

The Starpath Project Annual Report 2013



Starpath

A University of Auckland Partnership for Excellence



**THE UNIVERSITY
OF AUCKLAND**

NEW ZEALAND

Te Whare Wānanga o Tāmaki Makaurau



Starpath

A University of Auckland Partnership for Excellence

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Starpath Project

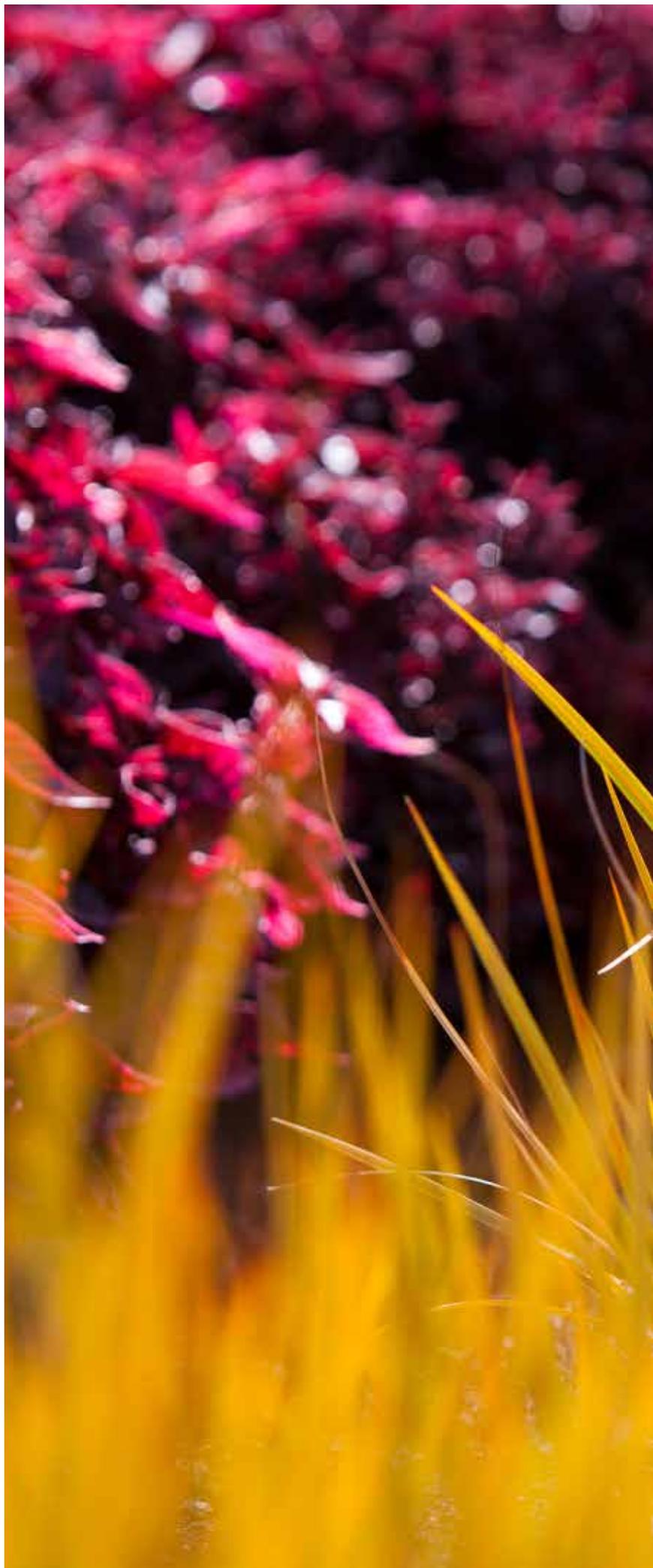
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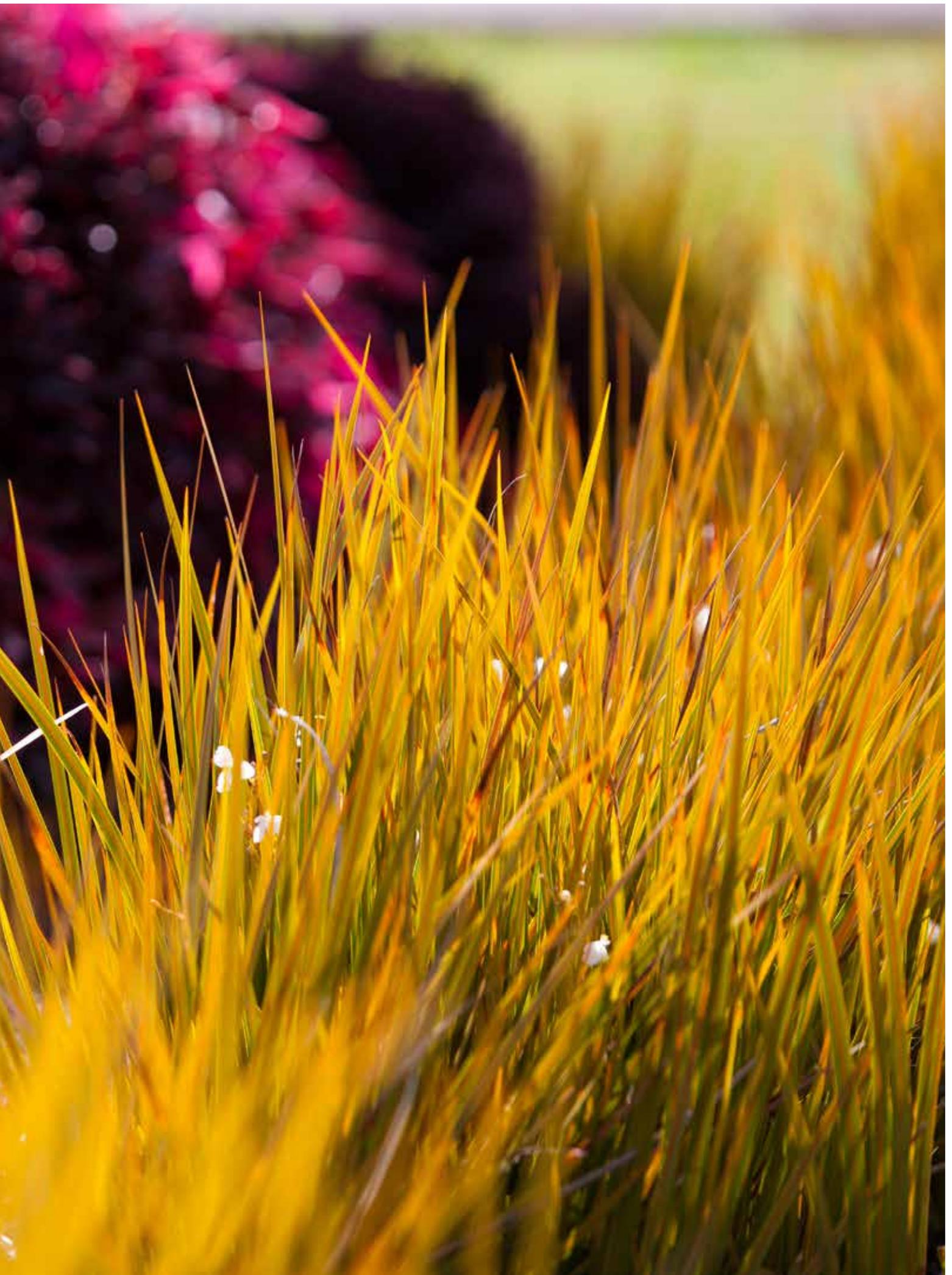
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In starting the Starpath Project, the University was driven by a concern that low-income, Māori, and Pacific students did not have an equal opportunity to enter and succeed in tertiary education.

In 2001 only 385 Māori students and 172 Pacific students across New Zealand gained an A or B bursary, a minimum requirement for entry into most limited entry university courses. When the national average for gaining a bursary was 19%, only 4% of Māori and 4.7% of Pacific students left school with the qualification. The distribution of A and B bursaries by decile level of school was also inequitable, ranging from 0% (Decile 1) to 80% (Decile 10).

This meant relatively few students from low decile schools enrolled in university programmes that led to high income jobs and

the professions. In addition, Māori and Pacific students were more likely to enrol in diploma and certificate courses than in degree level courses.

In Phase 1 (2005-2010), Starpath worked with partners in the secondary school system and the tertiary sector to identify the barriers for Māori, Pacific and low decile school students in progressing through secondary education and to tertiary study especially degree level study. The project team developed methods of using, analysing and understanding longitudinal educational data, enabling the achievement of individual students and groups of students

to be tracked over time. These data and their tracking provided a sound evidence base for setting student targets and guiding their achievement.

Starpath Phase 2 addresses the barriers identified during Phase 1 through a programme that focuses on a whole school approach to developing high quality data systems and processes. It uses data to improve school practices and to reduce disparities in student outcomes for Māori and Pacific students and students from low decile schools.



From the Chair

In July 2013, the Starpath Partnership for Excellence between The University of Auckland and the Crown reached the half-way point in the second five-year phase of working with selected schools in Auckland and Northland. Starpath's original goal was to raise achievement in low-and-mid decile

secondary schools so that a greater number and proportion of young people would gain the qualifications needed to enter degree study. That remains the goal.

Several members of the Starpath Board recently attended a conference with principals and other senior leaders of Starpath schools. The focus of the day was the challenge involved in leading school improvement in New Zealand. There was no doubt that school improvement is one among many challenges faced by our teachers, principals and school boards of trustees. School improvement means improving teaching and learning. It may also mean ensuring students are safe and healthy, that school buildings don't leak, that the information technology works, that teachers get paid and that the school engages effectively with its community. But improved teaching and learning must be the top priority. Nothing is more important for the future of the country. No child should be without the opportunity to learn to the best of their ability. Every teacher should have the skill, the time, and the tools to enable each child to achieve at this level.

None of this is easy. What we would like to see is a steady trajectory of upward achievement in all of our schools. Nationally this is the picture that comes through NCEA data. It is the picture for Starpath schools at some levels and in some years. But it is not the picture for all schools, not at all levels, and not for all cohorts of students. A cohort of students can do well one year and the next year some small factor - a change in policy, a shift of focus, some external disturbance - can bring a set-back. Improvement can be kick-started; the real tests are sustaining and accelerating it. The Starpath Board is committed to supporting this endeavour in every way it can.

The Board is aware of the dedication, commitment and enthusiasm of all those who work in and with the Starpath Project. We would like to thank each and every one of them, along with those who provide support from outside, the ASB Community Trust and the Tertiary Education Commission, in particular.

Professor Raewyn Dalziel
Chair, Starpath Board



From the Director

In the past 12 months the wider Starpath team has been very busy with the delivery of professional learning workshops in establishing quality data in schools, and building school culture and capacity in using their data to inform their decision-making. This has involved the team delivering numerous workshops

on data, literacy and leadership; carrying out observations of parent-student-teacher conferencing, academic counselling, and in literacy classes; and working one-to-one in all 34 Phase 2 schools. This makes up the main work of Phase 2 - working closely with schools to enable us to provide quality feedback on their practice. Staff have worked hard to consolidate the Starpath work in all schools.

Data have become a higher priority for government agencies in the last year. It was July last year when I attended the first meeting of the Minister of Education's Ministerial Cross Sector Forum on Raising Achievement. A pleasing development from this forum from a Starpath point of view is to see the Ministry of Education make more transparent the data they collect, by publishing it in formats that are more user-friendly for schools and the wider public generally. The recently published 'pipeline' information for the whole of New Zealand, broken down into 16 districts, is a good example. This information shows at a glance important measures of student progress through the education system, from participation in early childhood through to how many 18-year-olds are retained in education. Many of us are just used to only seeing our

own 'section' of the pipeline. Publishing pipeline data lays open all parts of the education system for all to see. This can only be a positive move. In the future we should be looking to see what happens to a cohort as they move through the system, but it will be a while before these data are available.

From August 2013 Starpath will be entering a very important phase of the project. In Term 3 we begin carrying out the evaluation of the first group of Phase 2 schools. While we have been undertaking regular observations of Starpath activities in schools, these have been done for the express purpose of giving constructive feedback to schools to improve their practice. The time has come to determine if Starpath and our partner schools have been able to improve the outcomes for students in Starpath schools.

I want to thank the staff for all their work during the last 12 months and look forward to the next year.

Professor Elizabeth McKinley
Director, Starpath Project



Starpath strategies expand to new schools

In the second half of 2012, 18 new partner schools began their professional learning journey to incorporate the 'Starpath Strategy for Success' into their schools.

Our new schools (known as the Group B schools) come from as far away as the Far North (Taipa Area School) to South Auckland (Sir Edmund Hillary Collegiate). They also include our smallest and most remote schools – Whangaroa College and Te Kura Takiwa o Manganuiowae/ Broadwood Area School. The Group B schools, when compared with the more urban-located Group A schools, bring other dimensions to Starpath. Eight of the Group B schools are located in Northland and they tend to be rural, have small secondary level rolls, and many are bicultural and/ or bilingual. The other ten schools are located in Auckland, including four single sex schools of which two are integrated schools.

In the second half of 2012 the baseline data were collected from the new 18 Group B schools. This entailed a detailed survey of the student achievement data held by the school, a qualitative description of the school derived from a series of interviews with key school leaders and a collection of school generated documents such as their charter and annual reports. By the end of the year each school had received a written profile describing current achievement levels, self-reported school strengths and challenges, and what they had told us they wanted from the Starpath Project.

The quantitative Starpath team also began working with each school to lay the foundation of their evidential database (EDB) that would eventually be used for school data analysis and inquiry. To introduce

Group B Student Achievement Managers (SAMs) to database and data analysis processes, a series of workshops was held in Auckland, Whangarei and Paihia. In 2013 the Group B schools began an intense time of professional development.

Workshops were designed to teach target-setting skills and to introduce data analysis using the EDB. While the workshops were designed for Group B schools, they were also open to all Starpath schools if they wanted to refresh their knowledge. The workshops were followed by regular visits to discuss the development and maintenance of the EDB and to discuss the challenges each school faced.

Workshops were also held to introduce to all schools the new Academic Counselling DVD. All schools took up the offer, including some of the original Partner schools. The DVD, made with the help of Massey High School and Manurewa High School, in part shows an example of a counselling session and highlights the benefits of the academic counselling relationship. Following these workshops a number of schools requested follow-up staff training sessions to be held in their schools and these occurred in the first half of 2013.

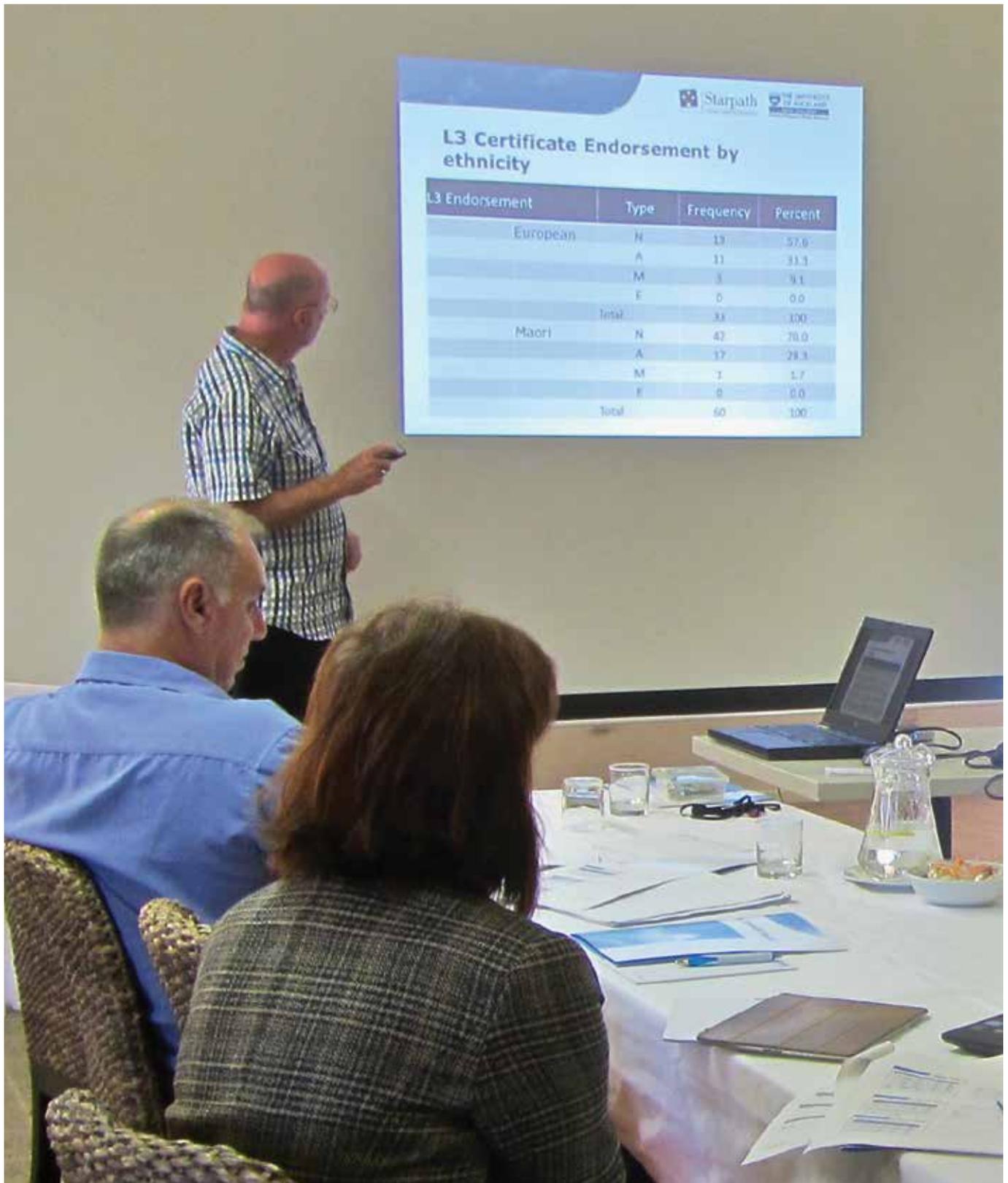
Throughout 2012 and 2013 the Starpath team has made several visits to Group A and B schools to observe the academic counselling conversations that occur between teacher and student, and parent,

student and teacher. Shortly after the visit the school receives a short written feedback report that provides comment on the organisation, the positive interactions observed, and includes recommendations for possible further development.

Over the last 12 months the 16 Group A schools that joined in 2011 continued to implement the Starpath programme. The last term of 2012 saw Starpath visiting the Group A schools to take a 'snapshot' of their progress. These monitoring visits involved interviews with principals and senior leaders who were encouraged to talk about the first 18 months of implementation and their plans for further development. There was also

time taken to assess the database development and determine further training needs. Over the 2012-2013 summer period the Starpath team assisted some schools to review and update their databases.

Group A schools were also involved in literacy and leadership workshops. Observations in Maths, Science and English classes were carried out in the second half of 2012 followed up by a series of four workshops related to NCEA Level 2 literacy development. The workshops were carried out in conjunction with the University of Auckland Centre for Educational Leadership targeting middle leaders in Science, Maths and English.





Starpath schools' update: small schools reap big rewards

While Starpath has established partnerships with some of Northland and Auckland's biggest schools, area schools with small student rolls are also benefitting from joining the project.

In 2012 three small rural schools joined our partnership. Broadwood Area School (Te Kura Takiwa o Manganuiowae), Taipa Area School and Whangaroa College. Along with Kaitaia College, Northland College and Bay of Islands College, these schools form a loose cluster. Each of the schools serve communities that have been hard hit economically in recent times and all have a majority of Māori students on the roll.

The schools share the common features of being small and relatively isolated - Whangaroa and Broadwood schools have rolls of about 110 students, while Taipa had 329 students in 2012. Broadwood Area School, about 40 minutes back road driving from Kaitaia, is the most isolated of our partner schools. Whangaroa College and Taipa Area School, while linked by a high quality road, State Highway 10, are well over an hour's journey from Whangarei.

Schools in such isolated locations pose considerable challenges in terms of connection to other schools and access to professional development. Travel time and costs can be a serious barrier to teachers attending courses or facilitators visiting the schools. By locating workshops in the Far North, Starpath has attempted to mitigate the distance barrier and, because of the clustering nature of the project, these isolated schools can connect with bigger schools in the region. Being part of the Starpath Project also provides these rural schools an opportunity to share ideas and experiences with urban schools.



Jack Anderson, Principal at Whangaroa College, took advantage of the Principals' Day organised by Starpath recently to visit an Auckland school. He says:

"We enjoyed being able to connect with Massey High School in Auckland and recognised that the strategies they were using to assist with future planning and school charter development could also be used in our rural setting."

Small populations of senior students in these three schools have led to some interesting data discussions. Percentage comparisons from year to year are almost meaningless in a situation where one student can make a 50% difference. Starpath has worked with the schools on an actual numbers basis. Two schools, Broadwood and Taipa, have the advantage of ready access to student progress data from previous years.

One of Starpath's methods to improve student outcomes involves offering schools new ways to enhance relationships with families and community. Our rural schools have taken this opportunity wholeheartedly and have had outstanding success with this fresh approach. Broadwood reports it has had contact with the families of every secondary student in the school and Whangaroa tells us it has had substantial improvement in the numbers of parents coming to meet teachers. Small schools have always been able to claim close knowledge of every child, and they are now making connections with every family.

Jack Anderson:

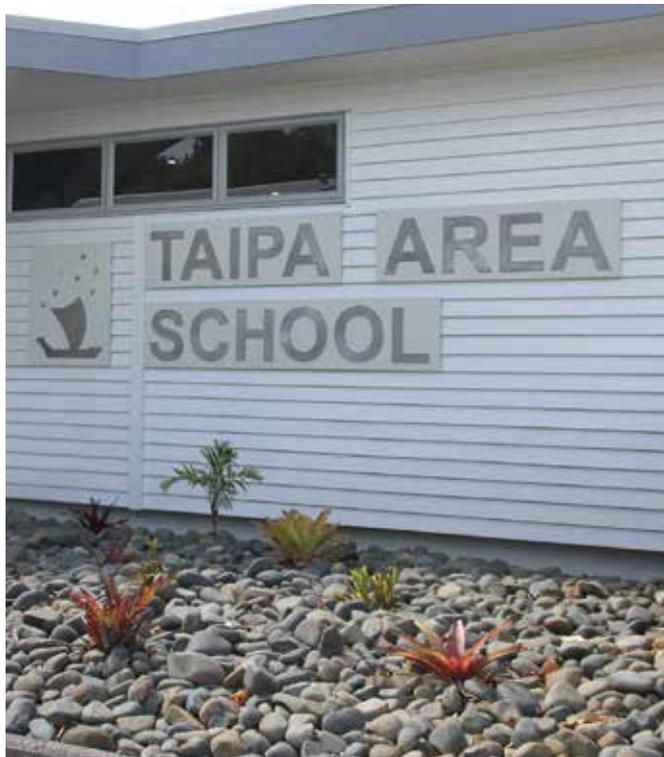
"The best tool we have incorporated from the Starpath Project is the Academic Counselling and Parent Student Teacher (PST) conferences. Our students' educational journey is now realised and enriched through quality academic counselling sessions. The PST conferences have improved relationships between whānau and the school while ensuring the child's academic performance remains at the centre of all conversations. The participation rates at our first PST conference (the old parent evenings) increased from 20% to over 75% with an amazing 95% recorded for Year 11 students. This is a great outcome for the school and we look forward to increasing this participation rate in the future."



Likewise Pani Hauraki, Principal at Broadwood Area School, says her school benefitted greatly from academic counselling, as it allowed staff to focus on the academic data in hand and give parents instant access to these data at parent-teacher days, rather than using the meeting time to address behavioural issues.

She says:

"All of our senior syndicate teachers can now confidently talk about data, can analyse the data and set goals for the next stage. Our students and whānau acknowledge that to have the presence of Starpath in our school raises our mana."



Pateriki Toi, Principal at Taipa Area School, says working with Starpath has helped the school to refine its systems and hold more meaningful conversations with students about academic progress. He says:

"Starpath has encouraged us to reflect on the effectiveness of our school systems that monitor and respond to student NCEA progress regularly throughout the year, rather than wait until it is too late. This has involved refining our three-way academic interviews held with whānau twice a year, and redesigning our academic counselling processes with individual students each term. This has resulted in better use of our school management systems to collect information and respond to it.

We have also increased the number of conversations with students about how they are doing and what improvements can be made. This has enabled us to set more specific targets around groups of students within each year group, rather than targets for the whole year group. We have instigated a system of collecting information from teachers about individual students in a visual way that will strengthen the three-way interviews with whānau and academic counselling processes by providing better information to students about where they are and what they have to do.

Starpath has also encouraged syndicate meetings to focus on student progress - teachers looking at data, asking questions and coming up with solutions. Involvement in the project has also got us thinking about ways to better engage whānau, not just through the counselling processes, but also what kinds of events we can organise at school to strengthen whānau capabilities and engagement. This will include later in the year a redesign of our careers evening with parents to include education about NCEA."







Starpath students engage in tertiary education

With significantly more schools on board, Starpath is able to build a better picture of how students are progressing to tertiary study – both before and after its interventions.

An increase in the number of Māori and Pasifika students, and other students from low socio-economic backgrounds, transitioning from secondary school into degree-level study is an important goal for the Starpath Project. Too many of these students do not have the opportunity of enrolling in degree level when they leave school. One of our aims is to change this pattern.

The Better Public Service Targets programme launched by the current government in March 2012 has brought a focus on increasing the number of students leaving secondary school with NCEA Level 2 and increasing the proportion of 25 to 34-year-olds with advanced qualifications. Sitting between these two targets rests student engagement with tertiary study – where this research is centred.

The Starpath Project, in partnership with the Tertiary Sector Analysis Team in the Ministry of Education, has begun to track students leaving the Starpath schools to see if and where the students from these schools enrol for further study.

The Ministry of Education data enabled us to examine the post-secondary destinations of students from the 16 Phase 2 Group A schools. As 2011 was the first year these schools had engaged with the Starpath Project we gathered transition data covering 21,956 school leavers in the years from 2003 to 2010, establishing a baseline to compare differences.

In order to measure the impact of the Starpath intervention on leavers from the Phase 2 Group A schools, we needed to determine how many students were currently enrolling in tertiary study. Firstly we needed to identify the *participation rates* of students in degree-level study, and secondly we wanted to identify current *retention rates*¹ of school leavers who entered degree level studies.

Over the period 2003 to 2011², just over 15% of all students from the 16 schools participated (i.e. enrolled) in degree level study in the first year after leaving school. Almost 30% of the students enrolled in sub-degree level study, a further 14% were engaged in training, and just over 41% were not engaged in any form of tertiary education. Eleven of the 16 schools had more than 10% of their school leavers enrolled in degree level study, with one school having a participation rate as high as 31%. Of all students who progressed to degree-level study directly from school, the retention rate is around 90%.

Below is a breakdown of other significant trends to emerge from the analysis of all the Phase 2 schools' data provided by the Ministry of Education.

¹ 'Retention in degree-level study' has been defined as enrolment in degree-level study in one academic calendar year and enrolment in degree-level study the following academic calendar year.

² 2011 is the first year 2010 school leavers enrol in tertiary study.

By ethnicity

From all the data, on average, Māori (6.8%) and Pasifika (8.2%) students have markedly lower rates of progression to degree-level study than their European (23.1%) and Asian (30.8%) peers. For sub-degree level study, the rates of progression from high school are fairly similar to the rates of progression to degree-level study for European and Asian students, but three to four times as many Māori and Pasifika students progress to sub-degree level study as to degree-level study. Aggregating degree-level and sub-degree level study, the participation rates are Māori (32.2%), Pasifika (40.7%), European (49.2%) and Asian (62.8%). Over 45% of Māori and Pasifika students are classified as Other in their first year after leaving school, indicating that almost a half are not recorded in any form of education or training in New Zealand.

Over all 16 schools the retention rate for Māori and Pasifika students in degree-level study is a little less than 80%, while the retention rate for European and Asian students was just over 90%.

It has become increasingly common for today's students to take a 'gap year' between school and study. An interesting finding in the data was that a significant number of students from Starpath schools take one or more years off from any form of study immediately after leaving school. Unfortunately, it can mean that students do not make it back to study. Māori and Pasifika students who take a gap year are progressing to degree-level study at slightly less than half the rate of Asian and European students.

By gender

There was a noticeable difference in the participation rates of female and male students in degree-level study from the data as well. Females participated in degree-level study at one-and-a-half times the rate of their male peers – the female participation rate was 18%, but the participation rate of males was just over 12%. Females also out-numbered males in sub-degree-level study but males were more numerous in Training and in the Other category. In their first year after leaving school, almost a half of all female students (49.5%) were participating in degree-level or sub-degree level study, compared with 38% of their male counterparts. While the gender difference in progression to degree-level study was marked for Phase 2A schools, these relative gender proportions of progression are almost identical to the rates of progression to degree-level study for all New Zealand school leavers (Engler, 2010).

However, this differential rate of participation in degree-level study of about 3:2 did not apply uniformly across all 16 Phase 2A schools. At one Group A school, for instance, females (5.5%) and males (3.9%) progressed to degree-level study at fairly similar rates (that is, about 8 males for every 11 females from the school), whereas at another Group A school the progression rates were more disparate (females at 24.1% and males at 9.7% - that is, about 5 males for every 12 females).

Open entry to university

There has been recent discussion about open entry to university and degree-level courses with a view to removing the provision for students aged over 20 to enrol without University Entrance. Using the Starpath Phase 2 Group A school data, we explored whether such a change in policy would impact on some groups of students more than others.

Students were classified by the MoE Tertiary Sector Analysis Unit as having obtained UE when at school, not having obtained UE at school, or having had UE conceded.

The term 'conceded' has been used to describe those students who were enrolled in degree-level study but who had no formal record regarding the New Zealand University Entrance qualification. There are a number of possible ways in which UE could be conceded. For example, students could use a high level of performance at Year 12 as evidence of their ability to succeed in degree-level study, or an equivalent overseas qualification obtained while on an exchange programme.

Of the students who met the UE requirements, over 70% participated in degree-level study in the first year after leaving school, slightly over 10% participated in sub-degree-level study, a little over 2% were in training, and nearly 16% were categorised as Other.

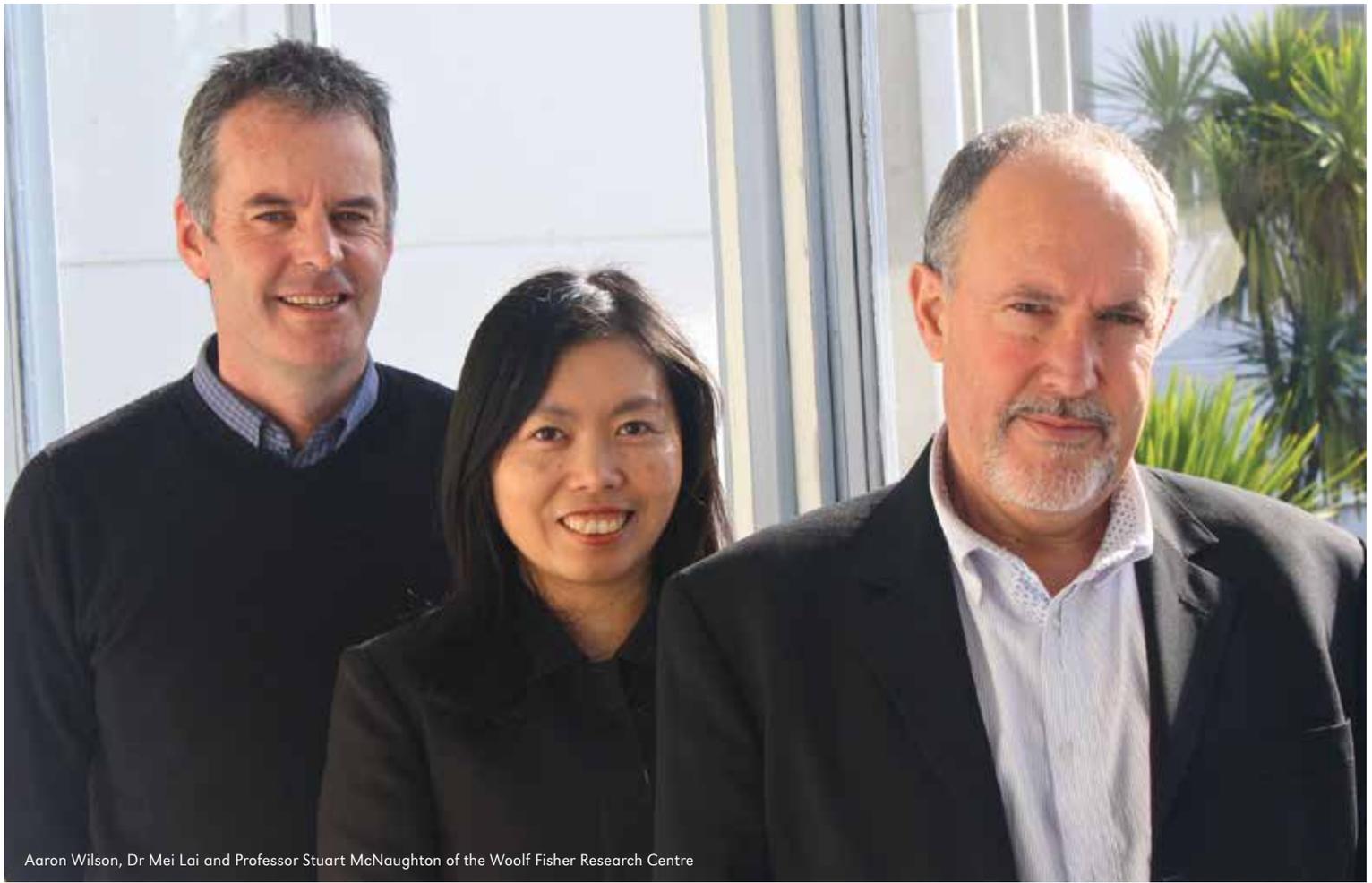
For the students who had UE conceded, a little over 80% enrolled in degree-level study in their first year after leaving school, none enrolled in sub-degree level study, none enrolled in some form of Training, and 19% were recorded in Other. It should be noted that those students with conceded UE in the Other category, while not in degree-level study in their first year, all proceeded to participate in degree-level study in their second or third post-secondary year. Of those who had not met the requirements for UE, 1.3% were participating in degree-level study.

We explored this latter finding a little more by examining the open-entry students in degree-level study – that is, students who were aged 20 years or older and did not have UE. We found none of the Māori students over the age of 20 who enrolled for the first time in degree-level study had the UE qualification, or had UE conceded. In other words, they were entirely dependent on the open-entry provision. Any change to the open entry provisions would have a huge impact on Māori students over the age of 20 from schools like these 16 Phase 2A schools.

There is a far lesser impact on the other four ethnic groups of students. Almost 80% of Māori undergraduates under 20 have UE on entry to degree-level study, while about 10% have UE conceded and a further 10% enter without UE. As noted above, all Māori students aged 20 or over who enter degree-level study do so without having gained either UE or having UE conceded.

Our next step is to compare these baseline data against 2012 student progression into degree-level study following the Starpath intervention. These data are expected to become available in 2014.





Aaron Wilson, Dr Mei Lai and Professor Stuart McNaughton of the Woolf Fisher Research Centre

Woolf Fisher extends literacy project to more schools

The Woolf Fisher Research Centre (WFRC), a Starpath Project partner, has extended its work to improve literacy to a further 16 schools.

Literacy has a significant influence on achievement in all subject areas, and gaps in subject literacy have been identified as a significant barrier to achievement. In the second half of 2012 the WFRC team began working with the 16 (Group A) schools completing a detailed profiling project.

The main focus was to identify student achievement patterns and the characteristics of teachers' knowledge and practice which contribute to those patterns. This will inform the design of a targeted professional development plan and provide a pre-intervention baseline against which progress can be measured.

The Group A schools are low-to-mid decile schools from Northland and Auckland. Overall attainment rates for NCEA Levels 1, 2 and 3, and University Entrance (UE) between 2008 and 2012 were analysed. The results were consistently between 10% and 20% lower than attainment rates nationally, with little change in these rates relative to national pass rates. These analyses reveal large disparities between different groups. For example, in NCEA Level 1, the attainment rate for NZ European students in Group A schools was between 5% and 10% above national, but Māori and Pasifika students' attainment rates were between 12% and 25% below national.

As with the original Starpath partner schools, achievement standards with a high literacy component from English, Mathematics and Science were used as a principal measure of subject literacy. Students' pass rates and enrolment rates in these standards were analysed separately for each school, and for the cluster as a whole. Analyses show that the pass rates for the 21 targeted achievement standards were consistently below national rates and in most cases were 10% to 20% below. Enrolment rates for these standards were also low by national standards.

The main findings from these pre-intervention teacher measures were that:

- Students had limited opportunities to read and write rich subject-area texts. A high proportion of texts students were provided to read were teacher created and written on the whiteboard. Text books and published materials were seldom used in observed lessons.
- Students had limited opportunities to participate in extended discussions about the texts that they read. Fewer than 2% of the observed blocks featured these discussions.
- Teachers were aware of and regularly taught students about subject related vocabulary. There was little attention to developing students' own strategies for learning new vocabulary.
- The texts students have to read to achieve well in NCEA have complex subject-specialised structures and language – but there was little teaching about these.

Four half-day literacy workshops have been delivered to Group A schools. For each workshop, four sessions were offered, two in Auckland and two in Whangarei, to make it easier for schools to release leaders to attend. On average, about 75 attendees (middle and senior leaders) from 14 of the 16 schools have attended the workshops. Results of analyses of student achievement data were presented and discussed at Workshop 1 and those to do with teacher measures at Workshop 2. The remaining workshops are professional development sessions in the areas of need identified above. In addition, whole day workshops in subject-specific literacy are being offered early in Term 3 in English, Mathematics and Science, again with parallel sessions in Auckland and Whangarei.

Participants have generally responded positively and provided an average rating of 5.7 out of 7 for the most recent workshops. Classroom observations and the measures of teachers' literacy knowledge will be repeated with Group A schools in Term 3, 2013 to identify whether changes have occurred in association with the professional development programme.

The profiling of teaching consisted of classroom observations and a measure of teachers' knowledge of literacy and literacy teaching. Classroom observations were carried out with 50 Year 12 teachers (English, Mathematics and Biology) in 10 of the 16 schools in Terms 3 and 4. All 16 schools were invited to participate in classroom observations, however, six schools declined to participate mainly because of workload issues and teacher reluctance.

The profiling and professional development work with Group B schools (18 new schools recruited in early 2012) follows the same structure as that for Group A, although the professional development content may well be different depending on the findings from the profiling. Professional development workshops with Group B schools will commence in late 2013 or early 2014. Classroom observations have been conducted in nine Group B schools so far and five more schools are scheduled for Term 3. Analyses of Group B student achievement data are also underway.





Distinguished Professor Viviane Robinson

Leadership development in partner schools

Quality support for school leaders is crucial in enabling Starpath partner schools to be effective in implementing Starpath initiatives and raising achievement.

Starpath Project partner the University of Auckland Centre for Educational Leadership (UACEL) is continuing to provide this support via a series of workshops held with senior and middle leaders in partner schools. Starting in November 2012, the workshops ensure that improvement strategies are well-coordinated and address the pressures on school leaders which can make success difficult to achieve.

The Centre has completed four workshops with 14 Group A schools (two deferred engagement until next year), as well as with the five original Starpath partner schools. The workshops are enabling the school's senior and middle leaders to embed the changes required to reach ambitious goals for improved Māori and Pasifika achievement at NCEA Levels 2, 3 and UE. The whole-day workshops are shared with a Woolf Fisher Research Centre team presenting on subject specific literacy teaching.

During the first UACEL workshop, a specifically designed questionnaire was administered to assess senior and middle leaders' understanding of the barriers to reaching Starpath goals, and their effectiveness in addressing them. The 13 barriers had been identified during the completion by the UACEL team of case studies in the five Starpath pilot schools. They included such things as student absence, undesirable variation in teaching quality, low literacy levels and competing demands on teacher time.

Workshop 1: Joining the Dots

Secondary schools are usually departmentalised and hierarchical in their leadership and management structures. This can make coordination between departments and year levels difficult. And yet coordination is known from research to be crucially important for school improvement: without a joined-up effort, school improvement interventions (such as Starpath) will not succeed (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Murphy, 1992). The first workshop therefore emphasised the need for orchestrated, high quality initiatives across multiple domains within a school. Distinguished Professor Viviane Robinson, Academic Director of the UACEL, described this as a “joined up school-wide approach, through ruthless focus on key goals, while creating the conditions that enable their achievement”.

Each workshop was a chance to discuss one or more of the five coordinating mechanisms for school improvement: goal setting; organisational infrastructure for achieving goals such as reliable and timely data collection and processing; a culture of collective responsibility; high quality teacher professional learning; and strategic senior leadership. Each of these mechanisms has an important role in school improvement and a school must be strong in all of them to get good results. Leadership’s role is to create an intensive focus on key goals which, crucially, involves managing and reducing – even well-intentioned – distractions: for example, ‘yet another initiative’. As one middle leader observed, “In terms of organising (all the initiatives we have) my teaching is about twentieth on the list; and that’s appalling – it should be top”.

Workshop 2: Reducing Undesirable Variation in Performance

An essential leadership skill for achieving change is addressing the tough issues, including those concerned with teacher behaviour and performance. An Open-to-learning Conversation (OTL™) provides a way of addressing such issues that is both effective and respectful. This approach improves the quality of conversations, increases trust and promotes good quality decisions. Training in this method of approaching such challenges was the subject of our second workshop, held in February 2013. It was well received and included practice scenarios for leaders to rehearse the OTL approach. Referring to the training, one leader described it as “extremely useful because it shows us how to have the conversations we avoid”.

Workshop 3: Reducing Barriers to Goal Achievement

Leaders create the conditions for improvement by reducing barriers to improved teaching and learning: in other words they facilitate problem solving. Barriers (as identified in the leadership questionnaire) and problem solving formed the basis for the third workshop in May 2013. The significant messages to emerge from the questionnaire were that senior leaders tended to see themselves as more effective than their middle leaders saw them (in solving problems arising from the barriers identified) and that, on the key barrier of variability in teaching effectiveness, senior leaders significantly underestimated how seriously this problem was perceived by middle leaders. A considerable proportion of this workshop was spent with each school team discussing its own school data and learning about a model of problem solving.

Workshop 4: Improving Goal Setting

Goal setting is a key coordination mechanism. Goals need to be clear and specific, attainable yet challenging, and elicit commitment from those involved. The fourth and final workshop was held in August 2013 and addressed the need, as evidenced by the responses about goals from the questionnaire, for schools to have clearer, more tightly focussed goals, which are both memorable and better aligned to their overall strategic plan.

References:

- Bryk, A., Sebring, P. B., Allensworth, E., Luppescu, S., & Easton, J. Q. (2010). *Organizing schools for improvement*. Chicago: University of Chicago Press.
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Research summaries

Integrated programme evaluation (Progress Report)

Over the past year we began statistical modelling to help strengthen our knowledge of the effectiveness of all the Starpath interventions in the Group A schools.

A pivotal question was asked: after one year of Starpath, how are our students performing in NCEA? This involved in-depth statistical modelling and was broken down into two key areas of research:

- Whether NCEA results in the first year of Starpath were better than previous year's performance.
- How NCEA achievement in the 16 schools compared with national norms.

The 16 Group A schools are located in Northland and Auckland and represent deciles one to six (but mainly decile one). Students are identified as one of five ethnicities: Māori, Pacific, NZ European, Asian and Other. The integrated programme is made up of three

components: the Data Utilisation Academic Counselling and Target Setting (DUACTS) programme; leadership; and literacy. This evaluation will look at how these three components contribute to improving outcomes, and how they interact with each other. At the time of this report only one year of the DUACTS component has been studied.

The study compared the schools' 2011 NCEA data, with NCEA data from 2006-2010. The results were also compared against national 2011 NCEA results (with all Starpath intervention schools removed from the data set).

At this point in time the intervention has been more successful in improving Level 1 and 2 qualifications than UE and Level 3. However, it may be that the issues related to achievement are so entrenched it will take more time to make a difference to the outcomes in Level 3 and UE.

The intervention also appears to have a differential effect, with better progress made with NZE and Asian students. There are a number of explanations for this outcome, including a differential implementation system in schools, or that the interventions do not work equally well for all students. It may also suggest the presence of a 'Matthews effect' (NZE and Asian students generally obtained more qualifications than Pacific and Māori students to start with). Further work is required to determine the reasons for these outcomes more fully.

Science departments and student achievement data

Starpath has been working with science departments in nine partner schools to better understand and improve the use of student achievement data. An exploratory study completed between August and November 2012 supported the departments in using student achievement data to improve teaching and learning, particularly for Māori and Pacific students.

The study was based on informal discussions with science HODs, educators and researchers on the issues they face when collecting and utilising data to improve teaching and learning. This found that quality data utilisation is of great concern to science HODs.

The study builds on the view that helping teachers to understand the implications of systematically collecting, organising, and using longitudinal data through feedback and dialogue will enhance evidence-based practices in the classroom.

Two strands of student achievement data use which influenced decision making in science departments were identified as a result. The first strand was driven by pressure on schools to lift the NCEA pass rates, which inadvertently results in courses and curriculum offerings that may impact on opportunities for students to engage in future learning.

The second strand concerned the access and availability of junior school data for decision-making. There was a wide variation in the way junior science achievement data was collected, analysed and interpreted in the nine schools. Without quality data from more than one source at the junior level, student opportunities for progressing into senior NCEA courses may be limited by a lack of systematic feedback to the HODs or science teachers to inform planning and placement.

Building capacity to use data

In February 2013, a second workshop was held with the nine partner schools on the Fathom data modelling software. This catch-up session was an opportunity to learn about Fathom and how to use it to visualise and explore their student achievement results.

Following from this, one of the participants introduced this software to the whole science department via a workshop. As a result a small-scale survey of Year 11 students' perception of subject and career choice was initiated by one of the lead science teachers, examining why Māori students were opting out of Science at Years 12 and 13 in this school. The data collection has been completed (in May) and further analysis is ongoing.

Another school decided to build a science achievement database. The science HOD realised that besides having cross-sectional data, they needed to collect reliable

longitudinal results of student achievement at both junior and senior levels. Several follow-up meetings and discussions were carried out between February and April, which led to the building of a science department evidential-database. This process is ongoing with the plan of collecting and analysing the new assessment tool data over time.

Junior science achievement data

A further study is examining the use of a standardised science assessment tool (developed by NZCER) on Year 9 students in six of the nine Starpath partner schools mentioned above. In particular, the study looks at the impact of access to standardised junior science achievement data on science HODs and teachers' data literacy, and how best to use the data for planning, teaching and learning. This is an important way forward to having comparative data from schools for target setting, tracking and monitoring junior science performance, especially for Māori and Pacific students who are under-represented in higher track science courses. Further training has been planned for the participating science teachers to use the assessment tool as well as develop strategies on interpreting and using the data obtained.

Understanding what success means to Pasifika students

In 2012, Rosemary Mose completed a dissertation, as part of her Master of Professional Studies in Education, on Year 13 Pasifika students who were doing well academically. In particular she explored their conceptions of success and learning at secondary school. Rosemary chose to focus on this topic as much of her work at the time and the available literature focused on Pasifika students' underachievement, rather than achievement. Students who took part in the study were on target to achieve NCEA Level 3 and UE, with at least some credits with Merit or Excellence grades.

Rosemary's key findings were that:

- These students defined success as a journey rather than a destination. They aspired to be successful and were prepared to work hard, but were less confident about specific goals and strategies needed to get them there.
- They benefitted from academic counselling, and three-way conferences with parents and teachers, but needed more focused effort to help them develop mutually shared understandings of 'success' and career goals. This was particularly important for students who had difficulty separating their individual aspirations from those of their families, or translating their aspirations into clear goals.
- Despite doing well academically and aiming to go to university, few had definite action plans for when and how to apply for admission to specific courses and institutions, for scholarships, or for student support that would be essential to their transition to university studies.



Rosemary's study concluded that Pasifika students would navigate the transition to tertiary education and reach their aspirations for 'success' more easily, if provided with clearly structured support from teachers and families working together.

Rosemary works for the Ministry of Education in Auckland. She is married and has two young daughters.



Masters study links literacy and UE for Pasifika students

Having taught English in both Cook Islands and New Zealand, Natalie Faitala became concerned about the numbers of Pasifika students failing to achieve UE and therefore unable to move on to university studies. She had observed that such students often struggled to meet the literacy requirements and tended to make poor subject choices. Looking for stronger evidence, Natalie undertook research for her Master of Education thesis, titled *Pasifika Pathways – Educational Journeys: The influence of literateness in English on subject choice and University Entrance for Pasifika students in Years 12 and 13*.

Natalie's findings identified a paucity of literate practices such as reading and writing in the students' homes, and a lack of parental involvement in decisions around students' subject choices. Students had limited understanding of NCEA and inaccurate understanding of their academic abilities and progress within the NCEA system. Although there was a link between students' literacy skills and subject choice, this link was not significant. Natalie's research supports the need for more effective school-home partnerships, and greater availability of books and other literature in students' homes. It also suggests a need for more intensive and focused academic advising in schools to support Pasifika students and their families to plan clear academic pathways and make more informed NCEA subject choices.

Natalie Faitala is Head of English at Wesley College and convenor of Komiti Pasifika PPTA.





Project outputs

(1 July 2012- 30 June 2013)

Published articles

- Irving, S.E., & Gan, M. (2012). Data systems in secondary schools: The state of play. *Computers in New Zealand Schools*, Vol.24, No. 2, pp.108–136.
- Lai, M., McNaughton, S. Amituanai-Toloo, M., Hsiao, S., & Turner, R. (2009)/ (2013) Can sustained acceleration of achievement in reading comprehension be achieved through schooling improvement? In Alvermann, D.E., Unrau, N.J., & Ruddell, R.B. (Eds.). (2013). *Theoretical models and processes of reading* (6th ed.). Chapter 11 (pp. 297 -338). Newark, DE: International Reading Association.

Conference presentations

- Madjar, I. & McKinley, E. (2012) *Stumbling Blocks or Stepping Stones? Talking about Transition into University*. Workshop presented at the HERDSA Conference held at the Grand Chancellor Hotel, Hobart, Tasmania. July 2 – 5, 2012.
- McKinley, E. (2012) *Connecting with the Other: Why Black America Sings Bob Dylan*. Closing keynote address to the HERDSA Conference held at the Grand Chancellor Hotel, Hobart, Tasmania. July 2 – 5, 2012.
- Santamaria, A. (2012) *The Starpath Project: Addressing Inequities of New Zealand Secondary Schooling*. Presented at the 17th Annual Values and Leadership Conference, Australian Catholic University, Brisbane, Australia. 1 October 2012.
- Webber, M. (2013) *The Starpath Project: Improving student achievement in NZ secondary schools*. Seminar presented at University of Wisconsin-Green Bay, Illinois, USA. 28 February 2013.
- Lai, M & McNaughton S. (2013) *New Zealand: Analysis and discussion of classroom and achievement data to raise student achievement*. Paper presented in Symposium: Data-based Decision Making in Education around the World: Challenges and Opportunities. AERA annual meeting. April 27th – May 1st 2013.
- Gan, M., Irving, S. E., & Webber, M. (2013). *Exploring an alternative approach to ethnicity measure on the mathematics and science achievement of Māori and Pasifika secondary students*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, USA. April 27th – May 1st 2013.

- McNaughton, S. & Lai, M. (2013) *Designing schools for more equitable outcomes*. Paper presented in Symposium: Disrupting poverty and educational inequality. AERA annual meeting. April 27th – May 1st 2013.
- Wilson, A. & McNaughton, S. (2013) *Constraints and Enablers in a Secondary Literacy Intervention Designed to Produce High Equity Outcomes*. Poster presented at AERA annual meeting. April 27th – May 1st 2013.

Other presentations

- Eaton, J. and Irving, S E. (2012) *The Starpath Project*. Presentation at the West Auckland Education Forum, Auckland, 30 March.

Starpath seminars, workshops and lectures

- Professor Liz McKinley presented a seminar for University staff focusing on Understanding NCEA, 20 September 2012. The seminar was presented as part of a series to support staff combining parenting with a career and was organised by the Equity Office.
- Professor Liz McKinley's inaugural lecture 22 August 2012 on "Equity and Excellence in Māori Education Research". Over 150 people attended including staff, students, whānau, teachers and school leaders from the wider education community.
- K.Bonnici and J. Eaton presented a Workshop on Learning Conversations in 'Engaging parents in learning conversations' workshop to the AIMHI ICT PD Regional Cluster. Invited by Chris Jager from Cognition Education. 10 August 2012.
- Guest lectures to EDPROFST 612 (Dr Irena Madjar and Dr Earl Irving). July 2012; April 2013.
- Guest lectures to EDPROFST 754 (Research Methods, Dr Irena Madjar).

Starpath Toolkit

- Academic Counselling DVD Resource. Finalised in October 2012 and 100 copies produced for use in professional development in Starpath schools. An event to thank schools for their contribution was hosted by Starpath in December and the professional development programme was subsequently finalised.

- Demonstration DVDs (draft) were created to support data work in schools, particularly target setting and Excel manipulation skills to help student achievement managers with processing data. These are still in draft form.

Starpath Wikispace

- Successfully launched in October 2012. The private Starpath wikispace to support partner schools with implementation of Starpath strategies was launched at the beginning of Term 4 (October).

Ministerial meetings and visits

- Professor Liz McKinley invited to be on the Ministerial Cross-Sector Forum (MCSF) on Raising Achievement. Meetings have been held in Wellington every two months over the last 12 months. Professor McKinley co-chairs the Benchmarks for Progress subgroup for the forum. Irving & Gan (2012) was chosen as reading material for Progress and Achievement Initiative (PAI) Forum members.
- Meeting with the Minister, Hon. Hekia Parata, Saturday 9 March.

Other meetings and events with key stakeholders

- Joy Eaton met with Sue Warren, Alison Sutton, Shirley Johnson, Hauauru Rawiri from COMET Auckland 10 July 2012 to update them on the Starpath Project.
- Professor Liz McKinley met with the Trustees of the First Foundation to discuss Starpath's key findings to date and issues facing the types of students that the First Foundation support. Trustees also canvassed Professor McKinley's thoughts about whether the model adopted by the First Foundation is set up to have the greatest impact and how the foundation benchmarks its effectiveness moving forward.
- Professor Liz McKinley met with Antony Backhouse (CEO) and Scott Gilmore (Chair and founder) from the I Have a Dream Foundation, 24 October 2012. Shared findings and discussed future directions for the foundation and the use of *Unibound?* as a resource in their Mentor/Dreamer workshops to support students with the transition into university. Professor Liz McKinley attended a follow-up meeting 26 October 2012.

- Professor Raewyn Dalziel met with Monica Briggs, CEO of the YWCA on 20 November 2012. The YWCA has mentoring programmes in schools and tertiary institutions including Starpath schools, The University of Auckland, AUT and Unitec.
- Professor Liz McKinley met with Jeremy Wood, Jane Chapman, Rawiri Gibson (Ministry of Education) on 22 November 2012 to discuss Starpath initiatives and share information about three Ministry projects.
- Professor Liz McKinley presented to the ERO Auckland Regional Hui on 30 January 2013 held in Pukekohe.
- Joy Eaton and Professor Liz McKinley presented to the Teach First NZ initial cohort to raise awareness of Starpath, February 2013.

- Joy Eaton met with a group of student achievement practitioners who are active in at least one or more of the Starpath schools.
- Professor Liz McKinley and Professor Raewyn Dalziel attended the RFP “Building on Success” presentation to MoE (with Waikato University and Te Whare Wānanga o Awanuiārangi) 19 March 2013.
- Professors Liz McKinley, Raewyn Dalziel, and Graeme Aitken met with Lisa Rodgers and Jeremy Wood (MoE) regarding the possible extension of Starpath into focusing on Years 9 and 10, 20 March 2013.
- Professor Liz McKinley met with Virginia Burton-Konia and Grant Malins (MoE, PB4L) at Starpath Monday 13 April 2013.

Starpath Events

- Starpath principals’ day, Ellerslie Events Centre, 27 May 2013. Attended by principals from each of the five original Starpath partner schools and Phase Two (Group A and Group B) partner schools.

Summer Scholar

- Lewis Thorogood (December 2012 – February 2013) Report: A longitudinal survey of teachers in Starpath schools about data use. (Dr Earl Irving, Supervisor)



Project media coverage

(1 July 2012- 30 June 2013)

General media coverage about the Starpath Project:		
Media	Date	Title/Details
Te Kuaka, Faculty of Education Magazine	August 2012	<ul style="list-style-type: none"> • <i>Starpath director lends expertise to ministerial forum</i> (p11). News in Brief article about Professor Liz McKinley's role on the new Ministerial Cross-Sector Forum on Raising Student Achievement. • <i>Breaking the barriers between home and school</i> (p20). Feature article about Starpath's parent-student-teacher conferences. www.education.auckland.ac.nz/tekuaka
The Weekend Herald	11 August 2012	<ul style="list-style-type: none"> • <i>Champion for consensus</i>: Feature article profiling Dame Anne Salmond prior to her presenting the inaugural Sir Paul Reeves Memorial Lecture on 17 August. http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10826111
Herald on Sunday	23 September 2012	<ul style="list-style-type: none"> • <i>Why teachers are furious (and parents are curious)</i>. Feature articles with comments from Professor McKinley and Professor Stephen May about league tables. http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10835874
Radio NZ	4 October 2012	<ul style="list-style-type: none"> • Minister of Education criticised for comment about teachers' pronouncing Māori and Pacific names incorrectly: Professor Liz McKinley interviewed for comment.
Radio New Zealand [Insight Programme]	7 October 2012	<ul style="list-style-type: none"> • Insight into the link between poverty and underachievement. Professor Liz McKinley and Professor Stuart McNaughton comment about the link between poverty and low educational achievement. http://www.radionz.co.nz/national/programmes/insight/20121007





The Starpath Project moving forward

Now we have reached the halfway mark of the Starpath Project Phase 2 our thoughts and plans are oriented towards 'finishing the job'. There are four strands we need to bring forward for the next two-and-a-half years.

1. To continue to deliver the core programme to the Group B schools (18).
2. To manage our exit from the Group A schools (16).
3. To work with the Ministry of Education.
4. To continue to carry out further research.
5. To continue on Starpath toolkit development

Programme delivery (July 2013 – June 2014)

- The Data Utilisation, Academic Counselling and Target Setting initiative will continue to be consolidated in the Group B partner schools, with a focus on professional development in data interpretation. Further work in target setting, tracking and monitoring, academic counselling, and parent-student-teacher conferences will be done on request.
- Monitoring PST and AC meetings will be carried out and feedback provided to the Group B schools.
- Literacy and leadership programmes will be introduced.

Exit from Group A Schools (July 2013 – 2014)

Evaluation of the impact and effectiveness of the intervention in Group A schools will be carried out. This includes:

- Carrying out individual interviews with key Starpath personnel.
- Carrying out focus groups with teachers and students at all levels.
- Carrying out classroom observations of literacy practices in Maths, Science and English.
- Gathering school achievement data from the 2013 school year.

Individual school evaluation information will be discussed with schools.

Working with the Ministry of Education

Discussions are to be held with the MoE regarding how the Starpath findings can be implemented in more secondary schools in the country.

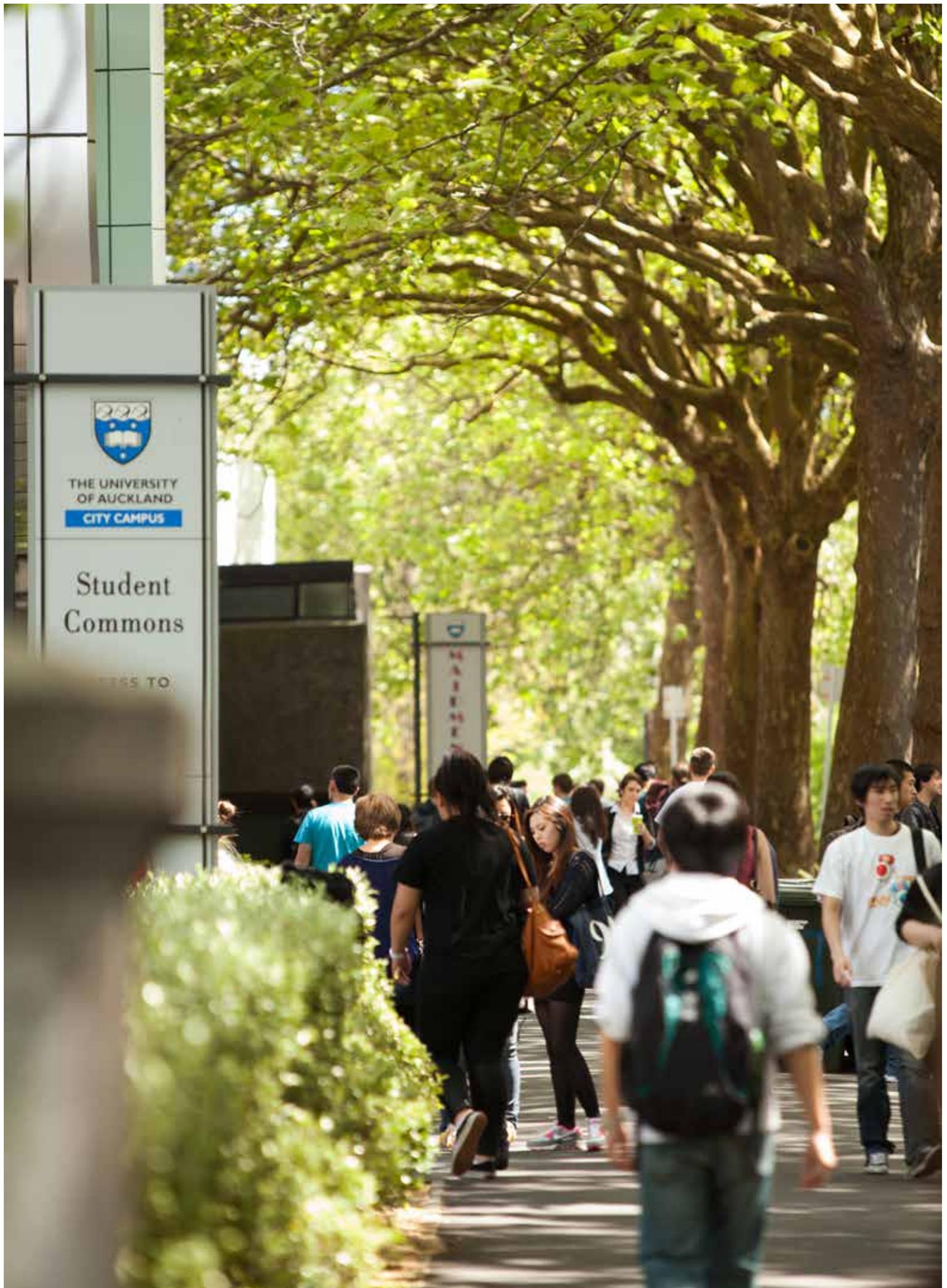
Starpath Research

We will continue to develop further research in a number of areas including:

- Using data in science education.
- Multivariate modelling of the effectiveness of the Starpath components in schools.
- Qualitative evaluation of the intervention across all 34 Phase 2 schools, starting with the Group A schools in 2013-2014 and carrying out monitoring in Group B schools.
- Continuing to analyse the tracking of students from Starpath schools through to tertiary education with the Ministry of Education.

Toolkit Development

We continue to initiate and develop the Starpath toolkit. Starpath has currently made and is trialling in the schools DVDs for demonstrating how to work with data in schools to assist school processes. We are also producing templates and other materials for school use.





Starpath

A University of Auckland Partnership for Excellence

Contact

Starpath Project

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