0	1	1	2
	30-39	5	1	7	13
	40-49	0	0	5	5
	50 +	0	0	12	12
	Total				32
Place of Birth					
	NZ	5	2	20	27
	Overseas	0	0	5	5
	Total				32
Highest Educational Qualification					
	Teacher Certificate	2	0	7	9
	Bachelors degree	3	0	8	11
	PG Diploma	0	1	8	9
	Masters degree	0	1	2	3
	Total				32
Years in teaching					
	Less than 2 years	1	1	1	3
	2-10 years	4	1	6	11
	11-20	0	0	5	5
	21-30	0	0	10	10
	30+	0	0	3	3
	Total				32
Main area of work					
	Teaching	3	2	12	17
	Career counselling	1	0	7	8
	Administration	0	0	4	4
	Other	1	0	2	3
	Total				32

A sub-sample of students and teachers interviewed in the first part of the study also took part in the follow-up focus groups. Two focus groups with teachers from three of

the schools involved in the study included a total of nine teachers (six female and three male). Four focus groups with students – one at each school – included a total of 28 students (21 female and seven male).

6. FINDINGS

Because the main goal of the study was to deepen our understanding of the processes that determine how and why students choose or are guided into particular NCEA course choices, rather than to compare what happens in different schools, the findings do not make reference to the individual schools in which the research took place. The second reason for this approach is ethical and relates to the researchers' commitment to protect the privacy of individual participants by not providing information that could easily identify them.

The findings are reported in three main sections, *beginning with* the contextual factors: the perceptions that students, parents and teachers have of the NCEA system, and how it works in practice; what each group knows about the system; and what teachers see as the current challenges facing them and the schools in which they work. The *second section* deals with findings in response to the key question of who makes NCEA course choices. In the *third section* we present the findings on how NCEA course choices correspond to the students' and their parents' aspirations and plans. The significance and implications of the findings are discussed in Section 7.

6.1 The NCEA context: Perceptions, understandings, practices and challenges

6.1.1 *What students, parents and teachers think about NCEA*

In order to have a clearer understanding of the context in which students' NCEA course choices are made, we asked all participants questions about what they knew about the NCEA system and (in the case of students and parents) what sources of information they relied on when making decisions. But regardless of how much information they had or what information sources they used, all participants had some experience of the NCEA system in practice. We therefore asked them to comment on how well the NCEA system was working and what they liked or disliked about it.

From the students' perspective

Students were generally very positive in their comments about NCEA. They liked internal assessment and the opportunity it provided to gain *credits* throughout the year. They saw this as more motivating and less stressful than end-of-year examinations. Students who might otherwise have given up a subject as too difficult, felt that they could pass smaller pieces of assessment because these were less daunting than major

examinations, the teachers were available to clarify what was expected, they had to recall smaller amounts of information, and assessments included various activities not just a formal examination. *Credits* achieved during the year acted as rewards for ongoing work but, for some students, they also boosted confidence in their ability to do well in the external examinations. Most of all, students liked that it was not a case of all or nothing; that achievement in a subject did not depend solely on their performance in a single examination.

I do find doing the internals throughout the year is good though... it's keeping me motivated if you keep passing. ... We don't have to do everything at the end of the year like you used to. (New Zealand-born Māori Year 13 female student)

The internal exams are pretty good... it does cut down on the stress at the end of the year, and if you say, you've got 40 credits at Level 3... You can rest easy. You can say, "Okay, I can afford to fail these ones, I can focus on these ones"...It's not putting all your eggs in one basket. (Overseas-born European/Pākehā Year 13 male student)

Other students liked the flexibility and personal choice that allowed them to determine how many *credits* they aimed to achieve, that they could study at different levels and make up for missed *credits* from a previous year, and that they could choose how much work they wanted to put into which parts of a subject:

There's five different subjects in maths. Like calculus, algebra, graphs and stuff, you can pick. Pick ones you want to do well and you can achieve easily, and then the other ones it doesn't matter too much. So it's good how you can do that. (New Zealand-born European/Pākehā Year 12 male student)

Students were also positive about the recent changes providing for *merit* or *excellence* endorsements of NCEA certificates. Such endorsements, they felt, would motivate students to study harder and give those with endorsements "an edge" over other applicants in the job market.

One aspect of the NCEA system that students, particularly those aiming to attend university, disliked, was the lack of a grading system that would have given them a clearer indication of their achievements (e.g. was that *excellence* in history or chemistry indicative of 80 percent, and therefore room for improvement, or 98 percent?). They were similarly critical of the *achievement* grade as failing to give credit to students who achieved close to *merit* performance on first assessment and treated them the same as students who achieved a much lower "mark", or who failed initially, were allowed to undertake a second assessment, and barely "scraped through". Overall, students wanted assessment "grades" that provided more meaningful feedback and allowed them to compare their achievement with that of other students.

Personally I don't like it... because... you don't know where you stand... Like you get "merit" but... you don't know if it's high "merit" or low "merit"... I'd rather

get a percentage. I'd rather know if I got 90 percent or 70 percent or whatever.
(New Zealand-born European/Pākehā Year 12 female student)

Some students also felt very strongly that the NCEA assessment system did not encourage students to do their best. Knowing they could have a second attempt at a failed assessment was seen as contributing to some students' poor time management or too much reliance on the safety net of assessment "re-sits":

Because if you think about it, people will think "I'll just do a resit. Fail this one." It doesn't really motivate them or push them... it doesn't really push them to do harder. They just sit back and relax and say "I'll fail this and do better next time". It's not good. The re-sits [are not helpful]. (Overseas-born Asian Year 12 male student)

While students regarded as high achievers were usually assured of a place in the classes they wanted, other students found getting into particular classes a problem. There was a feeling that "earning" the right to be in a class of one's choice was difficult and not dependent on academic achievement alone. It was a privilege that could be granted or taken away.

... it's really hard getting into the classes that you really like. You really have to earn what you want to get into, those classes. (New Zealand-born Kiribati Year 13 male student)

For those aiming to achieve the UE qualification, one of the frustrating aspects of the NCEA system was the Level 2 literacy requirement. Many students and some teachers commented that while the numeracy requirement was relatively easy, the literacy requirement could be a stumbling block. Failure to achieve the literacy requirement and sufficient *credits* in English prevented some students not only from being able to enrol in English in subsequent years, but was also used in some cases to advise students against studying subjects such as history or media studies where language and writing skills were deemed essential to students' capacity to succeed. Although less common, failure to complete the literacy requirements could prevent students from completing the UE qualification.

From the parents' perspective

Although parents might be struggling to understand the NCEA system, many reported positive feelings about the system overall. They felt that NCEA was a "fairer" system (compared to the School Certificate and Bursary qualifications it replaced) because it catered for a wider range of students, and provided access to a broader range of subjects students could use to achieve a secondary school qualification.

I love that, one of my kids, my oldest one... she would thrive in the old system because she loves writing, she loves reading, she's goal orientated and all that sort of stuff. But my other four... I just don't... I think that the NCEA system's a really fair system for [them], because their style of learning doesn't necessarily fit what used to be the school system of success. (New Zealand-born European/Pākehā mother of Year 13 student)

Parents also reported that they liked internal assessments or the mix of internally and externally assessed *credits*, because these suited some children better than previous reliance on the end-of-year examinations.

At the same time, parents also drew attention to what they perceived as weaknesses within the NCEA system. Some doubted the integrity and quality of NCEA qualifications, questioning the adequacy of internal assessments and the subjective judgements of individual teachers, while others believed that the NCEA system allowed children to focus on assessments and accumulation of *credits* at the expense of gaining knowledge that would prepare them for future opportunities, whether in further education or skilled employment:

My kids... went to school just to gain credits... instead of... gain[ing] knowledge for what they want to do in the future. (New Zealand-born Māori mother of Year 12 student)

This focus on gaining *credits*, according to parents, led to their children taking, or being tempted to take, easier, rather than the most appropriate, options. This could involve academically able students not sitting external examinations (because they already had the minimum number of required *credits*), students taking “easy” subjects that were not intellectually challenging in order to gain more *credits*, or students settling for an *achievement* level pass in a subject, rather than aiming for *merit* or *excellence*. The fact that students could “stop learning” and not have to take part in the end-of-year examinations was of concern to parents who saw this aspect of the NCEA system as unhelpful and de-motivating:

Our kids are smart enough to know they only need “X” number of credits to pass, to achieve, however they want to see it, and that’s all they’ll work to. And they get halfway through the year and think “hey I’ve got enough in the bank, sweet”. (New Zealand-born European/Pākehā father of Year 12 student)

Access to a broader range of subjects, including many vocationally and experientially based courses was seen as helpful to some students but also weakening or perhaps devaluing the NCEA qualifications overall. A parent who had worked as a teacher in a number of different schools was able to articulate the concern of a number of parents who lacked such insider knowledge of the school system but who, nevertheless, felt uneasy about their children’s subject choices and focus on *credit* accumulation:

I know that the Government had a policy that there would be equal pass rates, or equal qualification rates on leaving school for Māori and non-Māori; that’s part of their agenda. But by simply widening the frame... the question is quality. Really, “is one NCEA Level 2 Certificate the same as another one?” And I would say that it’s not, because, the devil is in the detail... So I kind of have concerns about that. It’s almost like a political solution to the achievement gap, but is it really? It’s not actually closing the gap. It’s just changing the goal posts... (New Zealand-born Māori mother of Year 13 student)

What made the NCEA system particularly challenging for most parents was its difference from school qualifications with which they were more familiar. This made it difficult for them to understand the apparent flexibility that allowed their children to not have to do the subjects parents thought were important. The complexity of NCEA also made it difficult for parents to initiate informed discussions about their children's subject choices and school performance, either with the children or their teachers. In some cases, parents felt disempowered and excluded from being able to oversee their children's education at secondary school.

From the teachers' perspective

Most teachers we interviewed expressed positive attitudes toward the NCEA system. Those new to the system found it more difficult to understand than the systems with which they were more familiar, but they could see the advantages it offered the students. These included subject options that catered to a greater variety of students' interests and abilities, the provision for internal assessments and incremental accumulation of *credits*, and the opportunities for students who failed to pass on first attempt to receive additional help and be reassessed. The NCEA system was seen as more inclusive of a variety of learners and providing recognition for culturally valued learning in areas such as *Te Reo Māori*, *kapa haka*, and Pacific languages and cultures. As the following quote illustrates, teachers also regarded the NCEA Record of Achievement as a fairer and more accurate reflection of student learning than a simple grade in a subject:

I think it [NCEA] is brilliant. I think it's absolutely brilliant... Because it puts into context exactly what a student is capable of, exactly what they can do, it provides a record of things that they've actually achieved, or skills that they've learned, and skills that they've excelled at or are capable of doing. (Male teacher)

Some teachers also considered NCEA had advantages for teachers, challenging them to be more thoughtful and reflective in their work, more engaged with the students, and more aware of how effective their teaching approaches were with individual students:

I'm actually a very positive supporter of the NCEA, because I think it makes teachers teach more thoroughly, and teach and check more that students are understanding processes as well as content. So for me, I really like the way it works. I like the way teachers have to set up their marking schedules beforehand, so they have to make it really transparent, so there's no surprises. So the students know what they need to do to get a Merit or an Excellence or an Achieved, and I always work towards the Excellence and come back from there. But try and get the students... to work to that level. Obviously that doesn't always happen but I like that part of it. (Female teacher)

On the other hand, even teachers who were enthusiastic about NCEA generally recognised that it was “a work in progress”, needing improvements and adjustments. One area of concern to teachers was the lack of recognition of excellence which many students undertaking *unit standards* demonstrated, since the only grade that could be awarded to them was that of *achievement*, regardless of the amount of effort they put into their learning or the quality of their achievement.

The strongest criticism of NCEA related to what teachers perceived as the overemphasis on assessment at the expense of learning. Teachers were particularly concerned that students were motivated almost entirely by *credits* they could earn and it made it harder for teachers to help students develop a love of learning as a life-long process. Knowledge, they observed, tended to be seen in terms of its instrumental value rather than any intrinsic value:

I think things have become very, very, credits orientated. And while that's, that's great in some ways, I also think it's... sort of taken the creativity a little bit out of it... that love of learning. [Instead] it's become very, very, credits orientated... It has become a sort of obsession... there's a feeling that if you get them to do something and it's not related to getting a credit or a number from it, that it's pointless. And that's a real shame, because like, why not just do a piece of creative writing just to do it? ...as a teacher you want to foster that love of learning for the sake of learning, and for the sake of knowing. (Female teacher)

Students' focus on the *credit* value of each part of the course was of concern to teachers, especially when even academically able students made calculated risks about their learning, not in terms of what they needed to learn to give them a solid grounding in a subject but purely on the minimum number of *credits* they needed to achieve a pass in a subject or a qualification:

Assessment is the main problem... NCEA has become a running race in that "the credits" is the tape, and when they run through that tape they stop running. That's the analogy... When you do an assessment, the first thing they ask you is "is this worth credits?", that's the very first question. If the answer's "no", "uh it doesn't matter then". And that's our good kids as well. So they understand the numerical process of NCEA. (Male teacher)

Ongoing assessment activities created a sense that teachers' work days were dominated by planning, writing, administering and marking student assessments, with teaching relegated to the background:

The assessment juggernaut, you know. We just keep rolling on, and we know we shouldn't be over assessing, but at the moment it's almost like we're not teaching, we're just assessing full-time. (Male teacher)

Ongoing assessment was also seen as time consuming, and a source of frustration for many teachers, taking them away from contact with students, and focusing on mundane details rather than trusting their professional judgement.

The time involved in the *moderation* of internal assessment results, before releasing them to students, was an additional source of frustration:

... the internal assessments becomes overwhelming, in terms of all the moderation meetings we have to have... There's not enough time to do them during the day, and when there's other pressures like reports to be written and so on, moderation meetings, while necessary, take up an enormous amount of time. (Female teacher)

Although concerned about the impact NCEA had on their life as teachers, most of those we interviewed were more critical of the aspects of the NCEA system they saw as having a negative impact on students. One area of particular concern was the demotivating impact of the *credit* system on students' learning and decision making in relation to subject content they choose or choose not to study, and assessments from which they often opt out. Teachers were particularly concerned that even able students settled for the minimum number of *credits* they needed, and did not attempt external examinations, because they had already accumulated the necessary *credits*, because they feared that poor performance would reduce their grade point average, or because they did not have the confidence to sit external examinations:

That's what happened last year, it was bitterly disappointing. The trend started the year before. We tried really hard last year to get the kids to go to the externals obviously, but some of them didn't do that. I'm not sure at university how many papers there are that are totally internally assessed or if they'll be hitting exams down there, but we have to, this year, I think we have to really pick the kids out who might be going to do that, and really work with them. I know [a teacher], one of her really good students who'd come across from the kura... she was awesome. [The teacher] rang her home because she wasn't here [for the external examination] and she was down at [a fast food outlet] working for the day... So that was so sad for the girl, because she would have just ripped through the exam... That was one, but yeah... they add up. They know they've got their eighty [credits] and they think "nah, I don't have to go", so that's a shame. (Female teacher)

The perception that *credit* and assessment considerations drove students' decisions and could determine what was taught was an added area of frustration for teachers:

Whether the standards themselves are ideal is another matter because I think that the NCEA system is very fragmentary... We can't really get away from this assessment driven curriculum. Even got students who are saying "Well, what's the point of doing that at a unit standard? I can't get a merit or an excellence for them and that's what I'm aiming for." So we'll drop that as well. (Male teacher)

The second area related to the difficulties teachers faced when selecting from a large pool of available *standards* in order to create coherent and useful subjects for their students. Teachers had to create subjects from "discrete little pockets" – depending on how many *credits* they planned to offer within a particular class and which ones they thought were the most appropriate for their students. What had to be left out was often as important as what was included. The seemingly arbitrary choices made by teachers

contributed to significant variability in the content that students covered in particular subjects in different schools or in the same school at different times. Whether through teachers' choices, or the available pool of *standards*, there could be gaps in students' learning that teachers found inappropriate but not always avoidable:

You know there are aspects of science in Year 11 that are simply not covered which should be. And then students are expected to pick them up, they're expected to have that knowledge in order to pick up the subject at Level 2, and they just haven't covered it at Level 1, or it hasn't been chosen... there are pieces of a jigsaw that make a whole, [but] you've got some very odd shaped pieces (laughing) and some of them are missing. (Male teacher)

Other areas of concern included the quality of external moderation, and the possibility for it to be manipulated by individual teachers or schools, and the sometimes sparse and unhelpful feedback from moderation panels. Some teachers reported having their assessments "downgraded" but were left unsure of the standards and criteria used to decide on such a course of action. Similar comments were raised in relation to consistency of internal marking, in spite of external moderation, with teachers concerned about the variability of assessment standards across the country and lack of confidence that the grades assigned to students reflected a national standard of achievement. There was also evidence that literacy requirements are still a problem for many students and that teachers, who think that literacy and numeracy requirements should be of similar level of difficulty and challenge, see a large gap between the two, with literacy requirements seen as overly onerous and acting as a barrier to students completing the UE qualification.

Good decisions are usually informed decisions. Those choosing one course of action over another need to know what their options are and what the effects of different choices are likely to be. So, before looking at who is making course related decisions, we asked participating students, parents, and teachers to share their understanding of NCEA with us.

6.1.2 What parents know about NCEA

Parents, teachers and students were all asked to comment on what they thought *parents* knew about the NCEA system and the study and qualification options it provides. The overall perception of all three groups was that parents have very limited knowledge of NCEA and are struggling to understand the system and how it works in relation to their children. Without an adequate understanding of the system and, crucially, how to monitor their children's academic progress through their senior secondary schooling, parents struggle to meaningfully advise and support the NCEA

subject choices their children make or have made for them; and the impact of those choices on the future life chances of their children.

From the students' perspective

According to the students in our sample, their parents have limited or no knowledge of the workings of the NCEA system. Parents struggle to make sense of their children's NCEA results, and have to ask their children for explanations about "grades" and what they mean in the context of progression towards achieving NCEA qualifications. Parents were also reported to be unclear about specific subject and *credit* requirements, such as those needed to complete the University Entrance qualification. Students reported attempting to educate their parents in the "new system", but finding this difficult because of the perceived complexity of NCEA when compared to the "old system" familiar to their parents:

It's very confusing 'cause they know the Fifth Form Certificate system. They know you get a pass for each subject and get above 50 percent, which is actually a lot more simple than this real complicated... I've got to get eight credits in here, and eight credits in this, and you can only get literacy credits from certain papers blah, blah, blah. It's really complicated... (Overseas-born European/Pākehā Year 13 male student)

Overall, students gave the impression that generational and cultural differences made it unlikely that their parents would come to grips with the complexity of the NCEA system and that this made it easier for students to do what they wanted at school, without their parents being able to check on them or know how well they were doing.

From the teachers' perspective

Teachers tended to share students' perceptions that parents do not understand NCEA and that the system is still a "mystery" to them. According to teachers, parents "don't understand it at all", have "no idea" or have only "the basics". Echoing students' views, teachers were not surprised by the parents' lack of knowledge, due to the complex nature of the NCEA system and its requirements. In particular, teachers reported a need to "decipher" NCEA language for many parents:

Well, making it simpler for them so that they can try and see what we're talking about when we refer to levels, you know? One of the reports we had one year had referrals to curriculum level, NCEA level, Year level, I mean, it's crazy. (Male teacher)

According to teachers, parents who are most informed about NCEA tend to be university educated, have "the more academic" children, and are the ones most likely to attend parent-teacher meetings. Other researchers (Wylie & Hipkins, 2006) have also identified the presence of 'cultural capital' within families that are comfortable with the current educational systems as giving a definite advantage to some students. Conversely, parents who for social, cultural, linguistic, or other reasons do not have a

clear knowledge of the NCEA system and whose life experiences make it difficult to engage with their children's school, are less able to be of help to their children.

Teachers were aware that a lack of adequate understanding impacts on parents' ability to effectively guide their child through the NCEA system. Some talked generally about parents not being able to "contribute" while other teachers raised examples of specific areas parents were struggling to understand:

- Documents such as their child's school results or the NZQA Record of Achievement;
- The difference (and the significance of the difference) between alternative versions of subjects (e.g. English 100, English 101, or English 102);
- The breakdown of subjects into *standards*;
- The difference between *unit* and *achievement standards*;
- The ability for students to "re-use" *credits* from lower levels to meet the specified requirements of NCEA certificates at different levels:

... you move up to Level 2 where... 60 [credits] needs to be at that level, but the 20 can come from Level 1 ... that can be re-used, which they don't understand. They think that that's really bizarre. Why should you be able to re-use credits? (Female teacher);

- The possibility of undertaking "multi-level study", i.e. a student studying at NCEA Levels 1, 2, and/or 3 at the same time, even within a single subject;
- The implications of subject choice, particularly for subsequent years:

I think parents still find it really hard to get to grips with. A lot of it is around the implications of choices at Year 11, and how that's going to affect their kids when they get to Year 12 and 13... Kids picking the easy options, and [long pause] then coming to grief later on. (Female teacher);

- The UE qualification⁶ and requirements for entry to other tertiary education programmes:

... [parents] can get hung up on them getting their Level 1 Certificate or their Level 2 Certificate, instead of looking at the big picture. Okay, they may not have got Level 2 but they might be capable of getting 42 credits in [University] Entrance, and Level 3, so instead of repeating Level 2, [to] get their Level 2 Certificate, let them go on to Level 3. Little things in the system like that they find really difficult to get their heads around. (Female teacher);

⁶ University Entrance (UE) qualification is integrated with, but different from, other NCEA qualifications (Level 1, 2, and 3 Certificates). It requires completion of a minimum of 42 credits at Level 3 or higher, including a minimum of 14 credits at Level 3 or higher in each of two subjects from the approved list, and a further 14 credits at Level 3 or higher from no more than two domains on the NQF or other approved subjects. It also requires completion of at least 14 credits at Level 1 or higher in mathematics (or pāngarau) and at least eight credits at Level 2 or higher in English (or Te Reo Māori). Four of these 'literacy' credits must be in 'reading' and four in 'writing'. (See glossary at the end of the report for more details.) The only requirements for the NCEA Level 3 Certificate are the completion of at least 60 Level 3 or higher credits and at least 20 Level 2 or higher credits.

- The importance of individual school policies and their interaction with NCEA requirements (e.g. policy on when and how often students are permitted to be reassessed on previously failed assessments).

Teachers were aware that they could not take parents' understanding of the NCEA requirements for granted, particularly when these intersected with individual school rules or requirements. In this regard, the topic of the "subject pass" was often brought up to show how difficult it was for parents (and even students) to plan subject choices with adequate awareness of both immediate and later implications. "The subject pass" is not a formal NCEA requirement but a school rule that determines the number and mix of *credits* required for progression to a higher level of study in the same subject. For example, the Level 1 Certificate specifies that students must have completed eight *credits* in numeracy (mathematics) at Level 1 or higher, but a student who has completed this requirement in Year 11 may be prevented from enrolling in a Level 2 mathematics subject in Year 12 because the school policy might be that a "subject pass" in Level 1 mathematics means gaining a minimum of 12 (not eight) *credits*. Even if a student is permitted to enrol in Level 2 mathematics, it might be that the only version open to this student is the "applied", *unit standards* only, version of mathematics, which in turn is likely to bar the student from studying calculus at Level 3. One of the teachers cited a recent example of a parent and student who were unaware of this school requirement:

I think people have got so hung up on the total credits that they have forgotten about the subject pass as such... I had quite a flabbergasted... father and daughter that I had enrolled at the start of the year where I said "yeah she might have her 95 credits... but she wouldn't be able to do this subject because she's only got eight in that particular subject, so we wouldn't consider that she could go on in that subject", and they hadn't even thought of that aspect of it. (Female teacher)

Another teacher mentioned similar tensions between the NCEA regulations and school policies in relation to another compulsory subject, English, in which students are required to achieve a minimum of eight Level 1 *credits* for NCEA Level 1 Certificate, but this is not enough to allow them to continue with the subject the following year:

They don't [understand], because there's too many sub-things in NCEA, so you can get your 80 credits but if you don't have eight credits in English then you're not going to get your Level 1 credits until you get your eight credits in English. You know you can get your eight credits in English, but within the school system... to move up into Level 2 you have to have 12 credits in English. Yeah, you're literate for NCEA but [as far as the school is concerned] you're not quite there to move up to the next level.... Our parents... it's a wonder they don't implode with all the stuff they have to keep track of. (Female teacher)

From the parents' own perspective

Given such a discouraging report from students and teachers, what did the parents themselves have to say about their own understanding of NCEA? Both in their estimations of how much understanding they had, and in demonstrating what they knew, parents largely confirmed others' assessments of their understanding of the NCEA system. Most parents we interviewed reported that they either "don't understand" the system at all, or, at best, understand only "a little bit". Most commonly, parents recognised that NCEA consists of three levels and that to complete a qualification students must earn *credits*, internally or externally. Few parents reported knowing anything beyond this. One parent mentioned knowing that there are "*approved subjects*", and that she gained this knowledge while employed at her child's high school as a teacher aide.

The second major finding from parent interviews was that many parents do take time and try hard to learn how the system works. (A mother, for example, mentioned taking more than three hours to read through her daughter's "Subject Guide" and discuss her daughter's proposed subject choices.) Parents repeatedly mentioned that they found NCEA a "struggle" and difficult to understand, finding it "hard to get one's head around", "confusing", or "mind boggling". Many parents emphasised that even though it was still limited, what they did know had taken two or three years to learn, often by having had an older child who had "gone through" the NCEA system. Because of their lack of knowledge, or lack of confidence in what they did know, parents reported that they often relied on their children's explanations about the system and what the children told them they needed to do to complete NCEA qualifications.

Specific areas parents found difficult to understand included:

- Their children's NCEA results (including the common abbreviations – some mistaking "A" for *achievement* for a more familiar symbol "A", meaning the highest possible grade; how many *credits* were needed to "complete" a subject; and the significance of external versus internal assessments);
- The difference between alternate versions of the same subject (e.g. English 100, English 101, and English 102), and the significance of their children being allocated to one of these;
- The difference between *unit* and *achievement standards* and what link, if any, these had to different versions of the same subject, or their relevance to more advanced (including university) studies;

- Requirements for the UE qualification and what subjects and *credits* were needed to enrol in a university, or the qualifications needed for entry into other tertiary education programmes.
- The possible differences between a formal UE qualification and the more specific entry standards set by individual universities, particularly for limited entry programmes.

Without a detailed understanding of the NCEA system, many parents felt unable to offer clear or specific advice on subject choices to their children. Some, for example, insisted that their children had to take mathematics, but had no appreciation that “applied mathematics” based solely on *unit standards* at Level 1 or 2, for example, would not qualify them for more advanced study later on, e.g. Level 3 physics or mathematics with calculus. Parents who reported that they were aware of their children’s aspirations and career plans struggled to come up with appropriate advice on how those aspirations could be realised at each step of the pathway through secondary school. The following example shows a parent who is very supportive of his daughter’s career aspirations and wanting to make sure she is completing appropriate NCEA subjects in preparation for tertiary education. Unable to understand the reasons for the advice his daughter had received from the school, he seeks to speak with her teachers. Yet, worryingly, he leaves the meeting without an adequate explanation and consequently, without an improved understanding and ability to support his daughter in making the right subject choices:

She told me she want to be a teacher... It's very hard for me because, like I said, I didn't finish school... Last year we went to the school and... got her report and she told me that she select her subject for this year for the NCEA... She came over here and I saw the subjects including... social studies and accounting. And she didn't do... the computer, but she was the top in computer last year. Then we came over and asked the teacher "Why?" I don't understand how they separate them into a group like 101, 102, I don't understand that. And the teacher said "That's why, because if she take computer she can't take the history or social studies or whatever. She had to take another choice". I told him "Why?" I just ask because I don't know why she was the top in the computer last year and this year... they didn't give her a chance to continue on and... they said "Okay, she going to take that" and she left accounting... I said "I like the accounting, can't she take accounting and computer". Then teacher said "No, if she take computers she has to left accounting, take the computer and history". (Overseas-born Tongan father of Year 11 student)

The above example illustrates not only how considerations other than student choice determine what subjects are available to a student, but also how difficult it can be for parents to understand the rationale for decisions schools make in relation to their children.

Limited knowledge of NCEA also means that parents have difficulty tracking their child's progress towards completing required qualifications, whether this be a certificate, UE, or the most appropriate set of subjects for entry into a specific university programme of study. Not only might the parents *not* understand their child's Record of Achievement, they also lack a set of criteria against which to judge their children's progress and accomplishments. As in the example below, where a student had failed to complete a certificate by falling two *credits* short of the required minimum, this can prevent parents from being able to monitor their children's progress and try to remedy the situation before it is too late:

I kind of thought he was doing okay but it was a bit of a shock when he got the letter in the mail saying he got 78 credits and hadn't got the 80 and I felt that maybe if I'd been onto it a bit earlier and pushed him [he would have completed 80 credits]. (New Zealand-born European/Pākehā mother)

This example shows how a failure to successfully complete a single *standard* (perhaps less than three percent of the year's work) can mean the difference between achieving or failing to achieve a NCEA qualification. If parents struggle with such implications of the NCEA system, are their children in a better position to navigate their way through the system?

6.1.3 What students know about NCEA

Although NCEA has been the national framework for secondary school achievement since its introduction in 2002, each student is introduced to the system after entry to secondary schooling. The first two years of high school (Years 9 and 10) are not subject to NCEA regulations or requirements, although even at this early stage the subject choices that are available to students (e.g. Te Reo Māori, and other languages) can determine later NCEA subject choices. It is also possible for some students to attempt NCEA *standards* while still in Years 9 or 10. By the end of Year 10, however, students are required to nominate elective subjects they want to study the following year. Thereafter, unless their school provides an alternative qualification, students are required to make NCEA subject choices that will set them on particular educational pathways.

Our key finding from interviews with students is that their understanding of the NCEA system is variable. Although some students are confident and clear in their understanding of the system, others are confused and unsure. Significantly, we found only a small group of students who had a clear and confident understanding of the system and who were able to choose their subjects and educational pathways in a way that maximised the benefits of flexibility within the NCEA framework. For example, a

student interviewed at the end of Year 13 described how he had completed all the requirements for UE and Level 3 Certificate by the end of the previous year, choosing mostly science subjects in order to improve his chances of achieving *merit* and *excellence* in at least 80 *credits* from Level 3 *approved* subjects. This would place him in a strong position when competing for a place in a limited-entry programme at university. More than that, this student returned to school in Year 13 and chose subjects from humanities that would help hone his critical thinking and writing skills, strengthening his preparation for university study, while also leaving him time for extracurricular activities and development of social and leadership skills, without jeopardising his overall academic achievement. It is evident that NCEA provides for such a pathway, but this was an exceptional case. More commonly, we found that even senior students lacked knowledge or acted on misunderstandings about specific NCEA requirements.

Some students were clear about what they did not know, admitting to not understanding the difference between *unit* and *achievement standards*, between *approved* and other subjects, or not knowing all the requirements for completion of a specific Level Certificate or UE. Other students felt unsure about NCEA requirements and reported being “confused” about the system, as in the case of this Year 12 student:

I'm not sure this year how it works and stuff... Everyone says like you get credits from last year but yeah, I'm not sure how it works. (Overseas-born European/Pākehā Year 12 male student)

Other students were confident in their understanding of NCEA but their comments indicated serious errors of fact. These students were not aware of what they did not know. This surfaced in interviews when students discussed their achievements and plans, particularly in relation to the UE qualification. Some assumed that having met only the literacy and numeracy conditions of UE they had met all the conditions and achieved UE, as in the comment from a Year 12 student quoted below:

I've just found out that I've passed Level 2 and I've gotten all my University Entrance and stuff like that, already done. So I'm just really staying here for the extra stuff. (New Zealand-born European/Pākehā Year 12 male student)

This student's records, however, showed that he had not completed any Level 3 subjects, let alone any from the *approved list*, and had therefore failed to meet other conditions of the UE qualification.

Most students had a good understanding of the *credit* system and how they could earn the *credits* they needed. They understood that *unit standards* were different from *achievement standards*, and that *external assessments* (in the form of end-of-year examinations assessed by independent markers) were very different from *internal*

assessments (conducted during the year on smaller pieces of work by their own teachers), but not always about the significance and full implications of these differences. This was evident not only in what students said directly but also in the reasons they gave for preferring options such as *unit standards* and *internal assessments*, particularly when they also indicated that they wanted to achieve UE and go on to tertiary studies.

Students were generally more aware than their parents of the practical differences between different *versions* of the same subject which allow schools to group together students of similar ability (as determined by standardised tests at Year 8 or 9 and subsequent academic performance). Those who are aware of the preparation needed for university studies are also aware of the clear advantage of being allocated to classes that have the more “academic” versions of subjects, and which draw mainly on *achievement standards* for content and include *external assessments*. As one of the students explained:

101 is like... it's just a ranking... Like in 101s and 201s you do achievement standards and unit standards however, at the externals the unit standards are just tests to see if you would pass the end-of-years, and if you pass externals at the [end of the] year that means those unit standards are cancelled out and replaced with achievement standards. 'Cause achievement standards are worth more than just achieved, like a merit and excellence as well. So like 102 and 202 classes, that means you mainly do unit standards and internal assessment, that means you don't do externals most of the time. So then that would mean you don't get as high a grade as those in 101. (Overseas-born Asian Year 12 female student)

Some students did not understand the implications of being allocated to a particular version of a subject, while others became aware of this only later. Other students were aware of what allocation to a “*unit standards* only” class would mean in terms of their future options but were not necessarily able to act on that knowledge and achieve a more appropriate allocation. As in the example below, a student whose previous test results determined his class allocation might not be moved to a different class, even when he appeared to have the academic ability and needed to complete *achievement standards*:

When I was Year 10... I wanted to go to uni[versity] but I didn't have the right qualifications 'cause of the subjects I took and like other things, getting put in the wrong classes 'cause, 'cause of what the deans had to say and all that. 'Cause that year,... Year 10, Year 11, when I was doing... unit standards for maths, I'd fly through the class. It was... real easy for me. And the teacher knew, there was a group of us that were doing these and they still didn't do anything about it [moving students to an academically more challenging class]. (New Zealand-born Kiribati Year 13 male student)

6.1.4 Sources of information on NCEA

Given that detailed understanding of the NCEA system is an exception rather than the rule for parents, and is a problem for many students, we asked both groups how and from where they obtained information about NCEA, and how comprehensible and helpful such information was. The answers we received indicated strongly that schools were the main source of information for both students and parents, but that such information was often insufficient to make the parents feel confident that they could help their children make informed decisions.

You could say I don't understand it because I haven't read it, but I have read through some of it and it seemed to be a lot of wordiness but I couldn't really decipher what was going on. (Overseas-born European/Pākehā father of Year 13 student)

Aspects of the information were confusing or misunderstood, important details were absent, and, very often, the reasons for what was available, or not available, to individual students was not explained. Parents appreciated individual help in coming to terms with the information sent to them:

When I got the information from the school they sent... information pack. I read through it and it was a bit confusing at the beginning, but when I spoke to people, I actually spoke to her dean at the time, and they took their time to make me understand what was going on and when. (New Zealand-born Nuiean mother of Year 12 student)

The most comprehensive information about subject choices came in the form of a "Curriculum Guide" (or a similarly named document) each school develops and provides to its students. Such documents usually provide a brief summary of the overall NCEA framework and the *credits* needed to achieve specific qualifications (e.g. Level 1 Certificate, or UE). They list the subjects the school will be teaching the following year, and usually provide a brief description of each subject's content and any prerequisites required for entry to the subject at a particular level. There is a great deal of variability in relation to what other information might be provided. Some schools list:

- all the *standards* that make up each particular subject;
- the category (*unit* or *achievement*) of each *standard*;
- the nature of assessment (internal or external) for each *standard*;
- the number of *credits* attached to each *standard*;
- any additional qualifications to which *credits* earned in specific subjects can contribute (e.g. a subject such as Computer Studies can contribute to a National Certificate in Computing).

Other schools might omit information on which *standards* are included, or how each is assessed, or how many *credits* are available in the subject. Without such details a

student might opt for a subject, expecting to be able to achieve the full 24 *credits* normally offered in each NCEA subject⁷ and to attain at least some *credits* with *merit* or *excellence*, but could find later that the subject is limited to fewer than 24 *credits* and is made up solely of *unit standards*.

Depending on the number of NCEA subjects offered within a school, and the amount of detail provided for each one, curriculum guides can be lengthy documents, typically over 50 pages. Schools recognise that reading through the whole document and comprehending the information fully can be a daunting task for students, and especially for their parents. Other approaches schools use include parent-teacher meetings, and career and subject “expos” – functions during which students and parents can get more information, ask questions, and receive advice:

You get the information sent home in their mail outs. You get told information at their... parent interviews, and you get an opportunity then that if you don't understand it; in the first couple of years I didn't. You can then ask for explanation and for guidance on, well, “what do they have to do now to achieve those internal credits?” or, “have they missed the opportunity?”, and as well as “what do they do to prepare for the external credits?”, and things like that. (Overseas-born European/Pākehā mother)

As is evident in the above comments, more informal and, importantly, more personal discussions with teachers that allowed parents to ask specific questions relevant to their child's situation, were seen as critical. Students also reported gaining most of the information they needed from their teachers, although the type of information provided tended to vary with the teacher's role within the school. Subject teachers, for example, provided information about *credits*, *standards*, and assessments within their subjects, and the achievements necessary for progression in the same subject to more advanced levels. Subject teachers were also the ones who encouraged some students to continue with the same subject, or conversely, advised students to consider other options because the student would find the subject “too hard” or might find another subject more enjoyable or more appropriate to his or her learning needs.

My geography teacher last year wanted me to do geography this year because I was quite good at geography last year. (New Zealand-born European/Pākehā Year 12 female student)

Form teachers and deans were seen as having a broader picture of each student's performance and the subject options available to them. Students tended to rely on their form teachers for progress information (how many *credits* they had achieved

⁷ Students are generally expected to enrol in five subjects and to complete 120 *credits* per year, i.e. 24 *credits* per subject, although research cited earlier indicates that some students do not attempt and therefore are not in a position to complete this number of credits.

during the year, and whether they were on track with the *standards* and *credits* they were expected to complete for the year). The extent to which individual form teachers met students' needs for relevant information varied. Some were reported to be extremely helpful and proactive; others less so.

When it came to career advice, and especially information on what subjects students needed to choose and how many *credits* at particular levels they needed to complete for entry to tertiary education courses or in preparation for employment in a particular field, students relied on career guidance counsellors. Again, individual counsellors varied in the extent to which they were perceived as helpful and able to provide relevant information, but overall, they were seen as having the most comprehensive understanding of the NCEA system and the all-important links between subject choices at each level of NCEA and eventual career plans.

I might talk to the careers department because if I find a course or career I want to do I might then need a change in my subjects... They'll probably know which subjects I need to take. (New Zealand-born European/Pākehā Year 12 female student)

Because they are aware of the efforts schools make to inform students and parents, teachers tended to see information about NCEA as readily available. Their perception was that the problem lay with parents (and students) not accessing the available information, or relying on inappropriate sources such as media reports of the NCEA versus Cambridge International Exams controversy. Teachers were often critical of parents who did not attend school events organised with the aim of informing parents and encouraging them to be more involved in their children's schooling:

I think the school's given the parents lots of opportunities to come in and learn about NCEA, so the school's done all it can. They have meetings each year that parents can come to, and there's lots of information put in newsletters that go home, or on our school website. Or whenever we have career evenings or options evenings, there's always a lot of NCEA information that they can receive, either written or verbal. (Female teacher)

The parents we interviewed acknowledged the effort made by schools to provide NCEA related information through newsletters, information sheets, curriculum guides and parent-teacher interviews. From the parents' perspective the problem was not necessarily accessing information, but understanding it:

We got lots of information about it but... when you're coming from the old [system] it's so hard to get your head round a whole new [system]... it's not going to happen overnight. (New Zealand-born European/Pākehā mother of Year 12 student)

The parents' plea (appreciated by many teachers) was for the information to be "deciphered", made clearer, and made relevant to their needs as parents, so they could play a more active role in ensuring their children did the work expected of them:

It would be nice to have something that comes and it's fairly basic. That would have a breakdown of where the credits are and how many internals and... I never know when their internal exams are either. (New Zealand-born Māori mother of Year 13 student)

One of the four schools involved in our research had instituted a new, comprehensive approach to academic counselling with their students immediately before the start of data collection for our project. Part of the new approach involved inviting parents to attend a set appointment with their child and the child's form teacher and to spend 20 – 30 minutes reviewing subject choices, student's performance and future plans. Parents' response was very high and over 70 percent attended the appointment. Teachers, parents and students from this school were very positive in their comments about the value of the new approach.

Many parents, however, were less inclined to attend parent-teacher interviews or meetings, and even those who attended were likely to feel intimidated by the prospect of a discussion they felt they would not understand:

There's information out there. Every time we go [to the school, the teachers] say "oh we'll be explaining NCEA today" and you go "Oh no! It might be too hard for me". It seems a bit complicated. (New Zealand-born European/Pākehā mother of Year 11 student)

Some parents reported that they found less formal meetings with individual teachers very helpful and supportive, helping them to come to grips with difficult concepts and providing clear answers to specific questions. Other parents expressed frustration when meetings with teachers were unproductive and they came away still unable to understand how the NCEA system worked in practice. More importantly, they felt that neither the school nor they as parents were helping their children to make the most appropriate study choices:

I need someone to help her... Choose the right subjects... No one helps... I feel, I made a mistake [suggesting a particular subject], but like I said, [the teacher] just told me... if she take that subject, it will go together with that subject, not that subject. Because they, they separate them in different classes like that... I don't understand and right now I don't understand... (Overseas-born Tongan father of Year 11 student)

In the absence of more authoritative information they could understand, parents sometimes relied for advice on their older children (who had experience of the NCEA system), or simply had to trust that the child currently at high school would provide them with relevant information.

6.1.5 Changes and challenges facing teachers and schools

In order to gain a clearer understanding of the context in which they work, we asked teachers to comment on what they perceived to be the main changes and challenges facing them and their schools.

Changes

Teachers commented on three main areas of change:

First, the increasing size of schools and the concomitant increase in non-teaching work, including managing student behaviours, organisational and planning activities, and more frequent deadlines, was a major area of change as well as concern for teachers. The NCEA system contributed to the growing complexity of their work, particularly in the planning and management of remedial activities and reassessment of students, and the moderation of internal assessments.

Second, teachers noted that the ethnic mix of students was changing. This change created demands for a wider range of subjects, impacted on the school decile and the resources families were seen as able to contribute to school activities, and impacted on teachers and their work. Some teachers presented such changes in positive terms, commenting on plans to introduce new subjects such as Samoan language, greater acknowledgement of kaupapa Māori within the culture of the school, or activities designed to improve academic outcomes for Māori and Pacific students. Other teachers lamented the loss of students from middle-class and professional families who were moving to other schools, and the overall deterioration in student behaviour and discipline. As one teacher commented:

When I was here... in my early days of teaching,... I don't remember having major discipline problems; I don't remember having major detentions or reporting kids to deans, or anything like that. I remember it being a fairly easy school to teach at... now to be a good teacher you have to be a wonderful manager of behaviour. So if you manage behaviour, you can have your teachable moments. (Female teacher)

The third area of change related to leadership provided by the school principal and the senior management team. Changes at this level often involved organisational restructuring as well as curriculum and timetabling changes, and other alterations to teachers' work. Leadership styles could have a profound impact on the school community and on how teachers saw their work, as might the tenure of any individual leader, some leaving before the changes they initiated had made a difference. Sometimes more could be achieved by going more slowly:

The thing I love about the present principal is that he's prepared for the long haul I think. He's not interested in any quick solutions. He's really here to say,

“well ... yes, this change does take a long time”, and he’s doing it slowly. (Male teacher)

Challenges

Some teachers commented on broad issues such as the pace of social change, including changes in government policies. Some also brought up the challenge of working within what they saw as a “hegemonic” educational system, which they felt did not allow them to meet the learning needs of their students in culturally appropriate ways. Others commented on the difficulties of attracting and keeping good teachers in low-decile schools, and the need for greater financial resources – to employ additional staff (including career guidance counsellors and teacher aides), to allow them to teach subjects that involve extra costs, and to provide adequate pathways for both “academic” and “vocational” students.

Teachers also raised concerns about destructive external influences on student behaviour, motivation, and achievement, including the attraction of youth gangs, drugs, and violence:

I think one of the biggest challenges is ... keeping the school environment separate from the social environments sometimes the kids are in, because they tend to bring the baggage of their street crews and that kind of stuff in with them into school. And then when they leave school it’s like a complete switch... they’re not engaged with school when outside the school hours ... Homework is a major issue at this school, not in every case but... a large chunk of the students don’t get homework done because of issues at home. (Male teacher)

Most comments, however, focused on the students and on the teachers’ ability to understand them, motivate them, and contribute to their academic achievement. The NCEA system itself contributed to the challenge by its demand on students to understand the importance of subject choices and to begin to plan as early as Year 9, to meet assessment requirements throughout the year, and to learn to constantly balance academic work with other demands on their time. Teachers talked a lot about the challenge of keeping students “on track”, getting them to “focus on their work”, helping them to value academic achievement, and to become “more independent learners” and “more responsible for their own learning”.

Two patterns were evident in how teachers constructed the challenge of working with students. First, those who saw themselves as working in partnership with students and other teachers talked about positive goals – lifting academic performance and seeing specific outcomes. Even in the face of major challenges, teachers talked about the need to understand each student as an individual with unique life experiences, and the need for them as teachers to acknowledge each student’s individual abilities. They identified specific areas to which their energies could be directed, such as “raising students’

expectations of themselves” and working on increasing students’ confidence outside the familiar school environment. They also communicated a sense of connection with their students and they reported setting achievable goals:

Challenges... Getting some of our kids focused in class to... get their work done... Getting them to understand early enough that it’s all so important, you know, our Year 10s... Some of them go off track a wee bit there, that’s a bit of a challenge for us to keep them, keep them here in school, coming to school every day, coming to class. (Female teacher)

The second pattern suggested less ownership of the challenge, and a less optimistic view of the teachers’ capacity to do anything about it. Poor attendance, poor work habits, failure to complete homework, and poor academic outcomes were presented as part of the school “demographic”, or as givens that were simply there:

Lack of values in the students, lack of respect for one another and for anybody else, even for themselves, I think that’s the main thing. And I think that it rears up every day. It’s the language that’s spoken, it’s... the self-centeredness of the students, and I guess, I don’t know, I’m old so it might be just the new generation, but it is a problem here, and teachers are finding that a lot of time is spent on behaviour problems rather than academic problems... (Female teacher)

Overall, teachers expressed concern for the students they were teaching and the extent to which they could make a positive difference to these young people’s lives. They acknowledged the complex nature of the environment in which they worked and identified social rather than academic aspects of their work as posing the greatest challenge to them as individuals and to their schools.

6.2 Who is making NCEA course choices?

Although the underlying assumption of the NCEA framework is that students are able to exercise choice and thus access subjects that best meet their abilities, needs, and interests, previous research has identified that students are not always the ones who decide which subjects they will study. At the very least, their decisions are likely to be influenced by many external factors, including their school, family and peers. Our findings indicate a number of different ways in which NCEA course choices are made, and the fluidity within different options. For example, a Year 13 student might choose three subjects from the *approved list* in order to achieve UE, another subject because of parental advice and a fifth subject out of personal interest or to reduce the pressure of external assessments. One or more of these choices might be changed if the school decides that the student lacks the school-prescribed prerequisites, there is a timetable clash, or a teacher challenges the choices and persuades the student to make a change.

Notwithstanding such individual cases, overall, four main patterns of decision making were identified from the data:

- NCEA course choices made largely by parents, or through consultation between parents and students;
- NCEA course choices made largely by students acting on their own, or by students influenced by their peers;
- NCEA course choices made largely by teachers/schools, or through consultation between teachers/schools and students;
- NCEA course choices made through a three-way consultation process involving students, parents, and teachers/schools.

While these patterns were distinctive, they were not always mutually exclusive. For example, parents sometimes insisted that their children take specific “core” subjects such as mathematics or science, but were happy to allow them to choose an “optional” subject such as photography or sports academy because the child was interested in the subject or wanted to take a subject his or her friends were also taking.

6.2.1 Parents making decisions

In some cases parents reported taking a dominant role and deciding which subjects their children would study. This was the least common pattern but a significant one. Its significance lies in the observation that teachers tended to view parental control over their children’s study choices in a negative light; to ascribe parental aspirations for their children’s education to specific ethnic groups; and to see parental decisions as contrary to their children’s individual aspirations or even their best interests:

I think with our school community the parents probably have a bit more input than they should have, I say that because a lot of our parents are focused on... wanting their children..., they want their children to succeed perhaps where they have not, you know, a better life for them, for their kids than they’ve got themselves. And there is still an idea among many of our community that university is the only way to achieve that. (Male teacher)

Some cultures dictate... the money, the kudos, the status jobs you must go for... You want to be a cook, but no, they want you to be a brain surgeon, so family pressure is there and you do what your parents tell you. Middle Eastern cultures, Asian cultures – the authority of the parents is huge. (Female teacher)

Parents and children tended to see the situation somewhat differently. Children were not necessarily averse to accepting their parents’ decisions, and some were clearly aware of not being ready to make important decisions with long-term consequences independently. Parents who reported making decisions for their children came from

across the ethnic spectrum, and did not always see university education as the ultimate goal for their child.

These parents felt that they knew their children, including their abilities, aspirations and inclinations. They also judged the extent to which each child was mature enough to make decisions that would affect his or her future options. Often parents discussed the options with each other, and with their child, sought information, and considered alternatives. But having decided what was in the best interests of their child, they insisted on those choices. As one parent said:

Because my older children know what I'm like with their education, and if I feel that this subject is best for what she wants to go for, and I've got all the information, they won't have a choice, they'll take it. (New Zealand-born Nuiean mother of Year 12 student)

In other cases, certain core subjects were simply not negotiable. As a parent, whose son might have been inclined to take an easier option, insisted:

I guess I never really... let him even consider not doing [core subjects]. Well, he had to do English and Maths. (New Zealand-born Māori mother of Year 13 student)

Parents who took control of their children's NCEA choices indicated that their children's future opportunities came first, rather than allowing their children to "make mistakes" that would limit their opportunities later. These parents expected to be supported in their decisions by the school, particularly when they or their children made specific requests to change a subject or class to which they had been allocated, but did not always receive the response they wanted. A parent recalled an earlier experience that has stayed with her:

At one particular school I tried to [request a change of subject] and was told it was none of my business what my kids chose. That was, yeah, a bit hard. [Daughter] didn't want to deal with the teacher and so [she] asked me to ring up and, yeah, I kind of got told that. [So she told her children] they had to face up to the teachers themselves and had to push it because I wasn't going to let [daughter] choose something that wasn't [appropriate]. (New Zealand-born Māori mother of Year 11 student)

The students' view

Although they did not like being told what to do, students whose parents, or other guardians, had a controlling influence over their subject choices usually accepted the benevolent intent of their elders' decisions. Students' comments about "being pushed" or "made to take" particular subjects were generally positive and they often qualified their comments with statements of approval about their parents' choices, as in the following example:

My Dad wanted me to take all approved subjects... I had to take all approved... But then, I didn't really want to take any of the unapproved either, so it wasn't like I didn't have a choice. (New Zealand-born Māori Year 13 female student)

While some parents might have disregarded their children's wishes, more commonly, there was evidence of discussion and negotiation. Nevertheless, in these cases, final decisions rested with the parent, particularly in the first two or three years of high school:

Working with my son I found out the benefits... of these subjects, and it was my job to pass it on to him. Not leaving him out of the decision making. All I was doing was helping him to make an informed decision. As a parent, it's my job... Yeah, okay, you can leave it to the school, but that's the professional side of things... At the end of day the parent has the final say and the child will listen to the parent more... So that's how we made our decision for Year 10, and for Year 11. (New Zealand-born Māori mother of Year 12 student)

More commonly, parents reported taking on a more supportive role, discussing options and contributing to their children's decisions, without appearing to take over.

6.2.2 Parents contributing to decisions

Many of the parents we interviewed indicated that they took great interest in their children's schooling and subject choices. They stressed the guiding and supportive nature of their role in the process, and their preparedness to be convinced of the merits of the apparently less than ideal choices their children sometimes put forward. At times parents tried to ensure that subjects such as mathematics were included, even when their children preferred otherwise. In other cases, parents suggested a subject for its personal rather than purely academic value. For example, a mother wanted her daughter to take drama "so that she could have a bit more confidence in herself and speak up more". Eventually, after a long discussion, she accepted her daughter's own choices:

So I read the whole book [school senior curriculum guide] from cover to cover and then I asked questions. "Why are you choosing this? Why are you choosing that?" Her reasons to me were good enough for me to accept. Why? Because she's not twelve and to me she has to start somewhere in making decisions for her future. Even though I had turned around and said "well, I disagree with this, but I feel you're mature enough to make your reasons why you want to go down that path, so I'm just going to support your decisions". (New Zealand-born European/Pākehā mother of Year 12 student)

Parents who talked about active involvement also stressed the need to understand which subjects were available, what content was included, how many *credits* could be achieved, and how specific subjects related to their children's overall aspirations.

We sat down and we went through her curriculum book... nearly three hours we sat there. We were discussing this, and discussing that, and sorting out credits, and what she was aiming for, and all this. (New Zealand-born Nuiean mother of Year 12 student)

What characterised parental involvement in their children's NCEA course choices was not the intent to control their children's education but a commitment to helping them make the most suitable and appropriate decisions. Often, the initial preferences came from the child, the pros and cons were discussed, and parents sought to reassure themselves that the chosen path was good for their child:

We did sit down with our daughter and discussed what she should take for where she wants to go. What she plans to do with her life at this stage, and which subjects would be best suited to her. (New Zealand-born European/Pākehā caregiver of Year 12 student)

The students' view

When students talked of seeking advice, a grandparent, an older sibling, or a member of the extended family was sometimes mentioned, most often because this person was either the primary guardian or was looked up to as someone who could be trusted to provide sound advice. But most of the students who indicated that they made their course choices in consultation with family members named one or both parents as the people from whom they sought advice or support.

... influenced by Dad a lot, 'cause he's a hard worker. Told me how to do things, taught me how to work myself, how to look after myself, and so I've talked to him a bit more so than anyone else... just my Mum and Dad. Just because I valued what they said more than other people... it was good; they helped out a lot. (Overseas-born Māori Year 13 male student)

Often, students wanted reassurance and approval for the choices they were making, and sometimes, they needed an older person to tip them in a particular direction when they were unable to decide between equally attractive options, or simply did not know what to choose. A student with a strong interest in sport, for example, chose to also do computing, on her mother's advice:

Because I talked to Mum about that, because she reckons that, like if I leave school and I know like the basics about computers, I could get a job in an office or something, so that's why I took that. (New Zealand-born European/Pākehā Year 12 female student)

Sometimes they just needed a sounding board, such as a student whose grandmother was a key person in her life:

My Nana listened to me, and I listened to her, but at the end of the day it was about what I wanted to do, and what I would be good at, so I won! (laughing). (New Zealand-born Māori Year 12 female student)

Overall, students who talked about their family's involvement in their NCEA course choices did so in very positive terms. Talking over the options before making a decision was helpful, and while others' opinions were not always followed, they were seen as important in clarifying the reasons for specific choices. Students valued their parents' or

other elders' interest and involvement, and they spoke with confidence about the choices they made.

The teachers' view

Overall, very few of the teachers who took part in the study mentioned the parents' or families' role in students' NCEA course choices. Except for the few parents that teachers saw as having a controlling influence, other parents tended to be seen as having limited involvement in their children's decisions. "A little bit of input, but not much" was a statement that probably summed up this view. As far as teachers were concerned, parents who took a constructive role in their children's schooling were those who had "solid jobs", whose children had shown strong academic potential, and who expected their children to go on to university education. These were also the parents who "come to parent-teacher interviews", who ask questions, and "who really take their jobs as parents seriously", but play a supportive rather than a dominating influence in their children's schooling. Given that teachers generally felt that most parents did not understand the NCEA system, it is perhaps not surprising that they did not see most of them as active or helpful contributors to their children's educational decisions.

6.2.3 Students deciding on their own

While only a small number of students, parents and teachers saw parents as either sole or main decision makers in relation to their children's NCEA course choices, many more saw the students as making decisions on their own or with little input from their elders. It might be expected that as students mature and reach the senior years of high school they would be making more independent decisions. This is supported by the data. What we did not expect was the number of junior high school students who reported making their course choices independently, and the number of parents of junior students who confirmed this.

Students in Years 9 and 10 have limited choice in what they study and when and how they are assessed. Yet even at this early stage, specific choices can facilitate or block future options. While core subjects such as English, Science and Mathematics are usually compulsory, by Year 10 students can choose one or two other subjects from the optional list. This is particularly important for languages such as Japanese or French where NCEA level courses require prior study of the specific language.

Younger students reported choosing on their own because their parents did not understand the NCEA system and the options available to them, their parents did not care about their choices or were not around to help them choose, the students insisted

on choosing only what they wanted to do and were not interested in others' advice, or they resisted parents' or teachers' guidance, even if they did not always succeed in doing the subjects of their choice. Following examples illustrate the stances taken by these students:

What I want to do is what I want to do. (New Zealand-born Māori Year 10 male student)

I just picked, like, my favourite ones, and the subjects that I am doing good at last year. [Researcher: What did your mum say about your choices?] *She said it was alright. 'Cause she doesn't really talk that much, she is one of those mums... like, she will agree to anything.* (New Zealand-born Cook Island Māori Year 11 female student)

Older students in the final two years of high school tended to present more informed and clearer reasons for their choices and for making them on their own. Some indicated that their parents trusted them at this stage to make good choices that suited their interests and abilities, while some were (still) in a situation of not having parents who understood the NCEA system or felt able to participate in their children's decisions.

I do think about [the subjects]... if they are going to be useful for my future, and I always think about how many credits they have, because I don't take a subject that doesn't have many credits. And I think about the prerequisites to get into them. (New Zealand-born European/Pākehā Year 12 female student)

Mum and Dad, like, think I am super sensible, and they don't really know a heck of a lot about NCEA and how it all works. (New Zealand-born Māori Year 12 female student)

While students can be influenced by their peers, some senior students were able to appreciate the importance of making their own decisions and drawing back from the group:

Originally, I was going for the same subjects as all my friends, but then I decided... in the future, I am not going to be following them. They are going to do what they want to do. They don't want to do what I want to do. So, instead of [a unit standard based subject] I realised I didn't really want to do that, so I went into accounting.. (New Zealand-born Cook Island Māori Year 13 male student)

The parents' view

Not all the parents whose children indicated that they made their own decisions independently of parents' or teachers' advice participated in the study. Parents who did confirmed that their children made their own choices and that – sometime reluctantly and sometimes willingly – they accepted their children's decisions. Some parents were influenced by their own negative experiences of school and being forced to study subjects in which they had no interest. Their tendency was to take a deliberate “hands-off approach as far as [giving] advice”, and to let their children make their own decisions.

Other parents reported being presented with a *fait accompli* situation:

He sort of made that decision without consultation with anybody. He just came home and said "I've dropped that" [subject]. (New Zealand-born European/Pākehā caregiver of Year 12 student).

While aware of the significance of the subject choices, some parents saw their role to be purely a supportive one, with the child making the decisions:

[We] let her do it. We just help her and support her what choice she make... She do it herself what she want to do, what subject she want to pick, but we talk about it that she pick it herself instead of us. (Overseas-born Tongan mother of Year 11 student)

The teachers' view

Teachers accepted that some students make their own choices without consulting their parents, and that some older students, with more experience of the NCEA system and with clearer career goals, might be in a good position to make "good" decisions. Even so, their responses indicated a cautious and sceptical attitude about students being able to make independent decisions about their studies. Some were adamant that secondary school students are too young to be making decisions that lock them into particular paths:

In this school students tend to choose their subjects on a whim, but I think... students at an age of 14, 15, 16 everywhere tend to do that. (Male teacher)

In their experience, students acting without their elders' advice tend to be impulsive and unwise in their subject choices. They might pick subjects for which they have little preparation and are therefore likely to fail, they choose subjects to be with their friends, or they seek changes when they find out who is teaching a subject they had picked earlier. As well as being inappropriate for the students, teachers saw such choices as creating extra work for teachers and contributing to students' frustrations when they had to be redirected into other subjects. While teachers did not believe that parents should be overly controlling in their children's subject choices, they reported feeling uncomfortable and concerned about students who seemed to be acting on a whim and whose parents seemed unconcerned:

... we get a form back, there is no parent signature, nothing. So we ask the student: "Have you talked to mum and dad about it, or your caregiver?", "I tried but they can't be bothered." In those cases I will phone up and say: "Are you happy with your son or daughter's choices?" and most of the time they'll say: "Yeah", and I know they haven't a clue what's been chosen. (Male teacher)

Academically gifted students, aiming for the top honours and university study in a specific discipline, were seen as the exception. They had all the information and a clear understanding of the NCEA system and the university requirements and often selected subjects that would give them extra advantage. As one teacher said:

The very brightest ones are looking at dux and they work it out... they've got it all calculated to the nth degree... they've got it all worked out... [they] are making the choices knowing the implications and making more confident choices. (Female teacher)

6.2.4 Peer influence on students' decisions

Peer influences are an important part of growing up, and friendships made during the school years can last a lifetime. Peers play an important part in young people's developing sense of identity, values and career plans. Whether positive or negative, such influences can be stronger than those provided by parents. Some of the students we interviewed talked about their choices of subjects, the effort they put into their studies, and their desire to excel being driven, at least in part, by a desire to do better than their friends or classmates. It is not surprising, therefore, to find that peers play a part in NCEA course choices made by high school students, and that students talked openly about such influences. On the other hand, teachers tended to see peer influence in negative terms, while parents were almost completely silent on the topic and did not raise it as an issue.

Students' comments were more nuanced than those of their elders. The reasons they gave for listening to their friends and the effects of decisions made under peer influence varied. Sometimes, it was a simple desire to be with someone they knew and not feel alone:

Yeah, I talk to like a few of my friends and see what they're doing that might influence it because I might not want to be in a class by myself where I know no one. (New Zealand-born European/Pākehā Year 11 male student)

Other reasons included:

- Simply following the group, regardless of the outcome:

Yeah, friends, basically friends. I used to always go where my friends go. So sometimes it was a bad decision to go with my friends... everyone was just saying: "Oh come to this class. All the boys are there. It's going to be cool, and you can chill out." So I took the class too, so basically just chilled out in that class. (New Zealand-born Samoan Year 13 male student)

- Being unable to decide independently:

I talked to my friends and stuff. Sort of asked them if they had an idea of what some things were. Like what they did in photography and stuff. (New Zealand-born European/Pākehā Year 12 female student)

- Choosing independently but wanting peer support:

I chose classes on what I wanted. But I guess that if none of my friends were taking it, I don't know if I would have taken it. (New Zealand-born Asian Year 13 female student)

- Having shared goals with peers:

One of my best friends has the same option as me, because we both want to be architects when we leave... My friends, we all talk to each other. We... talk to each other about what we want to be when we grow up and stuff. My friends are the most people I talk to. (New Zealand-born Tongan Year 11 female student)

- Having peers copying his/her (independent) choices:

They say they want to take the same subject as mine, but I told them if they know they can do it then take it. But they just copy what I am doing because... they want to hang around and stuff. (New Zealand-born Samoan Year 11 female student)

The teachers' view

As indicated earlier, teachers' comments about peer influences on subject choices tended to be couched in negative terms. Perhaps because they appreciated the importance of subject choices, teachers preferred to see some evidence of parental or school guidance, but thought that for students who were influenced strongly by their peers, *"their parents are most of the time a poor second to their friends"*.

Teachers saw peer influence as a dominant and pervasive force, leading to inappropriate choices and impacting on students' learning and behaviour in class. They suggested that students who opted for subjects their friends were doing did so only because of the wish to be with their friends. Such students were usually described as interested largely in the social life of the school and lacking commitment to their academic work:

Unfortunately a lot of choices are done around "my friends. What are my friends doing?"... Kids who don't care too much about schooling and just come here for socialising. You'll find students in the top classes who choose subjects because of their friends... And you've got "well my girlfriend's going to be in there so I'd better be too". So you get those kinds of choices. (Male teacher)

In some instances teachers tried to reduce the influence of peers, sometimes counselling students to make different subject choices and sometimes being more directive. For their part, students reported feeling resentful when they were directed into different subjects for no other reason, as they saw it, than to separate them from their friends:

I spoke to one of my friends about it. 'Cause me and him want to pursue the same thing; we both want to be graphic designers, so yeah, we were just going on about which [subject] we should take, why should we take it... [But later] our dean called us in to confirm our subjects and then he spotted that me and my mate wanted the same thing, so pretty much that was the problem [the student was redirected into another subject]. (New Zealand-born Cook Island Māori Year 11 male student)

Teachers acknowledged that schools and individual teachers can exercise considerable influence over students' subject choices and their pathways through the NCEA system.

6.2.5 Schools and teachers making decisions

Schools exercise structural, directive, and guiding influence over students' NCEA course choices. Whether these choices are made by students acting independently, under pressure or guidance from parents, or under the influence of peers, schools determine the number and range of options available to students and set and administer the rules by which subject choices are realised. Schools themselves are limited by their size, overall resources, the qualifications of teachers they employ, and the need to meet the learning needs of a diverse student body. While these factors might be taken as givens, it is important to acknowledge the role they play in the overall process of NCEA course selection. Even though schools try to meet the needs of individual students, the sheer complexity of the NCEA system, and the logistics of organising learning activities for a large number of students, make this difficult to achieve. As one of the teachers commented, with a sigh:

It's just a straight, number-crunching exercise that schools have to go through. They know what teachers they've got, what those teachers are qualified to teach, what they can offer, how many classes they can have at each of those levels, and therefore they set up their option choices as a form of gate keeping that's not, at our school anyway, it's not free option choice. Because I know some schools where it is completely free option choice..., but here, certain subjects are grouped together, some are offered more than once, some are only offered in one option line, and if it doesn't mesh with a particular combination that you want to do then you can't do that subject and that's the bottom line that dictates what choice you make. It is not necessarily what you want to make, we get lots of clashes, and we get lots of kids who cannot go on with the subjects that they want to take because of the way it's structured and the options. (Male teacher)

On the structural level, schools determine which subjects are taught in any given year. Smaller schools do not have the resources, or the student numbers, to offer the full range of NCEA subjects, particularly at Level 3. The effect is that a school might not offer some *approved list* subjects such as physics, chemistry, mathematics with calculus, or history, at Level 3. (Apart from changing schools, the only option available to students unable to access a particular subject they want to take is to enrol in that subject through correspondence school. This option is far from ideal, as students might not have the independent study skills needed to cope with such an option, and schools seldom have the resources to provide adequate academic support to students studying in this mode.)

Schools with limited resources and small cohorts of senior students might also combine some *standards* from *approved list* subjects with *standards* from other subjects, for example geography and tourism, thus limiting the number of *credits* a student can gain

in either geography or tourism at that level. In such a situation a student who fails a single *standard* can easily fall short of the required minimum number of *credits* required to meet the UE or other qualification requirements.

A limited number of suitable options can also force students to enrol in subjects which are not relevant to their future education plans or in which they have little interest, simply in order to complete the required number of *credits* in an appropriate combination of subjects to gain the UE qualification.

Maybe they've had no experience or have absolutely no desire to study tourism, but in that option line it's physics or tourism. That's what's left over after you've chosen your favourite subjects, and so "well, I'll do tourism". (Male teacher)

Schools also determine which versions of particular subjects are offered and to which students. The effect is that students might have access to a subject but not necessarily to a particular version in terms of its content, level of difficulty, academic challenge, or the *credit* value attached to it:

For example, we also say to the students, "you need to attain maths in Year 10 because... there will be recommendations by the maths department whether you've got to do maths NCEA, or maths applications, or maths unit standards". So there's three different levels of maths. (Male teacher)

Well in maths they don't choose. They are selected by their Year 10 results The deans are often involved, the form teachers, so a range of people are consulted but essentially it is [a teacher] who will say, "these are the 103 groups, these are the 102s, and these are the 101s". (Male teacher)

Yeah, basically at the end of every year... we get a class list and we have to indicate which type of English would be the best for the kids. So when they go into Year 11 there's a choice between 100, which is the very top – one hundred percent achievement standards no unit standards; 101, which is a combination of achievement standards and some unit standards, and then the others are just doing all unit standards and no external exam at all... So we have to make that choice ... For English and maths the kids just have to write down "English" and "maths", and we sort out where they go according to their results. (Female teacher)

The school's control over which version of a core subject students are allocated to, especially on their first encounter with the NCEA system, is a critical element in determining their future options. Given their importance, it is of concern that parents were unaware of the existence of or differences between these different versions of core subjects such as English, mathematics and science. Just as importantly, the implications of being allocated to "*achievement standards only*" versus "*unit standards only*" classes are not always fully understood by the students either, at least not until the following year when they might find their options limited by the nature of the *credits* gained in the previous year.

Teachers reported that exceptions to this rule were always possible but, as in the following example, being recognised as having the potential to succeed in spite of an earlier poor performance was uncommon. Any corrective action depended on a teacher who recognised a student's potential being prepared to advocate for that student:

... if there's a child that's failed awfully, and the teacher has said "this child has so much potential and really should be doing achievement standards", then we might, we might push them ahead, it depends who knows the child. (Female teacher)

Schools determine which standards are selected from a wide range of NCEA specified standards at a particular level or a combination of levels that are available to teachers to include as sub-units within a particular subject. The selection might be influenced by teachers' judgement of what students need to know, what teachers would like or feel competent to teach, and what students might be interested to learn or might be able to master. Selection of specific standards might also be influenced by teachers' preferences for particular forms of assessment (internal or external), and their perceptions of students' preferences or abilities in relation to different forms of assessment. The effect is that students might not be exposed to important topics within a subject while, even when they are fully aware of the implications of their selection, teachers are not necessarily in a position to change the situation:

I've just started teaching NCEA Level 2 biology and I had to choose the modules and I was very concerned that out of the range of modules which I thought didn't even cover the range of topics which you need as, as in basic biology, from this limited pool of topics of standards I then had to choose, narrow down even further, and choose standards I guess which either fitted in or, I guess, I thought would be interesting. For example, I decided not to teach anything about plant biology. Now I'm effectively excluding at a very early age, through my choices, anybody who may be interested in botany, horticulture, any of the plant sciences and that's one example. I also chose to leave out evolution, genetic diversity, these are huge topics in science which are not going to get covered. And when I look at Level 3 next year and I'm planning a course for Level 3, there is no plant biology that I can choose in Level 3 for example. So I've made a decision to exclude plant biology from those children's lives. Now when they go to university they will obviously be at a huge disadvantage... You look at what options are available to you and you choose the ones you think the kids will be motivated to learn the best, I think. (Male teacher)

The effect of teachers' choices might also be that students complete fewer *achievement standards* than they would like in a particular subject, might not be able to gain the maximum number of *credits* in a particular subject at a particular level, or might not be able to demonstrate *merit* or *excellence* in their learning in a full range of *standards* or subjects (if *unit standards* are included).

Choosing the right combination of subjects and assessments and standards and credits, really can influence whether the student actually makes really good

progress through the system and gets to the end... And that's not dictated by NCEA. That is dictated by option choice structures within schools. (Female teacher)

Schools determine how many credits are available to students in any one subject. The effect is that students might be given only limited exposure to a subject and might not receive the grounding expected, for example when a subject is taught for a single semester rather than a full year, offering 12 rather than the usually expected 24 *credits* in a subject, or when a reduced number of *credits* is offered within a subject:

You don't have a choice... All your English classes are decided for you based on your ability and your results. So you don't have a choice as to whether you're 301 or 302... If you're a 302 student we make sure that you get 14 Level 3 credits so that you're not locked out. (Female teacher)

Schools also determine the timetables and therefore the combination of subjects available to individual students. The effect is a further limit on student choices and the possibility of being forced to take inappropriate subjects.

Sometimes it's just impossible to timetable, so you end up with five, what we call bands, and they have to choose a subject from each of those bands to get a timetable that fits. So sometimes, well I mean, a large percentage of them will have a course change... That can be like anywhere between 20 to 40 percent of the students. (Female teacher)

To a certain extent, schools also determine the prerequisites for higher level study. Although it is expected that students wishing to study Level 3 French or mathematics, for example, should have completed some study of these subjects at earlier levels, the schools determine which *standards* and how many *credits* they need to have completed and, sometimes, what results they must have achieved, in order to qualify for study at a higher level. Unless they are very well informed, students, and their parents, are unlikely to be aware of such requirements one or two years ahead of this becoming an issue. Individual teachers, heads of departments, and deans can exercise discretion but as a rule will do so only if a student or parent can put up a special case. More often, students are redirected into another subject that might not be as relevant to their goals and aspirations.

They might want to take maths but they might not be able to take an all achievement standards course if they haven't done well in previous years. So... initially they've got their ideas of what they can do, and then what happens is the school will probably moderate their ideas by saying, "well, you haven't got enough credits, or whatever, to do physics so maybe you should do something else". (Female teacher)

Teachers also commented on the streaming practices within schools, based on academic results, but sometimes also on students' behaviour. Early streaming and grouping of students for behavioural reasons was seen as particularly counterproductive

in relation to students' ability to make their own choices, both at the time and in subsequent years of secondary schooling:

Sometimes we categorise the students too early. If they have a history in Year 10... we say "oh they're a problem" or "they're really good students, and they're really bad students" and that sort of reputation. They're tarred with that reputation for when they hit Year 11 and that obviously is the time when they're hitting national qualifications and being placed in academic or non-academic classes.... That can immediately narrow their choices... If they're put in the classes with all the other bad kids. (Female teacher)

Schools can at times block options for students who are willing to try despite their earlier achievements. In the end it is a matter of professional judgement whether to allow students to attempt a subject, or a set of *standards*, for which they seem ill prepared, and risk failure, or to direct them into another subject, or a set of *standards*, in which they might have little interest or which will not assist them to reach their goals. Schools can also put pressure on students who have academic potential but are not interested in subjects to which they are allocated in order to ensure their academic progression. Neither situation is ideal, and however rare or common such cases, they do serve as necessary reminders that schools and individual teachers hold significant power over students and their pathways through secondary school and beyond. Two examples are provided to illustrate this point:

[Daughter] wanted to do top science. She was tossing up whether to do general science or the science, you know how they split them into biology... and you do each one separately instead of the general. So the bright kids do the biology and the physics and the chemistry... and she could have scraped in with that, she was just kind of on the borderline. And then we had the conversation with Mrs Whatsit and she just told us that it was very difficult and [daughter] would have to be prepared to work very hard and she was just... I got the impression she was trying to tell it like it... this is how [hard] it's going to be. And so we thought about it, and... [daughter] took general science. (New Zealand-born European/Pākehā mother of Year 11 student)

There is one boy in my [subject] who should never have taken that subject. He had no interest in it. It's a really hard subject to do well in, but because he ... has university potential, he was put in that subject. So this is something that the school needs to look at. If a student's got no interest whatsoever in a subject, just because they are [seen as having university potential] doesn't mean that you shove them in there... This kid, I've got a really good relationship with him, but he doesn't want to be, he hates [the subject]... But he is stuck there and he is trying to make the best of it. There are some days we hate each other, but what can you do? I am the only teacher in the end who said "fine". No one else wanted to have him... When the student told me that he had been put into [subject] I thought "this is going to be interesting" and I said, "do you want to take it?" and he said, "no, I absolutely hate the subject!"... We talk about all sorts of things and he routinely tells me that the subject sucks. (Female teacher)

This last example in particular raises questions about the apparently confusing messages this student was being given – selected as academically able and worthy of

being in the small group of students with potential to move successfully into university studies, but unwelcome by individual teachers in subjects he would have preferred to study, finding himself instead doing something he found irrelevant and frustrating.

The parents' view

With few exceptions, the parents we interviewed were positive about the schools their children attended and the role teachers played in their children's education. They tended to accept school policies and practices, and the limitations that timetables and other factors imposed on their children's subject choices. Some were pleased that the school "seems to encourage science" (or art, or sport) as this agreed with their own preferences for their children's education. They did not necessarily challenge the school's decisions, even when this might have disadvantaged their child:

Because he hadn't taken the right ones previously, 'cause he hadn't really known what he was doing until virtually the last minute, he was stuck with certain subjects. (Overseas-born European/Pākehā father of Year 13 student).

Although unhappy with the situation, parents did not necessarily bring to the school's attention the difficulties that specific subjects caused them or their children. In the following excerpt a mother comments on her daughter having to take a subject in which she had no interest and then having to pay for a related activity which the family could not afford:

All along my daughter didn't even want to do it anyway... and I couldn't afford it... When it came to that particular... day, that [activity] was going to be on, I wouldn't allow my daughter to attend the school. That was my way of getting her and I out [of the situation]... it was also to save embarrassment for her in having to answer to that teacher. (New Zealand-born European/Pākehā mother of Year 12 student)

While the parents said little about the dominant role that schools and individual teachers sometimes played in their children's education, the students who experienced the impact more directly were more vocal.

The students' view

The most common comment from students in relation to how much choice schools gave them to select the subjects they wanted to study was about the compulsory subjects. English, mathematics and science came up frequently, usually to indicate how little choice they had in choosing what they wanted to study, or why they were not necessarily interested in subjects they were taking. As one student said, commenting on his previous year's experience:

Science, English and maths were all compulsory... I didn't really want to take science, I'm not comfortable with that, but it was compulsory so we had no say. (New Zealand-born Tongan Year 12 male student)

Students were also acutely aware of timetabling limitations, the penalties for being late in submitting their subject preferences for the following year, or simply having to accommodate school's limitations in what was available to them:

I was put into history 'cause the subject that I wanted wasn't available to me due to my other subjects, so I had to take history. (New Zealand-born Cook Island Māori Year 11 male student)

It got chosen for me, because I was a bit late to come in and choose my subjects. So I got left with some of the left over classes, so it's pretty much my fault for not coming in early and picking my subjects, but yeah... I've never got first pick. I've always just taken the leftover classes... I wanted to do that [subject], but I got left out. There was too many people in that class so I got dropped down to a different class. (New Zealand-born Samoan Year 13 male student)

The last interview excerpt also illustrates a point raised by many students whose choices were changed by the school. Most often they were "dropped down" not only to a different subject but also to a subject that was at a lower NCEA level, or was less academically challenging. Some students shared their disappointment and anger at the barriers that were placed in their way. They seemed to be aware of their past performances and the need to make up the gaps in their learning with greater effort, but felt that they were not given the opportunity to prove that they could do it:

I was told that I [needed to] repeat next year 'cause I didn't have my credits. So I've tried my hardest to get it... see, if I can get up to 30 or 20 [credits] so I can go up [a level], but then they just told me that I am repeating... I had to go and see if I was accepted back into classes, but one class said "no", so that's why I had to do Sports & Rec, because that's the only other class, the only other option. [Researcher: What were you going to do instead?] History... but she [teacher] said that it's too late. [Appeals to her dean were also unsuccessful] He just said... I couldn't get into any other class... if I didn't take it I wouldn't have a class, so I had to... [So how is that going?] I suppose it's all right. Hard work I've never done. I am not the sporty type. I am more into the class and study type of thing. (New Zealand-born Tongan Year 12 female student)

The experience of another student illustrates the extent to which an early decision by the school can thwart educational plans of students who have a clear path in mind but find it blocked at each stage because of an earlier decision. This student's frustration was evident as he spoke of missed opportunities and his concerns for the future, with university study appearing to be out of his reach:

A couple of subjects that I thought I should have been in [in Year 13] but they didn't let me, they didn't give me the choice of getting into the classes 'cause I didn't have the right qualifications from Year 11... I got the subjects that I needed but the one subject that I didn't get was maths. I didn't get maths 'cause of Year 11. That was the year that I had the class with all the bad students, and everyone was mucking around, and they put me into a unit standard class, and I knew that I needed an NCEA achievement pass to get into, like, uni[versity] and all that, so that was my downfall... Year 11, when I was doing unit standards for maths. I'd fly through that class and it was real easy for me. And the teacher knew... and they still didn't do anything about it...

'Cause now I'm doing Level 2 [mathematics] right now and I wanted to do Level 3 for my graphics, so it's just spoilt it for me... Getting put in the wrong classes 'cause of what the deans had to say... I would be doing my graphics and they say for graphics you need Level 3 in maths... so I wish I had Level 3 maths ... We didn't really have a choice. We were just put in that class. (New Zealand-born Kiribati Year 13 male student).

Teachers, more than students or parents, were critical of school practices that limited individual students' options or forced them into specific subjects, whether for academic or behavioural reasons. They also recognised that many students needed information, guidance, and encouragement in relation to their subject choices, and in most cases they tried to be helpful, advising individual students or directing them to others who could.

6.2.6 Students making decisions in consultation with school/teachers

Although some students experienced teachers' advice and directives as limiting their choices, and forcing them into subjects they would have preferred not to take, many students also spoke of helpful input from their teachers, academic counsellors, and career guidance staff. All appreciated praise for their past efforts in a subject and some clearly needed extra encouragement to choose subjects they felt might be too difficult for them. Students' uncertainty or lack of clear goals meant that they both needed, and could be easily influenced by, their teachers' opinions and advice. This was particularly so for students whose parents were unable to provide informed guidance and who were therefore more dependent on their teachers' advice:

They [parents] said "whatever I want", and that was difficult... But... choosing subjects for next year, I wasn't sure what I was gonna do, because my teacher didn't think I would be able to do English next year... 'Cause it's quite a big step, and since it's optional she didn't think I would be... you know, it wouldn't work very well, she didn't think. Some would be over my head. Which I completely agree with. So I was trying to figure out a subject to replace it. (Overseas-born European/Pākehā Year 12 female student)

Even when the intent and outcome are helpful, teachers recognise the power they exercise over students' decisions:

It is a fairly collaborative process but... I think teachers have a good sway over students. (Male teacher)

Frequently, students sought reassurance that they would be capable of studying specific subjects and that those subjects were appropriate. Students who lacked confidence or had doubts about their academic abilities often needed ongoing guidance and reassurance about the necessity and wisdom of their subject choices:

The teachers helped more than my parents did... I just talked to my teachers about what they thought I was capable of... all the teachers tell me I need

science for that [her career option], so I did chemistry, but now looking back on that, I think that I should have taken bio[logy] also, because I found that easier. I should have taken bio[logy] and not art, even though I'm getting my good marks there. (Overseas-born European/Pākehā Year 12 female student)

Well the teachers, particularly the maths, the English, and the art teachers have had big [influence], mainly the maths and English, because they're the [subjects] that I didn't really want to do (laughing)... I find them hard to get motivated in. So they [teachers] had to push, and I kind of agreed, whereas the other [subjects] I kind of... just picked, because I liked doing them. I can find it easy to get motivated... Every year I've found it so difficult to make my choices with my subjects... But I think it's good, because I do end up getting them done and getting the standards and all that sort of thing... But I'm not entirely sure... if I'm going to get in [to university]... it's a bit up in the air... it's very scary. (New Zealand-born European/Pākehā Year 13 female student)

Knowing that their teachers thought them able to cope with specific subjects and capable of going on with their education was an important element in some students' decisions:

Teachers, because at the beginning of the year I wanted to choose tourism but they advised me not to take that class because it's not really a University Entrance class, and they know that I can do better... So that was one way they influenced me to choose another subject. (Overseas-born Cook Island Māori Year 13 female student)

To make a difference, teachers' advice needed to be timely and it needed to be accepted by the students. The evidence from our study indicates that sometimes advice was too late to be of help (e.g. when a student commenced Year 13 and found that lack of specific prerequisites prevented his enrolment in subjects he needed to qualify for UE), the motives were questionable (e.g. when students were encouraged to take a particular subject because the teacher needed the numbers to make the class viable), or students ignored sound advice in order to continue with subjects they found easier.

Teachers' advice was not always related to individual students' abilities or aspirations. Sometimes it was to not choose subjects simply because their friends were choosing them. At other times, teachers provided advice about life that students took as a prescription for taking the course of least resistance:

[Subject] teacher, he is really cool, but he influences us just to travel and enjoy life. So that's pretty much what I'm going to do, yeah, just go with the flow! (New Zealand-born Māori Year 13 female student)

The teachers' view

Teachers we interviewed saw themselves as professionals, and the best qualified to influence students' subject choices, especially with students who were unsure what direction to take, or students who showed potential but were not making choices that would see that potential realised. Teachers reported that they helped students to look at

their individual strengths and “the bigger picture” – life after leaving school. It was evident that many took their advisory role to heart, especially with students who could not rely on their parents for informed and helpful advice, but were also aware of fellow teachers who either did not know enough or were not interested in helping students with their subject options and career plans.

Although some insisted that the advisory process was open and facilitative, “always a discussion”, others described more directive and controlling practices. A teacher who talked of “the kids” having “open choice” of subjects went on to say that once chosen, each subject has to be signed off by a head of department as being “an appropriate choice”, ensuring that the student had met the specified prerequisites and was deemed able to cope with the subject and level of study. Later, when timetables with subject option lines had been constructed, the student might be called back and asked to “re-choose”, if the approved choices did not fit with the school timetable. Further down the line, “there is another point” when students “sit their externals” and receive their results, and “then they are often re-choosing at that point”, perhaps opting to take *unit standards* without external assessments in place of *achievement standards* with external assessments they had not managed to pass.

Teachers were also aware that students’ choices were conditional and dependent on performance, suggesting that students who excelled could be promoted to a more “academic” class, while those who failed to perform were likely to find themselves on a path away from versions of subjects that would prepare them for degree-level study in the future:

For example, a kid takes Level 1 English, or Level 1 maths at Year 11, and doesn't do very well, and... misses on one of the standards. They might then take the unit standards course the next year. (Male teacher)

Some teachers did not see it as their role to advise individual students but were happy to refer them to career guidance counsellors, deans, or other teachers. Some were aware of their own lack of knowledge about specific subjects and NCEA requirements, while others provided examples of advice they gave to students that were clearly inaccurate, such as advising students to enrol in YES (Young Enterprise Scheme), a non-NCEA course, instead of economics or accounting, as best preparation for university study in business or commerce.

Some teachers also took a more sceptical view of the school’s role in guiding students in the choice of subjects and pathways toward careers or further education.

The parents' view

Parents' lack of detailed understanding of the NCEA system made many of them reluctant to take on the responsibility of influencing their children's study choices. Often, they were not sure that their children were capable of making the most appropriate decisions either, without advice from an informed adult, and were therefore reassured when teachers provided confirmation of their children's study choices and plans.

Her form teacher [was helpful]... Because she knew what she wanted to do, [but] she just needed to verify that she was capable of doing it, and what subjects she needed to take. (New Zealand-born European/Pākehā mother of Year 11 student)

Parents who had limited personal contact with individual teachers were, nevertheless, grateful for guidance and encouragement individual teachers provided to their children. A teacher who knew her students in terms of their individual talents and abilities and could encourage them to strive for higher goals than they might otherwise have done was particularly appreciated:

One of [daughter's]... teachers has taken a real personal interest in [her] as a person. Not just with her subject... and has had discussions with [her] about what she saw would be some... great options for her... I think she has a real gifting in that area, she sees potential in young people and she has a real rapport with them as well, and she's really approachable... [Daughter] actually thought of doing perhaps early childhood [education], and then she thought... "massage", and her teacher kind of said "oh I'm sure you could do something better than that". You know, kind of wanting her to set her goals a bit higher. (New Zealand-born European/Pākehā mother of Year 13 student)

Overall, however, parents seemed to have minimal direct contact with their children's teachers, the latter's advice usually communicated to the parents via the children. In many cases parents seemed to play only a peripheral role, there if needed but not usually an integral part of the decision-making process:

They [children] made the choices; they made the choices with the teachers... I think teachers have a lot of say... I do believe a lot of it does come from her [daughter's] decisions; her friends' decisions, and the teachers. And then I'm just the person being told. (New Zealand-born Māori mother of Year 10 student)

6.2.7 Decision-making as a three-way consultation process

Students, parents, and schools have a stake in NCEA subject choices, since all are likely to be affected in some way by the decisions made. Although face-to-face consultation was not reported as the norm, schools generally tried hard to involve parents in their children's subject choices, or to at least ensure that parents were aware of the choices their children were making and agreed with those choices. That is what is supposed to happen and what schools try to make happen:

The staff are supposed to have input. Heads of departments are supposed to sign the students off if they want to take Te Reo, full year maths... And the form

is supposed to go home, and the family is supposed to have a look at it, and have a chat, and sign it off. (Female teacher)

[Junior students] often don't know what they want to do tomorrow let alone when they leave school, bless them, they're lovely. When they first come they're bright, they're enthusiastic... but they rush at everything... They just want to do everything, and I think they choose their options very much on whims, or they try to. That's where we hold them back and... I'm sure if we gave them their option booklets, they'd fill them in on the day they got them and hand them back to the form teacher. And that's why we don't let them do that. We say, "you take it home and when your option choice is filled in, in two, three, or four weeks time, we want a signature of your parent or guardian". (Male teacher)

Most commonly, parental and school input was mediated through the students. They were the ones who had to obtain both the parental and the teachers' approval and the signatures that served as evidence of the input from different parties to the decisions. When the choices made did not meet with everyone's approval, it was often up to the students to negotiate a resolution. Once again, the parents might not have sufficient understanding of the NCEA system to intervene, they might not have the confidence to approach the teachers directly, or they might think it more appropriate to let their child take primary responsibility for ensuring appropriate course choices.

She [daughter] chose them and did that at school, and then when she told me what she was doing I didn't think it was a good idea if she wanted to be a lawyer. So I made her go back and re-discuss it... She did get some changes, so... I was... a little bit more happy with that. Because I didn't think that some of the subjects she took would allow her to get enough credits... I'm hoping that having gone back and re-discussed it, that those people in that role have enough understanding to help her make better choices... A lot of faith's been put on the school's advice. (New Zealand-born Māori mother of Year 11 student)

Other parents, more comfortable with their children making their own decisions, were satisfied that if they and the school had given information and counsel, then that was all that could be done to assist their child make the best possible decisions:

As far as I'm concerned, she's had our input, and she's had the school's. And she is having to think about it herself, even though she may not want to. It's not easy to think about that, it seems like a big pressure perhaps but I think she's done all right. (New Zealand-born European/Pākehā mother of Year 11 student)

In other cases, where parents had more ready access to teachers, the strength of the alliance seemed to be between the parent and the school. Together, they could ensure that, regardless of who exerted the greater influence, the most appropriate options would be chosen:

... the teachers have a really good influence, far above what I have. I'm the mother, but the teachers have a stronger influence and he respects them, so he is going to listen to them. The advantage is, I could whisper in their ear and

they'll listen, and they'll give their advice... (New Zealand-born Māori mother of Year 11 student)

Parents were especially appreciative of teachers they could turn to when decisions their children made were not necessarily the best in their view. They also appreciated evidence of the teachers' knowledge of their children's abilities and potential, and their willingness to encourage them to strive for higher goals. In such situations parents felt that everyone involved acted in their children's best interests:

Last year... they came home and said what they wanted to do, and we said "no, not necessarily"... I think they both wanted to do the soft maths, six months one, to which we said "No. You can do better than that". And when we went and saw the teachers, the teachers reinforced that view... And it was good to have the reinforcement from the teachers, saying, "You are capable of doing [the subject] so why not?" – "Do it!", basically. (New Zealand-born European/Pākehā father of Year 12 students)

What was evident from the data is that, in the experience of students, parents and teachers, the NCEA system does not exist in a singular or ideal form, but in its practical application, dependent on each school and its capacity to work with the system. NCEA course choices are seldom a product of individual students' preferences and decisions alone. Rather, they are a culmination of individual students' more or less well thought out decisions, circumscribed by what schools are able to provide, moderated by qualifying conditions set by individual schools as well as peer and other influences, and reinforced (or not) by students' own and others' perceptions, expectations and aspirations. For students from low-decile schools the pathway to tertiary education is seldom straight forward. Perhaps paradoxically, the very complexity of the NCEA system that gives it its flexibility and potential to meet the learning needs and aspirations of a broad range of students, can also be the source of difficulties that act as stumbling blocks that reduce the number of academically able students completing secondary school with strong enough qualifications to not only enter but succeed in degree-level studies.

Two exemplars are provided to illustrate the issues discussed so far. They concern two students interviewed at the end of their final year of high school so that we were able to access their complete NCEA results. Both of these students appeared bright, articulate, and popular with their peers and teachers. They had a range of interests, including sport, and were seen as having strong leadership qualities. In Year 11 both students demonstrated strong academic potential and readiness to put in the necessary effort. Although their early NCEA results also indicated the need for guidance and help, these students did not ask for it, and were allowed to drift in their subject choices.

Exemplar Case 1: Although this student achieved 123 Level 1 *credits* in Year 11 (almost a third with *merit* or *excellence* and 43 above the minimum needed for Level 1 Certificate), he was allowed to take a further 25 Level 1 *credits* in Year 12, in the meantime failing to achieve in 27 externally assessed Level 2 *credits*. In Year 13 he achieved the bare minimum number of *credits* needed to gain the UE qualification, none with *merit* or *excellence*.

Exemplar Case 2 illustrates even more clearly how an able and gifted student can begin to avoid or to fail external assessments in Year 11, be allowed to take 50 *credits* in hospitality and service sector subjects in Year 12 (without being challenged or helped to do better in external examinations), and end barely meeting the requirements for UE in Year 13, taking new subjects for the first time and failing to achieve passes, particularly in external examinations. His parents expected him to go on to university, but were not aware that the subjects he was taking would not give him the best preparation.

EXEMPLAR CASE 1

This student is an able, articulate, and energetic young man. He enjoys sports and social activities involving his family and friends and considers himself to be a hard working student. He enjoys mathematics and English in particular and is keen to make the most of the learning opportunities at school. Members of his family are supportive and attend the parent-teacher meetings at school. He is encouraged to focus on doing well at school and not be too distracted by social activities.

Year 11

SUBJECT	INTERNAL <i>credits</i> completed	EXTERNAL <i>credits</i> completed	TOTAL <i>credits</i> completed	<i>Credits</i> with MERIT or EXCELLENCE	Failed to achieve*
English L1	19	8	27	6	2 (external)
Mathematics L1	17	12	29	6	4 (external)
Science L1 (including 2 <i>credits</i> in chemistry and 2 <i>credits</i> in biology)	8	15	23	4	
Physical Education L1	22	0	22	16	
Technology L1	18	4	22	6	
Total credits	84 (100% pass rate)	39 (87% pass rate)	123 (95% overall pass rate)	38	6

Comments on Year 11: He was enrolled in five subjects in his first year of NCEA, taking on a significant number of *standards* that are assessed externally. He completed the year with 123 *credits* in five subjects with an overall pass rate of 95 percent. He was able to achieve *merit* or *excellence* in 31 percent of the *standards* he completed and the only “fail” on his record is for six externally assessed *credits*. He met (and exceeded) the requirements for the award of NCEA Level 1. His record suggests that he is an able and diligent student.

Year 12

SUBJECT	INTERNAL <i>credits</i> completed	EXTERNAL <i>credits</i> completed	TOTAL <i>credits</i> completed	<i>Credits</i> with MERIT or EXCELLENCE	Failed to achieve*
English L2	13	0	13	6	9 (external)
Mathematics L2	12	0	12		12 (external)
Biology L2	12	3	15	9	6 (external)
Physical Education L2	27	0	27	7	
Accounting L1	9	0	9	4	
Economics L1	2	0	2	2	11 (external)
Core generic L1	3	0	3		
Total credits	78 (100% pass rate)	3 (7% pass rate)	81 (68% overall pass rate)	28	38

Comments on Year 12: Given his exemplary Year 11 record, it is surprising to see that he chose/was allowed to enrol in a further 25 *credits* at Level 1, including in a *standard* within the “core generic” subject that requires students to “Demonstrate knowledge required for an informed choice in purchasing household consumables”. The choice of accounting and economics was made out of interest but without any clear plan in mind. He did not receive advice about his subject choices from his teachers until the end

of Year 12 and early in Year 13. Until then he relied on advice from an older cousin and his grandmother who are very supportive and want him to do well academically but are not particularly knowledgeable about NCEA. It was not until the end of Year 12 and the beginning of Year 13 that he felt he understood the differences between *unit* and *achievement standards* (other than the fact that the latter allowed him to achieve *merit* or *excellence*) and the significance of *approved* subjects for the achievement of UE. He attempted 119 *credits* across seven subjects and achieved an overall pass rate of 68 percent. Although he managed to achieve 28 *credits* with *merit* or *excellence*, he also failed to achieve 38 externally assessed *credits*, because he either did not attempt to complete them or was absent from the examination. Nevertheless, he met the requirements for the award of NCEA Level 2.

Year 13

SUBJECT	INTERNAL <i>credits</i>	EXTERNAL <i>credits</i>	TOTAL <i>credits</i> completed	<i>Credits</i> with MERIT or EXCELLENCE	Failed to achieve*
English L3	12	Nil	12		9 (external)
Mathematics L3	14	3	17		4 (external)
Biology L3 (including 4 <i>credits</i> in science)	10	4	14		4 (external)
Social Studies L3	4	Nil	4		10 (external)
Total credits**	40 (100% pass rate)	7 (21% pass rate)	47 (64 % overall pass rate)		27

Comments on Year 13: He continued with English, mathematics and biology and took social studies on the advice of a teacher who suggested that he would be better to take a subject from the *approved list* rather than taking tourism or materials technology, which he had intended to take. (He was also interested in accounting but did not have the necessary prerequisites, and in physical education but was unable to take it because of timetable clashes.) All four subjects he took are on the *approved list*, although he attempted only 74 NCEA *credits*. On the advice of another teacher he enrolled in the Young Enterprise Scheme (YES), an experientially-based, non-NCEA course. His plans to go on to university study emerged at the beginning of the year and were firmed up by the middle of the year, under the influence of a teacher, a school career counsellor, and a university student mentor. At the time of the research interview (in October) he was still not sure what he wanted to study at university (mentioning at least two possible areas of study) or to which university he would apply. He completed the year with 47 NCEA *credits*, only just meeting the requirements for UE. With the *credits* from the YES course he also met the requirements (but only just) for the award of NCEA Level 3. The need to improve his skills in taking external examinations does not appear to have been addressed and he passed only seven of the 34 externally assessed *credits* for which he had enrolled.

This student showed strong potential but has not received the kind of guidance and support that would have helped him to complete secondary school with a stronger academic record. His achievements at Level 3 would make it difficult for him to enroll in his preferred areas of study and he would be at a disadvantage competing for a place in other limited-entry programmes.

* "Failed to achieve" includes only those *standards* for which the NZQA Record of Achievement shows that the student had not attempted the assessment, was absent from external examination, or had failed to reach a passing grade. Withdrawals from subjects or individual *standards* are not included.

** "Total *credits*" relates to *credits* achieved in NCEA subjects (and does not include *credits* earned through the Young Enterprise Scheme which are external to NCEA).

EXEMPLAR CASE 2

This student presented as an able and articulate young man. He spoke of being motivated to study and of enjoying encouraging his fellow students to make the most of their time in school. He enjoyed sport and was seen as a leader among his peers. He hoped to study commerce at the University of Auckland. His parents attended parent-teacher interviews and supported him in doing well at school and in his ambition to attend university.

Year 11

SUBJECT	INTERNAL credits	EXTERNAL credits	TOTAL credits completed	Credits with MERIT or EXCELLENCE	Failed to achieve*
English L1	19	7	26	13	3 (external)
Mathematics L1	17	3	20	0	13 (external)
Science L1 (including 2 credits in chemistry and 2 credits in biology)	8	15	23	4	0
Social Studies L2	8	5	13	8	5 (external)
Hospitality L1 (including 6 L 1 credits in Home and Life Sciences)	33	0	33	0	0
Total credits	85 (100% pass rate)	30 (59% pass rate)	115 (88% pass rate)	25	21 (external)

Comments on Year 11: He was enrolled in five subjects in his first year of NCEA, including Level 2 social studies. His early choices were guided by personal interest, without a clear plan for what he wanted to do in the future. He achieved 30 credits through external assessments and 115 credits overall to complete (and exceed) the requirements for the award of NCEA Level 1. While he achieved *merit* or *excellence* in 25 credits, he also failed to achieve 21 externally assessed credits, primarily in mathematics. His record suggests that he is an able student but needing support to improve his performance in external assessments.

Year 12

SUBJECT	INTERNAL credits completed	EXTERNAL credits completed	TOTAL credits completed	Credits with MERIT or EXCELLENCE	Failed to achieve*
English L2	19	3	22	0	6 (external)
Mathematics L2	12	0	12	5	12 (external)
Social studies L3	10	0	10	0	10 (external)
Service Sector L1/ L2 and L3	12	0	12	0	0
Hospitality L2 and L3	17	0	17	0	0
Physical Education L2	21	0	21	0	0
Total credits	91 (100% pass rate)	3 (10% pass rate)	94 (80% pass rate)	5	28 (external)

Comments on Year 12: This was a critical year for this student in which he was allowed free choice of subjects. He took Level 3 social studies, which indicates a recognition of his ability and potential, and he performed well in English. But he was also allowed to take almost a third of all credits in hospitality and

service sector subjects and a further 21 credits in physical education, none of which was particularly relevant to his eventual plans to study commerce at university. He again failed in the majority of externally assessed standards. On reflection, he commented that he chose hospitality and related subjects because of a general interest in tourism and hospitality industry, but without awareness that the content of these courses would not be particularly helpful in developing his academic skills or preparing him for degree-level study.

Year 13

SUBJECT	INTERNAL <i>credits</i> completed	EXTERNAL <i>credits</i> completed	TOTAL <i>credits</i> completed	<i>Credits with</i> MERIT or EXCELLENCE	Failed to achieve*
English L3	18	3	21	4	6 (external)
Mathematics L3	14	0	14	3	7 (external)
History L3	9	0	9	9	15 (external)
Social Studies L3	0	0	0	0	10 (external)
Total credits**	41 (100% pass rate)	3 (7% pass rate)	44 (57% pass rate)	16	38 (external)

Comments on Year 13: Having clarified his intentions to go to university to study commerce, he was advised to take subjects from the *approved subject list*. He continued with English, mathematics and social studies and picked up history. He also enrolled in the Young Enterprise Scheme (YES), a non-NCEA, experientially based course, rather than statistics, economics, or another suitable subject. He completed the year with just enough credits to gain the UE qualification (counting Level 3 credits gained in Year 12) and, with inclusion of YES credits, enough credits to gain the Level 3 Certificate. Although he gained 16 credits with *merit* or *excellence*, he failed to gain any credits in social studies and failed all but three externally assessed standards. (In fact he only attempted half of the external exams, and commented that he did not like exams and found school increasingly stressful.)

This student's achievements at Level 3 would make it unlikely that he would be accepted for the BCom degree he was hoping to study and very difficult for him to succeed. He needed better guidance when choosing subjects for Year 12. Economics and accounting would have been more appropriate choices than hospitality, service sector and physical education, allowing him to continue with these subjects in Year 13 as well as completing at least some standards in statistics.

* "Failed to achieve" includes only those *standards* for which the NZQA Record of Achievement shows that the student had not attempted the assessment, was absent from external examination, or had failed to reach a passing grade. Withdrawals from subjects or individual *standards* and missing values are not included.

** "Total *credits*" relates to *credits* achieved in NCEA subjects (and does not include *credits* earned through the Young Enterprise Scheme which are external to NCEA).

6.3 NCEA course choices in the context of parental and student aspirations

Making appropriate NCEA course choices (and being able to follow through with those choices) matters if students have personal aspirations to follow a particular educational pathway, or if they are expected to meet their parents' educational and career aspirations for them. We therefore asked both students and their parents about the value they placed on educational achievement, and what hopes and aspirations they had for their (or their children's) futures. Our findings indicate that most parents, in particular Māori and Pacific parents, had high aspirations for their children and hoped to see them complete secondary school and attain qualifications leading to a professional career or a well paid and secure job. This often involved a hope that their children will attend university and complete a degree, and be able to use their educational qualifications to achieve social mobility, economic security, and a satisfying life:

My father thought education is everything, that we achieve as much as we can, the highest thing he ever saw us doing... For myself, I want my children to go to university. That's my challenge for them, to get higher education. (New Zealand-born Māori mother of Year 10 student)

Parents wanted to see their children rise above their own social and economic status and find jobs that would reflect well on the family and the community from which they came. Perhaps because of their own limited economic resources, parents invariably looked to educational achievement as the only pathway to social mobility:

In order to succeed, I hate to say it, I really believe that you have to be educated... And in order to climb that social ladder or get out of the hole that you're in, or whatever, you have to be educated... (New Zealand-born Māori mother of Year 13 student)

Although the parents might have limited education themselves, it did not mean that they did not understand the value of education for their children. In fact, missed opportunities in their own childhood gave some parents a strong incentive to ensure that their children made the most of the opportunities education offered them, so they could rise out of poverty and find their own place in "today's society". Ethnicity was important in how these parents saw the challenges for their children, both in terms of what they could pass on to them, and in what they thought would earn their children a well paid job and higher status:

I didn't want my daughters to have to struggle the same way I have... So education to me and the father of the children is very, very important, because we realise how important education is in today's society as well as for the future. In our time, a... diploma was important. Nowadays it's a degree... or more these days, which determines how much your income is.... So we were looking at the future as far as our children was concerned, and yes it is very vital, and being a Māori it is even more important. (New Zealand-born Māori mother of Year 12 student)

Only a few of the parents we interviewed talked of education as relatively unimportant in their children's lives. Such parents tended to express a hope that their children would be happy and find their way in life regardless of how well they did at school.

Overwhelmingly, parents talked of the high value they placed on education for their children, and the hope that their lives would be easier and more prosperous as a result:

I say to him "that's the benefit of going to uni[versity], getting yourself a degree and all that... If you have that in the back pocket you'll be fine. You can do anything, you can go anywhere. (Overseas-born Cook Island Māori mother of Year 13 student)

Pacific parents talked of their reasons for migrating to New Zealand in aspirational terms – hoping for a better life for themselves and their children than would have been possible in their home islands – and of their children's education as a means of realising their hopes. Their aspirations were not only for material prosperity but also for higher status and positions of respect and honour within their extended families and the wider community. Some of the Māori and Pacific parents wanted their children to go a step further and become leaders and role models; to show what was possible to achieve through education, so that more young people in their community would follow in their footsteps:

And the important thing is, is the role that [daughter] holds. If she does well, the others will follow. (Overseas-born Tongan father of Year 11 student)

What I expect is for her to be an example, especially for Māori females who are at school... I also expect her to have high academic marks because I know she has the potential. (New Zealand-born Māori mother of Year 12 student)

The European/Pākehā parents and students tended to speak of educational aspirations in individual terms. These parents were more likely to comment on their children's individual interests, abilities and goals. Their success or otherwise was seen as affecting the individual child but not necessarily anyone else in the family or beyond.

All students whose parents hoped to see them go on to tertiary education, including Māori and Pacific students, were aware of their parents' aspirations and the values they were expected to adopt. Even though we recruited students with different ethnic identifications and with different levels of academic ability, 78 percent of the students in the study indicated that they planned to complete the UE qualification, thus sharing their parents' aspirations, at least in terms of high school qualifications. Many of the Māori and Pacific students were also acutely aware of the realities of their parents' lives: their lack of educational qualifications and lack of opportunities for them to move out of low-

paid, manual work, with their aspirations therefore resting with their children to succeed where they could not:

My parents... have high expectations... they really want us to... try hard and become better people... They don't want us to become like them... working in factories and stuff... They want us to have better schooling here in New Zealand, not like how they were brought up in the islands. (New Zealand-born Cook Island Māori Year 13 male student)

Further pressure for the students to succeed came from expectations that they would be the trail blazers, the first in their family to attain higher education, or even just finish high school. Their achievements, in the form of framed certificates, were proudly displayed on the walls of living rooms, to be admired and commented on by visitors, thus placing added expectations on the students:

No one in our family's made it to uni[versity]. No one's graduated high school... There's a lot of pressure 'cause it's all depending on us... Sometimes I feel stressed 'cause... they always look at us and depend on us that we will make it. (New Zealand-born Tongan Year 12 female student)

Parental aspirations placed heavy expectations on their children, some of whom felt that they could not live up to them. In some cases they had different aspirations for their own futures but, more often, these students lacked the strategies needed to succeed at school and therefore felt anxious about fulfilling the expectation for higher education. For other students parental expectations provided the motivation and focus they needed to do well academically:

I think it's because my mum didn't really have an education of her own, so she's pushing me to get mine. So, I'm thankful for that, because I wouldn't probably be where I am if it wasn't for my family. (New Zealand-born Samoan Year 12 female student)

What was missing from the data obtained from parents and many of the students was any mention of specific strategies for navigating the educational pathways in order to meet the goals of NCEA qualifications and access to, and success in, university education. Instead, their hopes and expectations were couched in very general terms, indicating a limited ability to support their children with specific, targeted strategies to ensure success.

It was evident that most parents lacked specific knowledge of the NCEA system and the risks of their children taking wrong turns, failing at critical points, or having their progress blocked along the way. Many, particularly Pacific parents, assumed that it was enough for their children to be attending school, doing their homework, and staying through to the end of Year 13. They did not appreciate the significance of subject and *standard* choices – whether made by the student or the school – or the specific combinations of subjects and *credits* needed to achieve NCEA qualifications and

prepare adequately for university in a particular field of study. They also did not appreciate that accumulation of *credits* alone was not sufficient, and that students could be diligent and do well in their secondary education but not necessarily achieve either the minimum qualifications or the educational grounding needed to cope with the demands of degree level education.

Pacific parents in particular tended to talk about the importance of “good education” and of their children studying hard and “passing well”. This often meant that parents tried to control their children’s social activities and discouraged them from watching television but could not offer more specific support to ensure that they were on track with their studies. As one of the students said:

In my family education is seen as working hard at school, no boys and stuff, and getting to uni[versity] and get a degree. (New Zealand-born Tongan Year 11 female student)

Even when they knew that their children were struggling with their studies, many parents were not necessarily in a position to offer them specific help, either by being able to help them with understanding particular subjects such as science or academic skills such as essay writing, or by being able to pay someone else who could provide such help. The best the parents in this situation could do was to rely on help older siblings or members of the extended family could provide. Some parents also encouraged their children to make the most of the school-run “homework centres”, an after school activity supervised by teachers where students could ask for help and have access to resources they needed to complete their homework.

This contrasted sharply with the approach of a small number of European/Pākehā parents, some of whom had tertiary education and greater financial resources at their disposal. They were not only in a better position to provide direct help to their children but also took action to remedy any failures or difficulties their children encountered, ensuring that they stayed on track in terms of their educational goals:

In year nine she had a maths tutor come to the house, because she wasn't that great at maths... we got a tutor to come to the house every week. Now she has no problems. She is in the... [gifted and talented class] in maths... Her confidence came up, that she could do better than what she thought she could. So that's where she [decided to] aim for a career rather than a job. (New Zealand-born European/Pākehā mother of Year 11 student)

What was evident from the data is that many parents and students have high educational aspirations, but having their aspirations realised is fraught with difficulties. Lack of material and social capital to succeed in the New Zealand education system is part of the picture, but limitations in their ability to navigate successfully through the complexities of the NCEA system is an added problem.

7. DISCUSSION AND CONCLUSIONS

Major changes in education, such as the 2002 introduction of NCEA as the national framework for educational qualifications for secondary schooling, take time to bed down, and to show their impact. Of particular focus must be the impact on those most disadvantaged. In the context of New Zealand secondary education this includes Māori and Pacific students and students from low-decile schools among whom Māori and Pacific students are overrepresented. Although NCEA has had a positive impact on student outcomes overall, the gap between Māori and Pacific students and European/Pākehā students in relation to the UE standard or higher qualifications has not narrowed between 1993 and 2007 (Ministry of Education, 2008). Although more Māori and Pacific students are completing NCEA Level 1 and Level 2 qualifications, the numbers completing UE requirements and/or NCEA Level 3 qualifications are still worryingly low (18 percent and 20 percent respectively, compared to 44 percent of European/Pākehā and 66 percent of Asian students (Ministry of Education, 2008)). Failure by many academically-able Māori and Pacific students to achieve the UE qualification and adequate grounding in relevant subjects at secondary school level acts as a major barrier to these school leavers going on to degree-level studies at universities or other tertiary institutions.

The delivery of secondary school education to meet the learning needs and aspirations of a socially, culturally and individually diverse student body is complex and challenging. Many factors impact on the quality and effectiveness of student learning, including the ability, motivation, application, and perseverance of individual students, their home situation, as well as factors such as teaching and assessment approaches, teachers' qualifications, skills, and quality of experience they bring to the classroom, the nature and timing of feedback they provide, the expectations they have of their students and the physical, social, and learning environment schools are able to provide their students and staff. No single factor can explain why some groups of students succeed while others with similar academic abilities do not reach the same level of academic achievement. This point notwithstanding, it is possible to examine the effects that specific factors have on educational outcomes, and the nature of their impact on particular categories of students. The aim of this study was to focus specifically on how students, parents and teachers make, and understand NCEA course choices, and how such choices impact on educational pathways that secondary schools and the NCEA system make available to students in mid and low-decile schools.

If, as has been reported previously, Māori, Pacific and students from low-decile schools are ending up with subject and *standard* choices that lead away from the “academic” pathway, how does this happen? What understandings do the key stakeholders – students, parents, and teachers – have of the NCEA system, and of the factors that contribute to choices and pathways that can lead even academically-able students away from university education?

7.1 Understanding the system

The complexity of the NCEA system makes it possible to meet the needs of a diverse student body; but it also makes it difficult for different stakeholders to fully grasp all that they need to know about the implications of particular course choices, whether these are made by schools, individual teachers, students, or parents. The flexibility of the system, which supports more students to succeed in different combinations of subjects and at different qualification levels, can also act as a critical barrier. The NCEA system allows students to choose from a much wider range of subjects than had been the case previously. This broader choice of subjects has provided some students, who might otherwise have left school without any qualifications, the incentive to stay at school. The NCEA system allows students to keep *credits* gained in one year and to add to them in subsequent years to gain qualifications. It also allows students to gain *credits* through internal assessments during the school year as well as from end-of-the-year external examinations. Our study shows that teachers, students and parents saw these aspects of the NCEA system as positive, especially in meeting the needs of students with different interests and different levels of academic ability. But navigating the complexities of the NCEA system and its application within individual schools can be difficult and might not always lead to the goals students and their parents aspire to reach. If a particular outcome is to be assured, it requires that even minor decisions be considered in terms of all their possible academic repercussions.

We found that parents in particular lacked confidence in their understanding of the NCEA system. They understood some of its basic characteristics, such as the three levels of certificates and the accumulation of *credits* through internal assessments and external examinations. But they were also aware that there is a lot more to the NCEA system and how it is implemented in schools, and that much of it was a mystery to them. Instead of feeling that they were able to guide their children through decisions related to their schooling, many parents found themselves needing to have NCEA information deciphered, either by teachers or their own children.

Helping a child to make course choices for the following year can take hours of reading through lengthy curriculum or course guides, and consideration not only of the suitable subjects but also their prerequisites, the content covered by a number of available *standards* for each subject, the assessment requirements for each *standard* and their associated *credit* values, and the links to the same or related subjects at subsequent levels. This is difficult to do when parents are not given all the relevant information, or when they are unable to understand fully the information provided.

We found that students tended to be “street smart” in their knowledge of NCEA. In other words, they knew how to maximise returns for the effort they put into their school work, but were not necessarily wise enough to appreciate the impact of particular choices on their long-term future, or the costs of cutting off educational options too early. Students knew enough to be able to pick subjects that would give them more *credits* for less effort, to be able to avoid external examinations by gaining *credits* internally during the year, and to know when they had fulfilled the minimum requirements for a qualification without striving to do more or to test their abilities to their full potential. While teachers were generally very positive about NCEA, many of them noted that it encouraged what teachers perceived as students’ preoccupation with accumulating *credits*. They were concerned when students opted out of further study and assessments (including external examinations) once they had achieved the minimum number of *credits* required for a pass.

Students were also aware that their course choices were subject to school-imposed rules and constraints, including prerequisite requirements, subject (and teacher) availability, and timetabling. Even though it has to be accepted that schools work within externally imposed frameworks and often with limited resources, it was of concern to see how easily some students (particularly Māori and Pacific students) were “talked into” or allowed to take subjects in which they were not interested, or which did not provide the strongest possible foundation for tertiary study in the field of their choice. Knowing how the NCEA system works is a necessary but not a sufficient condition for students being able to enrol in subjects of their choice or in subjects that would provide the best preparation for future study.

The availability of “vocational” subjects, and practically-focused versions of core subjects such as mathematics, science, and English, makes it very easy for students to take, to be allowed to take, or to be encouraged or directed to take, the non-academic pathway within the NCEA framework, even while appearing to be following an

“academic” pathway. Although this might be very suitable for students with limited academic ability, or those who are interested in work that does not require formal qualifications or have no desire to pursue further education, it can create major barriers for students with different potential and aspirations. Evidence from earlier Starpath research indicates strongly that students not taking vocational subjects (focusing instead on more traditional academic subjects) are much more likely to achieve the UE qualification, and therefore be able to apply for admission to university or other degree-granting tertiary education providers (Shulruf, Tolley & Tumen, 2005). In this study, we have found evidence of course choices that confirm this earlier finding. As shown in the exemplar cases earlier in the report (and many other cases we analysed), students with ability and potential who, for whatever reason, are diverted into non-academic subjects can jeopardise their chances of achieving the UE qualification and achieving in NCEA at a level that would make them competitive with other students applying for enrolment in limited-entry university programmes, or being able to study in a course of their choice.

Although the more practically-focused, vocational or experientially-based subjects (such as hospitality or sport & recreation) provide options and pathways for students who are not likely to wish to pursue further education, and can also serve as an optional extra subject or two for other students, they also need to be clearly identified as not providing the most appropriate choice for those aiming to achieve the UE qualification, nor the necessary preparation for degree-level study. It is not that these subjects are not useful or challenging. It is that they take time that a student aiming to study at university might otherwise have spent on subjects such as advanced mathematics or physics, or other ‘approved’ subjects that are essential for enrolment in degree-level studies. The current lack of clarity on the part of parents and some students is not helped by the official reluctance to clearly identify subjects and their content in terms of categories. Teachers in our study referred to ‘academic’, ‘university’, ‘traditional’, and ‘*approved*’ versus ‘non-academic’, ‘vocational’, ‘practical’, ‘non-traditional’, ‘alternative’, and ‘applied’ subjects, as well as ‘01’, ‘02’, ‘03’, ‘gat’ (gifted and talented), ‘accelerated’, ‘mixed’, ‘*achievement standards* only’, and ‘*unit standards* only’ versions of core curriculum subjects, while also suggesting that such labels were not officially sanctioned.

Hipkins et al. (2004) identified three categories of core subjects (English, mathematics and science) as ‘traditional-discipline’, ‘locally redesigned’, and ‘contextually-focused’ courses (discussed earlier in the report). These labels are helpful but we did not encounter them in the school settings. Although developed in response to student

needs, and making the most of the flexibility available within the NCEA system to adjust content and assessment strategies to the local conditions, these different versions of subjects (and the confusing terminology surrounding them) add to the complexity of secondary education pathways. They also make it very difficult for parents and many students to make informed subject choices and to feel confident that each subject is contributing to students' progress toward university education, if this is their aim. The terminology surrounding NCEA subjects needs to be made much clearer and more transparent.

Our findings indicate that there is a lack of comprehensive understanding of the NCEA system, particularly by parents, but also by many students. What is often missing is an appreciation of the potential pitfalls within the system and the potential for even able and diligent students to find themselves on the wrong pathway, failing to achieve a necessary or intended qualification. Students can remain at school through to the end of Year 13, yet be allowed to drift in and out of different subjects, have their pathways blocked by inadequately understood rules or practices, or be "redirected" into less academic subjects for non-academic reasons.

The full potential of the NCEA system is realised when students are able to make fully informed decisions, with advice and support from adults who know them and their academic potential, and when schools are able to act on such decisions. But, as one of the teachers in the study commented, "NCEA is still a work in progress", both in terms of its design and how it is implemented within individual schools. One of the critical areas that deserve continuing attention and more focused effort is making the information about the NCEA system better and more widely understood by students, parents, and the wider community. This needs to go beyond making the information available through websites and printed media, towards making the NCEA system and the implications of subject choices and their timing comprehensible to all stakeholders. Parents in particular need to feel more engaged and empowered, including those who have experienced a different education system, who lack higher education qualifications, who do not speak English as their first language, or who do not feel able to advocate for their children within the New Zealand school system. Close alignment of students', parents' and teachers'/school's views on subject choice is important if all are to work toward the achievement of shared goals and if academically able students are to remain firmly on education pathways that will lead to the fulfillment of their aims and aspirations. In this context, a system that fails to adequately engage parents in guiding and supporting their children's study and exploration and development of educational goals is unlikely to deliver the best possible outcomes. Conversely, when

parents, students and schools are able to work together, with clear understandings of each others' intentions, abilities and commitments, the outcomes can be very positive.

Just as importantly, some aspects of the NCEA system need to be simplified, with fewer possible detours and blind alleys. Although it is beyond the scope of this study to recommend how the streamlining should occur, it is clear from our findings that freedom of choice without adequate guidance and support is counterproductive, preventing rather than facilitating progression to tertiary education for many, particularly Māori and Pacific students and those from low income backgrounds. Students with the ability and desire to engage in degree-level education should be supported and guided in ways that enable them to achieve their aspirations. Guidelines provided to students and parents need to be explicit about which subject choices will facilitate progression toward degree-level study in health or physical sciences, in humanities and social sciences, in commerce and business, and just as importantly, which subject choices will block access to these qualifications .

7.2 Choosing NCEA subjects

The process of students choosing their subject options for the following year absorbs a great deal of school resources, but the notion that all students are the authors of their choices, and that their choices are fully informed, is misleading, particularly in relation to some students and some subjects. Students who show early signs of academic ability, who choose to follow an academic path, and whose parents are actively supportive of their choices, are more likely to be encouraged into academic subjects of their choice – provided all are available within the school they attend. Even then, schools differ in how early and how much attention they pay to individual students' academic potential and aspirations. When students with academic potential are not identified until the end of Year 12 (as was the case with some students we interviewed), they can come to their final year of secondary education with *credits* from a wide mix of subjects and a lot of potential, but without adequate grounding in the core academic subjects or without sufficiently developed skills such as exam taking. The outcome is often one of disappointment for the students, and the school, when students fail to achieve the UE qualification and/or the NCEA Level 3 Certificate, or manage to get through with the bare minimum of *credits*, as was the case with the two students presented as exemplars earlier in the report.

Most commonly, the initial choice of NCEA subjects is made by parents, or more frequently by students in discussion with parents or with teachers. There is also a pattern of students, including those in junior years, making their own choices without adult advice or support. Such students are at greater risk of making inappropriate choices and closing off their options early. Although Māori and Pacific students with a strong record of achievement in the first year of NCEA (Year 11) provide clear evidence of their academic ability, they are often less likely than other students to have clear goals beyond “doing well” at school, are less likely to seek academic advice early, and are more likely to delay making decisions about university education until their final year at school. If they are to leave school with a stronger academic record, such students need to be challenged early on to set specific goals in relation to further education. Just as importantly, they need to have ongoing conversations with adult mentors (ideally teachers and parents working together) who can not only encourage them to remain focused on their goals, but can also help them to develop strategies, skills and the confidence to achieve specific targets. (This needs to include examination skills, and achievement of *merit* and *excellence* grades.)

Subject choice is only the initial step and plays an important but not necessarily a determining role in the content of a student’s programme of study over the course of each of the three NCEA years. Schools play a critical role in shaping opportunities for their students through the way they respond to their community and environment. They make judgements about the academic abilities and interests of their student body (the school “demographic”), and decide what mix of subjects would best meet the needs of their students. All students attending a particular school have to be provided with learning activities during each teaching period of each school day. But whether none, 10 percent, 50 percent, or 80 percent of the students are given the option of studying Level 2 “chemistry” or Level 3 “hospitality” will depend on the choices the school makes. In many cases students may not have the option of studying Level 3 physics, chemistry, calculus, history, geography or other similar “academic” subjects. This might be because their school is not teaching one or more of these subjects (sometimes because it cannot attract or retain teachers qualified to teach them, or because it cannot afford to teach a subject to a very small number of students), or because these subjects are offered only to a limited number of “top” students. When the limited number of spaces in the top class is taken, other interested students are redirected into other subjects (e.g. tourism instead of geography, or social studies instead of history). Thus some important academic subjects are simply not available to (any, or many) students in some schools.

Similarly, the prevailing ethos of the school is important in determining whether the traditional academic subjects are open to most or only small numbers of students, or whether the more practical or vocational subjects are a default option intended to be taken up by the majority of students. When a student wanting to study “history” is redirected into “sport & recreation” as the only available option, despite her dislike for sport and preference for a more academic subject (discussed in the Findings section), it indicates that factors other than student choice are playing the determining role. Allowing students to enrol in subjects of their choice, even when they lack the essential prerequisites, is an option, but not necessarily a helpful one, as we found that students who took new subjects for the first time in their final year of secondary school usually did poorly in these subjects and risked not gaining enough *credits* in the appropriate combination of subjects for the award of the UE qualification.

In the schools involved in our study, students and their parents do not have any choice over what *standards* are selected as the subunits for individual subjects, nor the consequent assessment methods (internal or external) or opportunities to attain *merit* or *excellence* grades (in place of basic *achievement*). This is not new or unique to the NCEA system, although different grading systems for differently constructed subjects (*unit vs achievement standards*) is a less common feature of other systems, and a further source of confusion. In schools where more than a “minimum” number of 24 *credits* is offered in some subjects, students can exercise some choice in the content of their subjects. The norm of students taking five or six subjects per year, each worth 24 *credits*, is not observed in all schools. In some, the inbuilt flexibility of the NCEA system allows for subjects to be offered with no more than 14 *credits* (or less). This arrangement might suit students aiming to complete a Certificate within the NCEA system (where the mix of *credits* is less important), but for students working toward the UE qualification and university entry it not only limits their choice; it also risks students who fail even a single *credit* not being able to meet the UE requirements of at least 14 *credits* in at least two subjects from the *approved list*.

It should be noted here that NCEA does not specify how many *standards* or *credits* should be available within each subject. The NCEA Certificates at Levels 1 – 3 are based on a total number of *credits* at specified levels but, with the exception of eight literacy and eight numeracy *credits* at Level 1, do not require a minimum number of *credits* in any other subject. It is only the UE qualification that requires a minimum of 14 numeracy *credits* at Level 1 or higher, a minimum of eight literacy *credits* (four in reading and four in writing) at Level 2 or higher, a minimum of 14 *credits* in each of at

least two Level 3 (or higher) subjects from the *approved list*, and a further 14 *credits* from one or two additional *domains* or *approved* subjects.

Universities, on the other hand, set their own additional requirements and expectations, as is the case with the University of Auckland which ranks students on the basis of their performance in up to 24 *credits* in each of a maximum of five Level 3 subjects from the *approved list*, taking the best 80 *credits* into the calculation. (Applicants' rank scores are calculated on the basis that each *credit* awarded as *achievement* is given two points; each *credit* awarded with *merit* three points, and each *credit* awarded with *excellence* four points.) Schools are not necessarily aware (or aware early enough) of such requirements or practices, and are therefore not able to provide adequate advice to their students in relation to what are the most appropriate subject choices. It is evident that there can be a significant disconnection between what schools are offering in order to allow students to complete NCEA Level 1 – 3 Certificates, what students have to deliberately choose to meet the UE qualification requirements, and what universities might expect students to have completed in preparation for undergraduate study. Once more, the ethos of the school is likely to determine how much emphasis the school places on students achieving NCEA Certificates, and what expectations it has for its students completing the UE qualification and (in addition) obtaining the best possible grounding for degree-level studies.

Students' and parents' choices are also moderated by the practical considerations schools have to take into account in order to organise their teaching, group students, and coordinate their many curricular and extracurricular activities. Particularly in smaller schools, with a more limited number of subjects, timetabling decisions can lead to clashes that prevent some students from completing subjects of their choice or subjects that are important to their plans for further study. Being forced to take subjects that lie outside of their interests and are not related to their future plans can be a demotivating factor for students, leading to poorer performance.

Streaming students according to their abilities is not new to secondary education, but the provision of different versions of subjects to different streams of students is a feature of the NCEA system which allows students to study quite different content within the same subject and level. This can further restrict student choice, especially as it is an aspect of NCEA's implementation that parents do not understand and are therefore unlikely to challenge. Early streaming into "applied" or "practical" versions of core subjects, without systematic and regular reviews of student performance, motivation, and aspirations can lock students out of the academic pathway by

preventing them from completing the prerequisite *standards* needed for more advanced study. Streaming for behavioural reasons can have similarly negative consequences.

On the other hand, schools can and do play a very positive role in relation to subject choices. As many of the teachers recognised, students are often too young and unsure of their post-school plans to make best possible decisions. Just as importantly, many students, particularly those from families without a history of higher education, might not be aware of the many career options available to them or the educational pathways that would take them to a career of their choice. Career guidance teachers or counsellors clearly play a major part in helping students become better informed. Ensuring the students are choosing and enrolling in the most appropriate subjects, however, is more difficult.

A positive development in one of the schools was the recent introduction of individual student target setting and academic counselling, involving not only students and parents, but also students' subject and form teachers, and deans. The aim of challenging each student to improve his or her performance and to stay on track in terms of *credit* gains received a strong endorsement from the study participants who had experienced the new intervention. The notion of tracking students longitudinally over their secondary school career and using data to inform academic counselling and student subject choices deserves fuller consideration.

Overall, the NCEA system was seen as a positive development and as having many more positive than negative features. The point of this report is not to offer a critique of the NCEA system. Rather, it is to point to aspects of the system that require further attention so that the system as a whole can be improved, and more pertinently, so that Māori, Pacific and other students in low-decile schools (and their parents) can be assisted to navigate the NCEA options and pathways in a way that allows their full academic potential to be realised.

7.3 Choices and aspirations

Our findings reflect the fact that most parents, including Māori and Pacific parents, have high aspirations for their children. At least to the extent that the majority of students in our study aimed to stay at school until Year 13 and complete the UE qualification, they shared their parents' aspirations. Many parents, particularly first

generation immigrants from the Pacific Islands, have direct experience of casual and insecure employment and minimum-wage jobs that are physically exhausting and bring limited rewards. They want their children to rise out of their current situation and have better lives, and they see education as the only means to make that possible. Importantly, their aspirations are not only for economic prosperity and a “better life” for their children; many also see education as a means of improving their and their children’s social standing in the community and of their children becoming leaders and role models for others.

The evidence from our study indicates that when such hopes and aspirations are couched in general terms, and are not accompanied by specific strategies for achieving the UE qualification and gaining the expected grounding in specific subjects to be able to cope with university studies, the chances of failure are high. The assumption by Pacific parents in particular that their children would “get there” if they attended school, did their homework, behaved in class, and stayed at school until the end of Year 13 is well intentioned but (our evidence suggests) not sufficient to translate aspirations into hoped-for outcomes.

A conclusion to be drawn from our study is that aspirations need to be matched by specific strategies and skills if students are to navigate successfully through the complex maze of the NCEA system and the practical barriers and diversions that are an inevitable part of how schools implement the NCEA system and how they organise their activities. Students with strong social capital – parents and older siblings with university education, peer networks with similar aspirations, access to literature and information technology for broader educational and not just entertainment purposes – seemed able to navigate the NCEA system to meet their needs. The process was much more difficult for students who lack such capital, even though they have many other strengths and a potential to succeed in university studies.

Equally, the NCEA system needs to be more straightforward, transparent and easier to navigate. The pathways it offers to students with different levels of ability and different interests need to be made clearer and the signposts and warning signals for potentially inappropriate choices need to be visible and timely. If students from the currently under-represented groups are to be qualified and able to enter degree-level education in significantly greater numbers then the *status quo* must change. This means that both NZQA and schools need to continue to work on making the NCEA system in its interface with its most important clients more transparent and more comprehensible. At the same time, schools need to work more closely with students and their families to

ensure that their aspirations are recognised early, and supported in a way that leads to the best possible subject choices and the best possible learning outcomes.

7.4 Implications

The findings of this study have implications for all stakeholders involved with the NCEA system, including NZQA and the Ministry of Education, schools and teachers, and parents and students. The system needs to be more “user friendly”, more clearly understood, and more effectively used, if it is to contribute to better educational outcomes for Māori, Pacific and other students from low-decile schools.

7.4.1 The complexity of the NCEA system, as experienced by those most affected by it, has both strengths and weaknesses. On the one hand, it provides a wide range of subject options to schools and students (including within-subject variations in content and assessment). On the other hand, it is a source of serious concern to parents who are unable to comprehend its many facets and who therefore feel excluded from the dialogue they should be having with their children and with their children’s teachers. While the overall support for NCEA by teachers, parents and students indicates that the system is meeting the needs of students with varying abilities and interests, it is nevertheless allowing some academically able students to be diverted from education pathways that would lead them to degree-level study. It is also making it difficult for parents to be actively and strategically involved in critical decisions about their children’s schooling. This suggests that serious consideration should be given to streamlining some aspects of the system.

For the parents, and at least some students, the problem is not access to information about NCEA, but understanding it and how it works in practice, and being able to personalise it to their own situation and plans for the future. There is therefore a need for clearer and culturally contextualised information tools, including in languages other than English, that not only provide basic information about the NCEA system generally but can also serve as comprehensible and useful guidelines for individual parents and students in identifying the most appropriate pathways that match their goals and aspirations. In this context, there is a need for greater transparency in distinguishing between different types of subjects (e.g. “academic” or “vocational”) and their intended uses, and for clearer identification of subjects that students intending to go on to university studies should not take, or should take in addition to, rather than in place of, essential academic subjects.

7.4.2 There is currently a gap in the resourcing of schools in relation to provision of quality academic counselling and subject/course advice to students and their parents.

It is not enough to make a wide range of options available to schools and students without also providing the resources needed to monitor students' performance, achievements, and subject choices longitudinally. Data from such monitoring should be an essential element in regular and ongoing academic counselling and dialogue with students and parents, which should engage students in their schooling by helping them to set and achieve academic targets that match their abilities and potential. Schools working on innovative programmes of academic counselling and target setting that are producing improved outcomes for their students should be recognised and encouraged (and resourced to make such programmes sustainable). Schools that currently struggle to provide adequate academic counselling and guidance to their students and parents need to be resourced and helped to improve their practices. Lack of adequate guidance and academic counselling early in their NCEA career, and at regular intervals subsequently, is disadvantaging academically able Māori, Pacific and other students in low-decile schools who are easily diverted toward inappropriate options and pathways, rather than being challenged and helped to set and achieve high academic goals.

7.4.3 Navigating through three or more years in the NCEA system can be fraught with challenges and potential stumbling blocks for students (and their parents) who lack a detailed understanding of how the system works in practice, and who therefore rely on schools to set them on the appropriate path. There is a need for schools to provide timely and adequate academic counselling to their students and to seek to engage parents in this process. Such counselling needs to be based on longitudinal data related to each student's performance, achievement, goals and aspirations.

It is also important that schools can identify those critical points at which students with academic potential can find themselves falling behind, diverted from the academic path, making inappropriate subject choices, or not enabled to catch up or make timely corrections to their study programme. The following list includes a series of critical points that need to be addressed, perhaps by a system of "red flags" going up and requiring individual reviews to ensure that none of these individually or in combination lead to academically-able students failing to achieve their full potential:

- **Low asTTle, PAT or similar scores in Years 8 or 9:** These assessments of students' ability levels are used to stream students in Year 10 and can disadvantage students who are "late developers" or who, for whatever reason,

had not done well in such tests. Parents and students need to be aware of the implications of such tests for subsequent years, so that they can monitor what actions schools take on the basis of the information these tests provide and be in a position to discuss (and if necessary challenge) any streaming decisions that might disadvantage an individual student. There is a need for schools to ensure that such tests do not unfairly or inappropriately determine students' subsequent study options.

- **Average or below average academic performance in Year 10:** Because few students attempt any NCEA subjects in Year 10, they and their parents might not be aware of the importance of doing well during this year. Year 10 results, however, are important not only in streaming students into different classes in Year 11, but also in deciding students' allocation to different versions ("academic" or "applied") of core subjects. This in turn might limit the prerequisites students are able to complete in Year 11 and therefore what subject options will be available to them in subsequent years.
- **Allocation to "applied" (*unit standards*) versions of core subjects in Year 11:** This might be done on the basis of students' academic performance in Year 10 but can also happen for other reasons, including lack of room in the "academic" version classes, late return of subject choices form, transfer from another school, needing assistance with English language (for recent immigrants), or for behavioural reasons. Completion of subjects made up solely of *unit standards* does not allow students to demonstrate *merit* or *excellence* in their assessments, does not expose them to external examinations, and is likely to prevent them from completing *standards* that are prerequisites for more advanced study in the same subjects or for related subjects.
- **Enrolment in inappropriate subjects in Years 11 and 12:** Some students are encouraged and others allowed to enrol in subjects that are inappropriate to their educational aspirations and plans. This not only fails to make the most of the learning opportunities secondary schools can offer; it also diverts students away from study in subjects that might be essential prerequisites for more advanced study.
- **Failing to attempt and complete "subject passes" in required *standards*:** Students can easily miss completing a required number of *credits* or a particular mix of *standards*, if they are not taking a longer term view. For example, students are required to complete eight numeracy *credits* for the NCEA Level 1 Certificate (all of which can come from *unit standards*), but usually need at least 12 *credits* (at least some of which must come from *achievement standards*) to be able to continue in the subject in its "academic" version, and need at least 14

numeracy *credits* at Level 1 or higher to complete the requirements for the UE qualification.

- **Failing to attempt and complete sufficient *credits* in Level 3 subjects from the *approved list*:** Students need to be encouraged to attempt and, if at all possible, complete more than the minimum number of *credits* in subjects from the *approved list*, and more than a minimum number of subjects needed for UE, in order to increase their chances of completing the UE qualification requirements, and to be able to compete for a place in limited entry programmes at university. Completing other subjects involves opportunity costs if it diverts students from attempting subjects on the *approved list* or from putting enough effort to succeed in the *approved* subjects.
- **Failing to attempt and complete *achievement standards* at all levels:** Students who begin avoiding *achievement standards* or fail some early (e.g. in Year 11), might choose to not attempt, or be guided away from attempting such *standards* in future years. This might be related to perceptions of how difficult each *standard* is or how much work it might require. It might also be related to all *unit standards* being assessed internally while many *achievement standards* are assessed externally. Whatever the reason, students can miss out on significant content and fail to meet the prerequisite requirements for more advanced study if they do not complete sufficient *achievement standards* at each level of NCEA.
- **Failing to attempt and complete external assessments:** Internal assessments, spread throughout the year, can be helpful to many students, but those on the academic path and aiming to move on to university studies need to complete a significant number of *achievement standards* that are externally assessed. The NCEA system allows students to gain *credits* in a subject without necessarily attempting or passing external examinations. This often jeopardises students' chances of completing the requirements for the UE qualification, and just as importantly, leaves them with patchy and inadequate grounding in a subject that might be critical to their university studies, and without the confidence and skills to tackle examinations in first year university courses.
- **Failing to attempt and complete sufficient *credits*:** Although attending to all the above points is likely to ensure that students also complete sufficient *credits*, some students do run the risk of coming a small number of *credits* short of the minimum required for achievement of the UE qualification (e.g. a minimum of 14 *credits* in each of two Level 3 subjects from the *approved list*), or the NCEA Level 3 Certificate (a minimum of 60 Level 3 *credits*). Attempting

more than the minimum required (and having the school offer more than the minimum number for each subject) can make a difference to students who fail even a small number of *credits*.

The NCEA system is designed to provide flexibility and a large number of subject choices to secondary school students. It provides for students with varying interests and levels of ability, and can serve as preparation for work, training, or degree-level education. It should also be possible for students to change pathways, as they discover new areas of interest and clarify their plans for the future. But in practice, as the findings of this study have shown, the inbuilt flexibility is limited by the resources available within individual schools and the specific study programmes schools design to meet the needs of their students, so that the system and its application within different schools can have both intended and unintended consequences.

7.4.4 It is evident from our study that many students do not manage to navigate their way through senior high school and the NCEA system in a way that facilitates the realisation of their and their parents' aspirations. The complexity of the system and the multiple and sometimes poorly signposted pathways students can follow, makes it likely that many students will fail to achieve their educational potential. Ensuring that such outcomes are minimised requires that schools have a systematic way of recognising "red flag" situations that place individual students at risk of failing to reach their end goal. This requires a school-wide, systematic way of monitoring, checking, and counselling students at each critical point of their NCEA journey. Timely recognition of risk and appropriate intervention should be used to ensure that students are continually clarifying and confirming their direction and end goal, and to prevent long term disadvantage to students who either through their or others' decisions run the risk of achieving less than their potential. Students (and their parents) should be actively engaged in shaping their educational pathways, but both groups need to do this on the basis of sound information and confident understanding of the NCEA system and the options and possibilities it provides.

Under the previous secondary education system students in New Zealand followed a single path – some failed before achieving the first milestone (School Certificate), while others succeeded at different points (School Certificate, Sixth Form Certificate, University Entrance, or Bursary). Under the NCEA system, students are offered a wider choice of pathways that can lead to very different areas of achievement; and can also lead to dead ends, giving students an assortment of unrelated *credits*, or insufficient grounding in subjects critical for achieving particular aspirations in tertiary

education or employment. Although it might appear that the NCEA system is driven by and open to student choice, the evidence suggests that many confounding factors are present and seriously limit student course choices. Furthermore, freedom to choose from a vast and complicated array of options should not be an end in itself. It must serve the more important end of better educational outcomes for all students. Improved outcomes for Māori, Pacific and other currently underrepresented groups in university education require that the NCEA system is made more straightforward and transparent; that students and their parents are given more helpful guidance in navigating the NCEA system; and that schools, students, and parents are engaged in actively and collaboratively shaping the pathways leading to successful completion of secondary education and transition to degree-level study at universities and other tertiary institutes.

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APPENDIX A: Glossary

Note: Many of these definitions are taken or adapted from the NZQA website (www.nzqa.govt.nz). A few are taken or adapted from other websites: in these cases the website is indicated in brackets after the definition.

achievement standard: a nationally registered, coherent set of learning outcomes and associated assessment criteria. Achievement standards are at Levels 1, 2 and 3 on the National Qualifications Framework and cover learning areas related to the school curriculum, including subjects previously covered by School Certificate, Sixth Form Certificate and Bursary. Generally speaking, there are between five and eight achievement standards worth a total of 24 credits in each subject at each level. Achievement standards can be *not achieved*, *achieved*, achieved with *merit*, or achieved with *excellence*. Some are assessed internally and others are externally assessed.

approved subject: NZQA maintains a list of approved subjects for University Entrance, along with the subfield, domain or standards included in this subject. Many subjects offered at schools are not on the University Entrance approved subject list. (See University Entrance).

Bachelors degree: a level 7 undergraduate qualification which normally requires the equivalent of at least three years full-time study. Bachelors degrees are taught at universities, polytechnics, wānanga, and private training establishments. (careers.govt.nz)

Bursary/Bursaries: common abbreviation for University Entrance, Bursaries and Scholarships (see University Entrance, Bursaries and Scholarships).

Cambridge International Examinations (CIE): An examining body which provides a range of secondary school-based qualifications, including AS and A Levels (which provide a pathway for admission to university) and IGCSE. CIE qualifications are offered by around 50 New Zealand schools, as well as schools in many other countries. (www.acsnz.org.nz)

career guidance counsellor: a member of staff at a school who advises students on study options and career pathways.

case study/composite case studies: a case study is research concerning a particular example of something, such as a site/institution, programme, intervention etc. Composite case studies combine findings from more than one site, programme etc.

classification: the National Qualifications Framework classification system classifies unit and achievement standards into fields, subfields, and domains. A field is the broadest classification category, covering a general area of learning, such as Humanities. A sub-field is a smaller category within a field, such as Languages. A domain is a smaller learning area within a subfield, such as French. Normally a domain includes 10-30 unit standards and may also include achievement standards (if it is a school curriculum-related learning area). Some domains – such as Art History, Biology, and Media Studies – are similar to conventional school subjects. In other cases different school subjects are assessed with standards from the same domain. For example, painting, photography and design (which are usually separate school subjects in Year 13) are all part of the Practical Art domain. Other school subjects cover more than one domain. For example, 'English' is a subfield rather than a domain and is made up of three domains - English Oral Language, English Visual Language and English Written

Language. Many schools offer a range of courses (such as home economics or outdoor education) which they choose to assess with standards from more than one domain. This has implications for students trying to gain University Entrance (see University Entrance).

compulsory subject: a subject that all students at a school, or those at a particular Year level, are required to take.

contextually-focused courses: a term used in the NZCER Learning Curves study to refer to secondary school courses which offer a reduced number of credits drawn mainly from unit standards that use only internal assessment, and make closer links to students' current or future life, work, or leisure activities (see also traditional-discipline courses and locally-redesigned courses).

core subject: those subjects considered to be central to school students' studies, particularly English, mathematics, and science.

credit: a numerical value assigned to unit and achievement standards that represents the estimated time needed for a typical learner to demonstrate that all specified outcomes have been met. It should take around ten hours per credit (including class time, independent study, and time spent in assessment) to meet the requirements of a standard. Students must gain a certain number of credits to get NCEA level 1, level 2, and level 3 (see National Certificate of Educational Achievement).

curriculum level: the New Zealand Curriculum has eight levels. Achievement objectives are set out for each level in each learning area.

dean: a member of staff at a secondary school with responsibilities in student personnel services, which may include discipline, administration, pastoral care, and course placement. Schools often have multiple deans, each of whom are responsible for a particular group of students, such as a certain Year level.

decile: all state schools are given a decile rating from 1 to 10. A school's decile indicates the extent to which the school draws its students from low socio-economic communities. Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities, whereas decile 10 schools are the 10% of schools with the lowest proportion of these students. The lower the school's decile, the more funding it receives from the Ministry of Education. Usually, schools with a decile of between 1 and 3 schools are considered to be 'low-decile' schools, decile 4 to 7 schools are considered to be 'mid-decile' schools, and decile 8 to 10 schools are considered to be 'high-decile' schools. (www.minedu.govt.nz)

degree: a qualification awarded after satisfactory completion of and achievement in a programme of advanced study taught mainly by people engaged in research and which emphasises general principles and basic knowledge as the basis for self-directed work. May be a Bachelors degree, Masters degree, or Doctorate.

document analysis: where relevant written sources are examined to gather research data or contextual information.

domain: see **classification**.

endorsement: students have their NCEA certificates endorsed with excellence if they get 50 credits at excellence, at or above the level of the certificate (these credits can be gained over more than one year). For example, students can gain "NCEA Level 2 with excellence". Likewise, students that gain 50 credits at merit (or merit and excellence) will have their NCEA endorsed with merit.

external assessment: all those assessments where the assessment judgement is made by persons outside of the learning institution/school. In NCEA, external assessment is done once a year, through national exams sat in November and

December. A few externally assessed standards, such as graphics and art, require students to submit a portfolio of work. (www.educationcounts.govt.nz)

external moderation: an external process confirming a school's assessment activities are fair, valid and consistent. Involves the submission of samples of student work for a pre-selected standard being verified by an independent external moderator.

focus group: a method of gathering qualitative data in which a group of participants, who are free to interact with each other, are asked to discuss a topic or topics of interest to the researcher.

form teacher: teachers who have a coordinating and pastoral oversight of a class of students. In some schools they may be referred to as whānau teachers or tutor teachers.

head of department (HOD): a middle management position in a secondary school with oversight of the teaching of a learning area, such as mathematics or arts, in the school.

high-decile: see **decile**

internal assessment: all those assessments where the assessment judgement is made within a learning institution. In NCEA internal assessment is carried out throughout the year by schools. All unit standards and some achievement standards are internally assessed. Schools decide how they will assess internal standards and marking is carried out by teachers.

internal moderation: an internal process confirming a school's assessment activities are fair, valid and consistent across all assessors. This includes critiquing and verification of assessment materials for any internally assessed standard.

International Baccalaureate (IB): the International Baccalaureate Diploma Programme is a two-year pre-university course of study administered by the International Baccalaureate Organization. It is offered by eight New Zealand secondary schools, as well as schools in many other countries. Students take six subjects, for which they receive a score of between 1 and 7. Three additional points can be awarded for performance on other requirements. 24 points are needed to gain the diploma, out of a possible 45. (www.ibo.org)

kapa haka: Māori performing arts.

kaupapa Māori: Māori ideology.

learning outcome: an expected result of learning. All unit and achievement standards specify learning outcomes.

level: there are 10 levels of the National Qualifications Framework - 1 is the least complex and 10 the most. Qualifications, as well as their components, such as unit and achievement standards, all sit at a specified level. Levels 1-3 are of approximately the same standard as senior secondary education and basic trades training. Levels 4-6 approximate to advanced trades, technical and business qualifications. Levels 7 and above approximate to advanced qualifications of graduate and postgraduate standard. NCEA qualifications and achievement standards only exist at levels 1 to 3 as they are designed for secondary school students (see National Certificate of Educational Achievement). For other meanings of the term level, see **curriculum level** and **year level**.

locally-redesigned courses: a term used in the NZCER Learning Curves study to refer to secondary school courses which usually cover less of the traditional curriculum content than traditional-discipline courses and use a mixture of unit and achievement standards, sometimes from more than one NCEA level (see also traditional-discipline courses and contextually-focused courses).

low-decile: see **decile**

marker: a person appointed and trained by NZQA to be responsible for ensuring valid, fair and consistent assessment judgements. Markers assist with the operation of the external assessment process, being allocated a number of answer booklets which they are responsible for assessing.

Masters degree: a level 9 qualification that builds on the knowledge and skills of a Bachelors degree, requiring more demanding and intensive study. It usually includes writing a research-based thesis. Most Masters degrees take one or two years of full-time study to complete. (careers.govt.nz)

mid-decile: see decile

moderation: the process of confirming an organisation's assessment activities are fair, valid and consistent with the required standard across a number of assessors or assessing organisations (see **external moderation** and **internal moderation**).

moderation panel: a panel with acknowledged expertise to confirm that assessment results reflect the standard described.

National Certificate: a qualification on the National Qualifications Framework made up of unit standards in a particular area, such as Computing or Tourism. National Certificates are usually registered between levels 1 and 4, and require a minimum of 40 credits at or above the level at which the qualification is registered. Credits gained for a National Certificate can also be counted towards NCEA. Many schools offer National Certificates, and they can also be studied in tertiary courses or in workplace training.

National Certificate of Educational Achievement (NCEA): standards-based national qualifications for senior secondary students in New Zealand, registered between levels 1 and 3 on the National Qualifications Framework. Credits gained from both unit standards and achievement standards count towards NCEA qualifications, which students are awarded at level 1, level 2 and level 3 if they meet the following requirements:

- Level 1: 80 credits at any level including 8 in literacy (reading & writing) and 8 in numeracy (maths)
- Level 2: 60 credits at level 2 or above + 20 credits from any level
- Level 3: 60 credits at level 3 or above + 20 credits from level 2 or above

Typically students work towards Level 1 in Year 11, Level 2 in Year 12 and Level 3 in Year 13. Credits can be gained over more than one year, and used for more than one qualification (e.g. credits gained for NCEA Level 1 can be carried over and used towards Level 2 as the 20 credits which can come from any level).

National Diploma: a qualification on the National Qualifications Framework made up of unit standards and registered between levels 5 and 7. The top 72 credits define the level at which the qualification can be registered and at least 120 of all credits contributing towards the qualification must be at level 4 or above. National diplomas usually take one or two years of full-time study to complete. They are taught through industry training and apprenticeships, as well as by tertiary education providers such as polytechnics and private training establishments.

National Qualification: a qualification based on unit or achievement standards developed with the involvement and support of the appropriate nationally recognised bodies related to the content of the qualification, that can be offered by all accredited providers. (www.kiwiquals.co.nz)

National Qualifications Framework (NQF): collectively, all national qualifications, unit standards, and achievement standards, together with the relationships among these. The National Qualifications Framework (NQF) is designed to provide nationally recognised standards and qualifications as well as recognition and credit for a wide range of knowledge and skills.

NCEA: National Certificate of Educational Achievement.

New Zealand Council for Educational Research (NZCER): an independent research organisation which conducts educational research and evaluation, publishes reports, and provides information and advice to those involved in education. (www.nzcer.org.nz)

New Zealand Qualifications Authority (NZQA): NZQA's primary function is to coordinate the administration and quality assurance of national qualifications in New Zealand. Among other things, NZQA administers the National Qualifications Framework (including NCEA), runs national senior secondary school examinations, registers and monitors private providers of education and training to ensure they meet quality standards, and evaluates overseas qualifications for people who want their qualification recognised in New Zealand.

norm-referenced assessment: assessment in which learner achievement is judged/ranked against the achievements of other learners. Prior to the introduction of NCEA, secondary school qualifications in New Zealand used norm-referenced assessment, which meant marks were scaled so that the distribution of marks was the same from year to year, and a set proportion of students passed and failed.

not achieved / achievement / merit / excellence: the four results possible for achievement standards. *Not achieved* means that the student has not demonstrated the learning outcomes specified in the standard, and is not awarded any credits for the standard. *Achievement* means that the student has met the specified basic standard and will be awarded the number of credits which the standard is worth. If a student meets further specified criteria they can be awarded a *merit* or *excellence* grade (*excellence* being the highest possible grade on a achievement standard). *Merit* and *excellence* grades for a standard attract the same number of credits as an achieved grade, but count towards NCEA endorsements and can help students compete for entrance to limited-entry tertiary programmes. There are only two possible results for unit standards – *not achieved*, if the specified outcomes have not been demonstrated, and *achievement*, if they have.

NQF: National Qualifications Framework.

NZCER: New Zealand Council for Educational Research.

NZQA: New Zealand Qualifications Authority.

NZUEBS: New Zealand University Entrance, Bursaries and Scholarships.

private training establishment (PTE): non-state-owned organisation, registered with NZQA, that provides post-school education and training.

purposive maximum variability sampling: deliberately selecting a wide range of variation on dimensions of interest (e.g. ethnicity, location) when sampling a population, rather than randomly selecting a sample, when conducting research.

QSR NVivo: a software programme used for qualitative data analysis, including storage, retrieval, coding, and linking qualitative data.

qualification: requirements for certification established by a recognised standards-setting body or an education provider.

reassessment: schools have the choice of offering students who have failed to achieve an internally assessed standard a reassessment opportunity for this standard.

Record of Achievement (RoA): an individual learner's transcript of unit standards and achievement standards credited and national qualifications completed, provided by NZQA from a national database.

School Certificate (SC): secondary school qualification withdrawn in 2003 when NCEA Level 1 was introduced, usually taken by students in Year 11. School Certificate was awarded in single subjects, so there was no overall pass in School Certificate. Many School Certificate subjects were a mix of internal and external assessment; others were entirely assessed by an external examination. Some subjects (such as Art, Music and Design Technology) were fully internally assessed by the school and verified by NZQA moderators. Students received a percentage mark, as well as a letter grade, for each subject. Internal assessment marks were scaled, external examination results were not.

School Results Summary: a list provided to students when they leave school showing all the standards they have attempted and the results.

secondary school: a school that caters for students from Year 9 to Year 13 (i.e. from around the age of 12 or 13 to 17 or 18).

semi-structured interview: an interview where the interviewer has a pre-prepared list of questions or topics to be covered in the interview which can be deviated from to some extent.

senior management team: the group of staff in a school who have senior leadership and management roles, such as the principal, deputy principal(s) and assistant principal(s).

Sixth Form Certificate (SFC): secondary school award withdrawn in 2003 with the introduction of NCEA level 2, generally taken by students in Year 12. Required at least four hours of supervised study per week in each subject. Sixth form certificate was internally assessed, with students assessed by their schools throughout the year. Students were given a grade between 1 and 9 (with 1 being the best) for each of their subjects. Schools were awarded a pool of grades based on their students' performance in School Certificate the previous year, which schools then allocated to individual students. The national distribution of grades remained the same from year to year. In 2003, most schools offered NCEA level 2 instead of Sixth Form Certificate. Schools could also offer a transitional Sixth Form Certificate in 2003 and 2004 instead of or in addition to NCEA level 2.

Sixth Form Certificate (transitional): award available in 2003 and 2004, distinguishable from the Sixth Form Certificate by the term 'transitional' because it was not possible to base school grade pools on the previous year's School Certificate results (as School Certificate had been replaced by NCEA level 1).

stakeholder: a person, group, or organisation which has interests in a particular endeavour, policy or programme.

standards: defined learning outcomes, together with performance or assessment criteria, examples of their interpretation and application, and associated quality assurance processes. Includes unit standards and achievement standards.

standards-based assessment: process of judging learner achievement against defined standards, rather than in comparison to the performance of other learners (norm-referenced assessment).

Te Reo / Te Reo Māori: the Māori language.

tertiary education: post-secondary education; includes learning undertaken in the workplace as well as with providers such as polytechnics, universities, wānanga and private training establishments.

traditional-discipline courses: a term used in the NZCER Learning Curves study to refer to secondary school courses similar to those taken by most students pre-NCEA which are usually assessed by the full complement of achievement

standards for the subject (see also locally-redesigned courses and contextually-focused courses).

triangulation: the synthesis of data collected using multiple methods and/or from multiple sources to strengthen interpretations and corroborate findings.

UE: University Entrance.

unit standard: a nationally registered, coherent set of learning outcomes and associated performance criteria. Unit standards were originally developed to assess workplace learning but were subsequently developed for conventional school subjects. Unlike achievement standards, unit standards can only be achieved or not-achieved, and are all internally assessed. All unit standards are registered on the National Qualifications Framework, assigned a level and a credit value, and may contribute to the award of a National Certificate or Diploma, as well as NCEAs and University Entrance.

University Entrance (UE): the common educational standard established, after consultation with the universities and the New Zealand Vice-Chancellors' Committee, and maintained by NZQA as a prerequisite for entrance to university for people under 20. Currently gaining University Entrance requires:

- a minimum of 42 credits at level 3 or higher on the National Qualifications Framework, including a minimum of 14 credits at level 3 or higher in each of two subjects from the approved subject list, with a further 14 credits at level 3 or higher taken from no more than two additional domains on the National Qualifications Framework or approved subjects.
- a minimum of 14 credits at level 1 or higher in Mathematics or Pāngarau on the National Qualifications Framework
- a minimum of 8 credits at level 2 or higher in English or Te Reo Māori; 4 credits must be in Reading and 4 credits must be in Writing.

Generally, New Zealand universities have a number of limited-entry programmes – particularly in professional areas such as medicine, engineering and architecture – which have entry criteria additional to University Entrance. From 2009, all undergraduate qualifications at the University of Auckland will be limited-entry.

University Entrance, Bursaries and Scholarships (UEBS): a national secondary school qualification usually taken by students in Year 13 before it was replaced by NCEA level 3 in 2004. Candidates could qualify for entrance to university, gain monetary awards, and be awarded scholarships for high achievement in individual subjects. Candidates who gain five or six scholarship grades received monetary awards as part of the Top Scholar awards. Some subjects were assessed entirely by an external end-of-year examination, in others there was a combination of internal assessment from the work completed during the year and a national examination. Physical Education was fully internally assessed, and in practical art subjects a folio of work was submitted for assessment by a national marking panel. In all subjects marks were scaled so that the distribution of marks remained the same from year to year. Students received a percentage mark, as well as a letter grade, for each subject.

wānanga: an organisation recognised as a wānanga by the Crown under the Education Amendment Act 1990, section 162. Wānanga are tertiary institutions that provide education in a Maori cultural context. There are currently three wānanga in New Zealand. They offer certificates, diplomas, bachelors degrees, and postgraduate courses.

year coordinator: an administrative position in some secondary schools with responsibilities for a particular Year level, in particular with regards to timetabling of courses and changes in subject choices. Also known as a level coordinator.

year level: school students move from Year 0 or 1 through to Year 13. Secondary schools teach Years 9 to 13, and students usually work towards NCEA Level 1 in Year 11, NCEA Level 2 in Year 12, and NCEA Level 3 in Year 13.

APPENDIX B 1: Student Demographic Questionnaire

STARPATH PROJECT

NCEA Course Choices: Who makes them, how, and why?

DEMOGRAPHIC QUESTIONNAIRE – STUDENTS

Participant code number This will be provided by the researcher. Please do not write your name on this form.

(1) Are you? Female Male

(2) How old are you? Years Months

(3) Where were you born?
New Zealand Overseas If overseas, how long have you lived in New Zealand? years

(4) Do you identify yourself **primarily** as?
NZ Maori NZ European or Pakeha Samoan Tongan
Cook Island Maori Chinese Indian Niuean
Other (please specify)

(5) What is your current year of enrolment?
Year 10 Year 11 Year 12 Year 13 Year 13+

(6) What subjects are you enrolled in this year?
i. ii. iii.
iv. v. vi.

(7) Are you aiming to complete the University Entrance qualification?
Yes, this year Yes, in the future No Not sure

Thank you for taking the time to complete the questionnaire.

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE
ON 8th August 2007 for three (3) years from 08/08/2007 to 08/08/2010, Reference 2007/269

APPENDIX B 2: Parent Demographic Questionnaire

STARPATH PROJECT

NCEA Course Choices: Who makes them, how, and why?

DEMOGRAPHIC QUESTIONNAIRE – PARENTS/CARE GIVERS

Participant code number This will be provided by the researcher. Please do not write your name on this form.

(1) Are you? Female Male

(2) What is your age group?

29 yrs or less 30 - 39 yrs 40 - 49 yrs 50 - 59 yrs 60 yrs +

(3) Where were you born?

New Zealand Overseas If overseas, how long have you lived in New Zealand? years

(4) Do you identify yourself primarily as?

NZ Maori NZ European or Pakeha Samoan Tongan
Cook Island Maori Chinese Indian Niuean
Other (please specify)

(5) What is your highest educational qualification?

Primary School Secondary School Trade or Work based Qualification
Bachelors degree Masters or higher degree

(6) What is your current occupation?

Please list here _____

Or, tick one of the following:

Housewife / Househusband Self employed/own business Unemployed
Sickness / Disability beneficiary Single Parent Beneficiary Retired
Other (please specify)

(7) What is your annual family income (before tax)?

\$20,000 or less \$20,001 – \$30,000 \$30,001 – \$50,000 \$50,001 – \$70,000 \$70,001+
(\$384 per week) (\$385 - \$576 per week) (\$577 - \$961 per week) (\$962 - \$1346 per week) (\$1347+ per week)

Thank you for taking the time to complete the questionnaire.

**APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS
ETHICS COMMITTEE ON 8th August 2007 for three (3) years from 08/08/2007 to
08/08/2010, Reference 2007/269**

APPENDIX B 3: Teacher Demographic Questionnaire

STARPATH PROJECT

NCEA Course Choices: Who makes them, how, and why?

DEMOGRAPHIC QUESTIONNAIRE – TEACHERS

Participant code number This will be provided by the researcher. Please do not write your name on this form.

(1) Are you? Female Male

(2) What is your age group?

29 yrs or less 30 - 39 yrs 40 - 49 yrs 50 - 59 yrs 60 yrs +

(3) Where were you born?

New Zealand Overseas If overseas, how long have you lived in New Zealand? years

(4) Do you identify yourself primarily as?

NZ Maori NZ European or Pakeha Samoan Tongan
Cook Island Maori Chinese Indian Niuean
Other (please specify)

(5) What is your highest educational qualification?

Teacher Certificate / Diploma Bachelors degree Postgraduate Diploma
Masters degree Doctoral degree

(6) How many years of teaching experience do you have?

Including any part-time teaching years

(7) Is your current job mainly in?

Teaching Academic Counselling or advising Administration

Thank you for taking the time to complete the questionnaire.

Please place the completed questionnaire in the envelope provided and hand to the interviewer.

**APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS
ETHICS COMMITTEE ON 8th August 2007 for three (3) years from 08/08/2007 to
08/08/2010, Reference 2007/269**

APPENDIX C 1: Student Interview Schedule

STARPATH PROJECT – NCEA Course Choices: Who makes them, how, and why?

Interview Schedule – Students

Given the qualitative, semi-structured nature of the interview, and the need to exercise sensitivity to individually and culturally preferred styles of communication, the actual wording of the questions and the order in which questions were asked or issues raised varied slightly with each interview.

- *Can you tell me a little about yourself as a student?* (How long have you been at this school? What subjects/levels/standards are you taking this term? What are you like as a student – conscientious, hard working, unmotivated.....?)
- *What is school like in your experience?* (What do you enjoy [and don't enjoy] about school? What is a good day [and a bad day] at school like for you?)
- *What can you tell me about the NCEA subjects and standards you have chosen so far?* (How were choices made? How much say did anyone else have in these choices (parents, siblings, friends, teachers....)? Is there someone special you talk to before deciding on the next lot of NCEA choices?)
- *When were these decisions or choices made?* (When starting high school? Before the start of each school year? When asked by a teacher to hand in a form? Last minute?)
- *Can you tell me why you've made the specific NCEA choices?* (What or who influenced your choice of [eg, level 1 French]. Looking back, was this a good choice - why or why not?)
- *Looking at the choices you have made so far, what do you think these choices will help you achieve?* (eg, Complete Level 2 Certificate? Get into a Polytechnic or University? Learn specific skills? Satisfy parents' expectations?)
- *Can you tell me a little about how education is seen within your family?* (What education have your parents completed? What kind of work do they do? How involved are they in your school work [eg, Making sure you do your homework? Discussing what you are reading or studying?]? How often do they have contact with your teachers or school activities?)
- *What else are you involved in on a regular basis* (paid work, housework or minding younger siblings, sport, going out with friends, church activities), *and how do such activities affect your studies?* Have your NCEA study choices been affected by any of these activities?
- *What do you think your parents/family or others expect from you in terms of school achievement?* (How does that compare with what you hope to get out of your school experience?)
- *What do you hope (and plan) to do on leaving school?* (What study, training, work or career hopes do you have? How do you see the NCEA choices helping you to get there?)

The interview concluded with an invitation to add further information and ask questions.

APPENDIX C 2: Parent Interview Schedule

STARPATH PROJECT – NCEA Course Choices: Who makes them, how, and why?

Interview Schedule – Parents/Care Givers

Given the qualitative, semi-structured nature of the interview, and the need to exercise sensitivity to individually and culturally preferred styles of communication, the actual wording of the questions and the order in which questions were asked or issues raised varied slightly with each interview.

- *Can you tell me a little about yourself and your family?* (Family size; number and ages of children; how long living in the area; community connections and important activities [work; sport; church; extended family....?])
- *What is your son's/daughter's school like, as far as you can see?* (What are the school's strong [weak] points? What does he/she enjoy [not enjoy] about school? How well is the school preparing him/her for the future [work; tertiary study; university]? How much contact do you have with the teachers and/or school activities?)
- *Can you tell me what you understand about the NCEA qualifications system used in secondary schools?* (What information have you had about NCEA from the school or other sources? How clear and helpful was/is the information? How confident are you in discussing NCEA issues with your son/daughter and teachers?)
- *What can you tell me about the NCEA subjects and standards your son/daughter has chosen so far?* (Who made the choices? How were the choices made? How much say did you or anyone else have in these choices [son/daughter, career advisers, friends, teachers....]?)
- *When were these decisions or choices made?* (When son/daughter started high school? Before the start of each school year? Last minute? How much family discussion was there?)
- *Can you tell me why your son/daughter made the specific NCEA choices?* (What or who influenced his/her choice of [eg, level 1 French]. Looking back, was this a good choice - why or why not?)
- *Looking at the choices your son/daughter has made so far, what do you think these choices will help him/her achieve?* (eg, Complete Level 2 Certificate? Get into a Polytechnic or University? Learn specific skills? Satisfy your expectations?)
- *Can you tell me a little about how education is seen within your family?* (What education have you completed? What kind of paid work do you do? How involved are you in your son's/daughter's school work [eg, Making sure they do their homework? Discussing what they are reading or studying?]? How often do you have contact with their teachers or school activities?)
- *What is your son/daughter involved in outside of school* (paid work, housework or minding younger siblings, sport, going out with friends, church activities), *and how do you think such activities affect his/her studies?* Have their NCEA study choices been affected by any of these activities?
- *What do you expect from your son/daughter in terms of school achievement?* (How does that compare with what you think he/she hopes to get out of their school experience?)
- *What hopes or plans do you have for your son/daughter once they've left school?* (What study, training, work or career hopes do you have for them? How do you see the NCEA choices helping them to get there?)

The interview concluded with an invitation to add further information and ask questions.

APPENDIX C 3: Teacher Interview Schedule

STARPATH PROJECT – NCEA Course Choices: Who makes them, how, and why?

Interview Schedule – Teachers

Given the qualitative, semi-structured nature of the interview, and the need to exercise sensitivity to individually and culturally preferred styles of communication, the actual wording of the questions and the order in which questions were asked or issues raised varied slightly with each interview.

- *Can you tell me a little about yourself and your current work as a teacher [career advisor/counsellor]? (How long have you been teaching [at this school]? What subjects/levels/standards do you teach? What other roles do you have within the school?)*
- *What is this school like in your experience? (What are its strengths [weak points]? What are its biggest challenges? How is the school changing?)*
- *What has been your experience with the NCEA system so far? (What are its good [bad] points? How is it working in practice?)*
- *How well do teachers understand the system and the options it provides? (Are there areas/aspects of NCEA that are unclear or not well understood?)*
- *How well do students understand the system and the options it provides? (Are there areas/aspects of NCEA that are unclear or not well understood?)*
- *How well do parents/care givers understand the system and the options it provides? (Are there areas/aspects of NCEA that are unclear or not well understood?)*
- *How and when are NCEA choices made? (How much input do you see coming from teachers, parents/care givers, siblings, peers, individual mentors? How early are decisions made [at the start of secondary school; beginning of each year; last minute]? How deliberate and thought out are these decisions?)*
- *Why do you think students make [or end up with] the choices they do?*
- *How well do individual students' NCEA choices match their aspirations and career plans? (And how well does the NCEA system in practice help students to review choices or change direction in response to changed aspirations or plans?)*
- *In your view, to what extent do external influences impact on students' study and NCEA choices (eg, sport, paid work, social life, church, family or community commitments)?*
- *To what extent are teachers [you] involved in advising students generally about NCEA study choices? On what basis is the advice given?*
- *To what extent are teachers [you] involved in advising individual students? (When, how often, why, with what effect?)*
- *Can you think of an individual student [eg, 'wy' or 'xy'] and tell me why and how he/she opted for specific subjects/standards this year?*
- *Do you see any patterns in the NCEA choices made [in terms of gender, socioeconomic background, cultural/ethnic affiliation or other factors]? (Do any of these factors influence the advice students might receive about NCEA choices?)*

The interview concluded with an invitation to add further information and ask questions.

APPENDIX D 1: Student Focus Group Schedule

STARPATH PROJECT – NCEA Course Choices: Who makes them, how, and why?

Focus Group topics – Students

(A) First, here are some findings. It would help us to hear your comments on what these findings mean and what explanation you might be able to offer for them:

A.1 Students and teachers have told us that one of the main reasons for choosing a particular NCEA subject is that a student “likes” the subject.

What does that mean?

- * When you say that you like maths, or drama, or sport & rec, what do you mean by that?
- * What subjects do you like the best and why?
- * Is being good at something the same as liking it?
- * Is it possible to change and start liking a subject that you did not like before? Or vice versa?
- * What would be some of the reasons for that?

A.2 Students have told us that they choose their NCEA courses, but we also have evidence that these choices are changed by the school. Sometimes it is a timetabling issue; sometimes the school considers the student’s choices to be unrealistic or inappropriate.

Has that happened to you?

- * Can you tell us what happened and how you were told?
- * What sort of discussion or conversation did you have about that and with whom?
- * How did you feel about that?

Who do you think knows best what courses are realistic and appropriate for you?

- * If you would like to do a particular subject but your parents want you to do something else and then your teacher or Dean tells you that you would be much better doing something different again, what happens? Whose choice wins?
- * (Eg you want to do maths, your parents want you to do computers, and your form teacher says that you would probably be best to do materials technology – what do you do?)

(B) Second, here are some issues on which we need more information. What can you tell us about these issues?

B.1 Some students seem to have very clear goals from Year 10 or even earlier, and make their NCEA choices in a way that helps them to achieve their goals. They seem to be in a minority. Many more students seem a lot less clear about what they should be studying, and what they want to do when they leave school. Sometimes students find themselves in Year 13 not being able to do what they really want to do because they don’t have the right standards or enough credits in the right standards. There is a sort of mismatch between what they have done at school and what they want to do in terms of further education.

Hands Up!!!

How clear are you (or some of your close friends) about what you want to do when you leave school, and what you need to be doing in terms of NCEA subjects and standards to match your goals?

- * If you get the subjects right, does it matter which standards you take?
- * If you still don’t know exactly what you want to do in the future, what can you do to make sure that your NCEA results will allow you to do what you want?
- * Many parents expect their children to achieve more than they did at school (did not have the same opportunities). What happens if your parents expect you to go to university but you have

other plans, or just don't want to go to university? (How does that affect your subject and standard choices?)

* What kind of a student do you need to be to take courses for going to 'university'? What would you need to do to be successful in such courses?

* What is the difference between university and other tertiary institutions? (and between diploma, or certificate, degree)?

(C) Finally, we have a couple of new questions that we didn't know we needed to ask in the initial study. We would like to know what your answers might be.

C.1 We have been told that students are 'conflicted' – trying to do too many things (part-time work, work around the house, church, sport) – and that school sometimes comes last on the list of priorities.

Do you agree?

* If you don't do as well as your teachers or your parents would like you to do, what might be the reasons?

* What is doing well for you? (trying hard, not failing anything, getting excellences?)

* What do your parents say when they see your ROL (do they get to see it)? When do they think that you are doing well at school?

* What are the consequences of not doing well; what happens at school?

* Have you ever thought what you might need to give up (at least during term time) in order to do well in your studies?

C.2 Sometimes students are advised or made to change subjects (or classes), eg from doing art to doing history or geography, or from doing maths to doing tourism, or simply from doing achievement standards in English to doing only unit standards.

Has that happened to you or someone you know well?

* What are the reasons for such advice or changes? (student ability, past results, behaviour, timetabling problems, classes already full....?)

* What happens when students are made to change classes? (does it affect motivation to study, future subject/standards choices....?)

APPENDIX D 2: Teacher Focus Group Schedule

STARPATH PROJECT – NCEA Course Choices: Who makes them, how, and why?

Focus Group topics – Teachers

(A) First, here are some findings. It would help us to hear your comments on what these findings mean and what explanation you might be able to offer for them:

A.1 Students and teachers have told us that one of the main reasons for choosing a particular NCEA subject is that a student “likes” the subject.

What do you think students mean when they say that they like a particular subject?

- * When they say that they like maths, or drama, or sport & rec, what do they mean by that?
- * Is being good at something the same as liking it?
- * Is it possible for students to change and start liking a subject that they did not like before? Or vice versa?
- * What would be some of the reasons for that?

A.2 Students have told us that they choose their NCEA courses, but we also have evidence that, quite often, these choices are changed by the school. Sometimes it is a timetabling issue; sometimes the school considers the student’s choices to be unrealistic or inappropriate.

What can you tell us about that?

- * What sort of conversation would you have with a student who you thought needed to change the subjects he or she had selected?
- * In your experience, how do students react to such a conversation?

Who do you think knows best what courses are realistic and appropriate for a particular student?

- * How well do you know individual students and how hard they are working on their studies?
- * Can you give us some examples of students who you thought had chosen a set of subjects or standards that were either inappropriate or unrealistic for them?

A.3 Students have also told us that in some cases they “don’t deserve” or they hadn’t “earned the right” to be in certain classes.

- * What do you think this means? Why do you think students would say that?
- * Can you tell us how students’ behaviour might affect the subjects or classes they end up doing?

(B) Second, here are some issues on which we need more information. What can you tell us about these issues?

B.1 Some students seem to have very clear goals from Year 10 or even earlier, and make their NCEA choices in a way that helps them to achieve their goals. They seem to be in a minority. Many more students seem a lot less clear about what they should be studying, and what they want to do when they leave school. Sometimes students find themselves in Year 13 not being able to do what they really want to do because they don’t have the right standards or enough credits in the right standards. There is a sort of mismatch between what they have done at school and what they want to do in terms of further education.

Hands Up!!!

At the age of 15 or 16, how clear were you about what you wanted to do when you left school, and what you needed to be studying at school in order to match your goals?

- * How different are the students you are teaching today?

* What are the risks within the NCEA system for students who are not altogether clear what they should be doing (they have a general but not a specific idea; they are weighing some very different options [science teacher or hairdresser], or they are trying to reconcile their parents' vs their own ambitions)?

* What can you as teachers do to make the years your students spend at school count in the long run?

And a possibly touchy question, that we nevertheless need to ask: Students have told us that they are assigned to subjects or classes because they have misbehaved, "mucked around" or not worked hard enough in other classes.

* To what extent is student's behaviour (rather than their ability or aspiration) a key factor in what options they are given?

* If this happens, what is the underlying rationale for such decisions by teachers and schools?

B.2 We have been told that many parents are still unclear about many aspects of the NCEA system. It makes it difficult for students to have meaningful conversations with their parents about what they are doing at school and why. (It also makes it easier for students to cover up what might be going on or how little they might be achieving).

What can you tell us about that?

* How much work are schools putting into educating parents about the NCEA?

* What community initiatives are you aware of that are trying to inform parents about the NCEA and how it is affecting their children, eg within particular community groups?

(C) Finally, we have a couple of new questions that we didn't know we needed to ask in the initial study. We would like to know what your answers might be.

C.1 We have been told that some students are passive, expecting others to decide for them or accept collective decisions made by their family group rather than asserting their individual choices and accepting individual responsibility for how well they do at school – the so called "external locus of control".

Do you agree? If yes, why? If not, why not?

* How do you address this issue with your students, if at all?

* What are the effects of this on students' achievement?

C.2 Finally, how do schools decide what resources to place into which subjects, how many classes (eg, in Level 3 History or Retail) to organise for the following year, etc? Including, how decisions are made about vocational subjects (how many, which ones, etc) and about the balance of approved subjects, achievement standards, and unit standards? [It seems an incredibly complicated task to strike the right balance – how would you judge that you have achieved it?]

Similarly, how do schools decide which standards to include in configuring particular subjects (eg, whether to include astronomy, or human biology, or plant science in a science subject). How important are these decisions as far as you are concerned? How might such decisions about course content affect students' performance at university (or in other tertiary education courses)?

Any other comments about NCEA system and how well it is serving your students?

Any other issues?