The Starpath Project
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Starpath Project
The University of Auckland
Epsom Campus
Faculty of Education
Private Bag 92019
Auckland 1142

starpath@auckland.ac.nz
www.starpath.auckland.ac.nz

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As the first navigators crossed the Pacific they followed the stars from island to island.

At the beginning of their journey, they found the star which marked their direction, and followed it until it sank towards the horizon.

Then they located the next star on the star path, and the next, and the next, until they reached their destination.

The Starpath Project for Tertiary Participation and Success was established in 2005 to address disparities in educational achievement for Māori and Pacific students and students from low socio-economic communities by:

• Raising the sights of students, teachers, advisors and parents.
• Addressing key ‘chokepoints’ or barriers to educational success.
• Opening up pathways to tertiary education for students with the potential to succeed, ensuring that they achieve their dreams and aspirations.

Starpath’s significant achievements to date include:

• Innovating the use of educational data to track students over time, and determine whether or not they are fulfilling their potential.
• Identifying ways in which talented young people from these groups may be steered away from pathways that lead to low income and insecure futures towards those that lead to higher education.
• Changing these patterns by developing research-led strategies to ensure that students can express their aspirations, identify pathways that lead to success and overcome barriers and risks to achieve their potential.

The Starpath name evokes the feat of the Polynesian star navigators in crossing the Pacific, their daring and determination and the navigation skills that carried them safely to their destination.

Starpath encourages students to follow their own path by identifying their goal, setting their direction and navigating their way with the aid of good data, sound advice, family and teacher support, and high quality teaching and learning.
Reports

From the Chair
This year has been another important year for Starpath with its expansion into an additional 34 secondary schools in the Auckland and Northland region. This expansion comes at a time when the Government has placed an even higher priority on addressing inequalities in educational outcomes and when it has started to look to alternatives to the public school system for solutions.

Our commitment is to work with the public school system to enhance processes of goal setting, tracking and monitoring student achievement, and to involve students, teachers and families in lifting academic performance. Our new partner schools have committed to the Starpath strategies because they have seen them work in the pilot schools and because they know they must bring about change. None of this is easy, but we are all involved because we know this work is essential to secure the future of many of our young people and of the country.

Our original aim was to increase the numbers and proportions of students in Starpath schools progressing into degree studies. Students from the five pilot schools are now entering tertiary institutions. Starpath has collaborated with the Ministry of Education and, with permission from the schools, we are now tracking these students into tertiary studies.

Starpath is required by its contract with the Crown to raise private funding to match half of the public funding received through the Tertiary Education Commission. The Board is pleased to report that, with a major donation from the ASB Community Trust’s Māori and Pacific Education Initiative, it has completed this task. We are very appreciative of the Trust’s confidence and continuing support. The other half of the funding depends on meeting key performance indicators agreed with the Tertiary Education Commission. Performance against the 2011 indicators was approved by the TEC in March 2012.

The Board would like to thank Mr Rob McIntosh, who has been its Ministry of Education representative for four years, and welcome his replacement, Anne Jackson. We also thank the Starpath Director, Professor Elizabeth McKinley, Professor Stuart McNaughton, who acted as Director during Professor McKinley’s research leave, the project team and school partners. Their work for Starpath has been unstinting.

Professor Raewyn Dalziel
Chair, Starpath Board

From the Director
Welcome to the Starpath Project Annual Report for 2011/2012. We are now 18 months into Phase Two and the Starpath partner school family has grown to 39 secondary schools. Fifteen of the schools are located in Northland and 24 in Auckland. We wish to thank all the schools for agreeing to partner with Starpath so that we can work together towards the important goal of raising student achievement. We feature some of the new schools later in this report.

There are no ‘silver bullets’ to raising student achievement - it requires relentless attention and persistence from the school leadership through to the classroom teachers over a long period of time. One of the roles of the Starpath team is to assist schools in keeping their focus on the goals, and to provide timely and useful feedback so they can improve their practice. While we work with schools mainly, carrying out evaluation research and professional development, Starpath has also turned its attention this year to how we can contribute to initial teacher education. One of the aims in moving forward in 2012/2013 will be how we can disseminate our work to beginning teachers and teachers not in our partner schools through the offering of a special topic masters course.

As the number of schools has increased, so has the number of staff working on Phase Two. We have eight full-time research and professional development staff who work on establishing and managing databases, and using them to carry out work on target setting, tracking and monitoring progress, academic counselling and parent-student-teacher meetings. In addition, Starpath has joined with the Woolf Fisher Research Centre and The University of Auckland Centre for Educational Leadership to carry out literacy and leadership work. This represents another eight part-time staff working specifically in this area. I would like to acknowledge the hard work of all the wider project team. I wish to thank the Deputy Director, Joy Eaton, who has the complex job of coordinating the team’s activities in all schools. Last, but not least, I would also like to thank Professor Stuart McNaughton for taking up the Director’s role in my absence last year.

Professor Elizabeth McKinley
Director, Starpath Project
Starpath helping to achieve equity with excellence in our schools

New Zealand’s education system has often been described from OECD reports as being high quality but low equity. But what does this mean? In essence, it means that New Zealand students, as a group, score well on international tests such as the Programme for International Student Assessment (PISA), but the disparity between the highest and the lowest scoring students is too wide.

While equality and equity are common words in education, we rarely interrogate what they mean for schools beyond measuring performance outcomes of groups of students and participation in some educational activities. Equality (often coupled with ‘of opportunity’) has come to mean avoiding discrimination and making sure all students are given the same opportunity as others. Equity, on the other hand, refers to performance, and takes the meaning of having the opportunity to attain the same results, usually through the unequal distribution of resources to ‘even up the playing field’. The relationship between equality and equity is that students cannot reach an outcome without having, at least, an opportunity to achieve it, but the reverse does not hold. One can have the opportunity but still not achieve the outcome. So given that schooling is mainly about providing learning opportunities to achieve an outcome (knowledge), how might we go about raising equality of outcomes for our students?

Firstly, student achievement is still strongly influenced by socio-cultural and socio-economic variables. What this means for the Starpath Project is that schools must see student learning as more than the individual student, and seek to engage the student’s family/whānau and wider community. There is little point in maximising student learning opportunities and support in school if those opportunities are not supported when they leave the school gates. Starpath’s parent-student-teacher conferences are a platform for the school to assist in helping parents to learn about their child’s school life, school assessment, student data, and the education system generally. Importantly they are an opportunity to help parents/whānau to learn how they can support their child’s learning at home. The conferences are also an important opportunity for the school to learn more about the student from the home. Parents will be more likely to support learning if they feel they are valued partners in their child’s learning, if they believe that education will make a difference to their children’s future, and if the child stands a good chance of doing well at school.

The second important point is that the national data we use to reveal differences in outcomes between groups of students does not allow us to assess the distribution of the opportunities that those students receive. But schools can assess this because they distribute many of the opportunities through their structures and practices. Schools need to interrogate the way that learning opportunities are distributed to students, and how the students are supported to achieve the learning outcomes to which they aspire. Once a school decides that advanced
course content aimed at university entrance is achievable for its students, then it is crucially important that the school (and its staff) provides both high expectations and a high level of learning support to these young people. When students are offered the opportunity to participate and engage in challenging and meaningful activities, they need support to perform these tasks successfully and have the opportunity to learn from experience. The implication of offering high challenges to students is that some of them will require more interactional support than others. To meet this end, the Woolf Fisher Research Centre is working with Starpath schools to support teachers in the development of skills to teach advanced literacy to all students across maths, English and science.

Starpath assumes that excellence can be achieved through equity (and vice versa). Achieving good average results across an entire education system with limited inequality between groups of students and between individual students is our aim. If we are to meet this it will require all of us to seriously reconsider how we allocate the resources at our disposal.
Scaling up: Sharing Starpath strategies for success

Over the past year the Starpath Project has welcomed a diverse range of new partner schools and continues to expand the work with existing schools to improve student outcomes.

After consulting with the Ministry of Education and the wider Starpath team, 36 new schools were invited to join the Project by letter and a follow-up visit. The team is delighted that 34 schools accepted the invitation, bringing the total number of partner schools in Starpath Phase Two to 39.

One of the criteria for inviting schools to join the Starpath programme was that they were working with any of the five original partner schools. Starpath is keen to expand the Data Utilisation, Academic Counselling and Target Setting (DUACTS) programme developed in Phase One of the project by working in clusters where schools can share information and support one another. For example, Massey High School was one of the original Starpath partner schools and is part of the West Auckland state secondary schools cluster called Achieving@Waitakere. Early in 2012 the Starpath Project invited all the Achieving@Waitakere cluster schools to join the Starpath programme. All accepted. Starpath also invited three secondary schools in Whangarei to form the basis of another such cluster.

The 39 schools display a wide range of characteristics. Fifteen of the schools are located north of Auckland, 15 in South Auckland, and nine in West Auckland. Our schools include two area schools, while 11 schools cater for students from Years 7-15. In eight schools, Māori form more than 50% of the students, while in another eight schools, Pacific Island students form more than 50% of the student population. In seven schools, Māori and Pacific Island students together form greater than 50% of the student population, and in one school, Asian students (Indian or Indo-Fijian) are over 50% of the population. The official roll of the smallest school is 111, while our largest school has 2339 students. This range of schools will test the ability of Starpath to effectively deliver the interventions developed during the pilot phase of the project.

Extending the programme from five to 39 schools has created logistical challenges, especially in managing the rollout of the DUA...
programme. In order to do this, the new schools (34 in total) have been divided into two groups, Group A and Group B. The Group A schools (16) were recruited into the programme in 2011, and are further advanced in initiating the interventions. The Group B schools (18) were recruited in early 2012, enabling the Starpath team to stagger the rollout. After learning how much work it took to get 16 new schools on the programme at the same time, the Group B schools have been brought into the Project in two subgroups. Nine of the Group B schools started in March 2012 and the other nine schools began in May/June of the same year.

Once schools have been identified, a letter is sent inviting them into the project. After the school indicates interest, an appointment is arranged with the principal to explain the aims and expectations of the Project. Starpath has developed a Memorandum of Understanding that outlines the project, including the Starpath interventions and the work of the Project partners, the Woolf Fisher Research Centre and The University of Auckland Centre for Educational Leadership, and provides clarity around the commitments and expectations of the school and the Project. This memorandum forms the basis of the partnership agreement between the two parties.

Once the partnership agreement is signed, the collection of baseline data begins. The baseline survey consists of a data audit to determine what data the school collects, where they are located and how they are used by school leaders and teachers. Interviews are also conducted with senior staff. This information is gathered, coded and analysed and written up into a short individual school report, which is then sent back to the school. Meetings are held with staff to discuss the report.

Student achievement data are then gathered and entered into a longitudinal database, to be used by the schools for analysis and inquiry. To support this foundation work, Starpath delivers professional development in data collection and management, tracking and monitoring strategies, setting targets, academic counselling and parent-student-teacher meetings. Data workshops have been held at The University of Auckland campuses in Auckland and Whangarei, as well professional development delivered in individual schools. The amount of travel by Starpath staff has increased significantly.

Partner schools have been keen to participate in the professional development provided by Starpath. All 16 Group A schools were able to send two or three people to the training sessions on database development, and although one school missed one workshop, they quickly took up the offer of back-up training. Starpath also opened the workshops to the original partner schools. They readily took up the offer to refresh their thinking or train staff who were new to their school.

A few of Starpath’s new partner schools in 2011 were involved in an eighteen month project funded by the Tertiary Education Commission and implemented by Team Solutions, aimed at enhancing Māori and Pacific student pathways into university. The project was based on Starpath research and strategies, so that some schools had prior experience of implementing parent-student-teacher conferences and academic counselling in the school. Becoming involved with Starpath fully enables the schools to underpin this work with quality and up-to-date data, and strategies to target set, and track and monitor student and school performance.

Individual schools have also requested support for academic counselling and parent-student-teacher conferencing. We have been able to respond with school visits and by providing a set of templates and checklists to support staff in this work. We are currently developing a DVD to provide examples of academic counselling sessions, and how schools can share their experiences of academic conversations with parents and students.

Each partner school appoints a Student Achievement Manager (SAM), as one of the more significant roles in the school. Most schools have allocated the role to one person, usually a deputy principal. However, an exciting development is that some schools are initiating a data team approach, with a number of staff sharing the responsibility of producing data for school and teacher discussion. A central task for the SAM, with the help of the Starpath team, has been the development of an evidential database (EDB) for the school. For most, this has involved finding data stored in a myriad of places around the school. Once the EDB is established, the SAMs are able to see the patterns of achievement in their schools and then use these to determine targets that are related to cohort characteristics. The process of gathering and cleaning data has involved schools releasing their SAM for a significant amount of time to attend professional development days and to work on data in their schools. Once this work is established, it should take less time to maintain if staff ensure that student data is entered directly onto the school management system.

Throughout this year, schools have been required to organise interviews, professional development sessions, and Starpath team visits. It has been vitally important for the success of these events that the schools have appointed a person to provide effective liaison with the Starpath team. These teachers have managed this huge task on top of their busy school responsibilities. It is a credit to them that Starpath’s relationships with schools have been very positive.

**Starpath partner schools in Phase Two**

**Northland**: Bay of Islands College, Bream Bay College, Dargaville High School, Kamo High School, Kaitaia College, Northland College, Otamatea High School, Rodney College, Ruawai College, Taipa Area School, Te Kura Takiwa o Manganiuoe/Broadwood Area School, Tikipunga High School, Whangarei Boys’ High School, Whangarei Girls’ High School, Whangaroa College

**Auckland**: Alfriston College, Aorere College, Edgewater College, Green Bay High School, Henderson High School, James Cook High School, Kelston Boys’ High School, Kelston Girls’ College, Liston College, Mangere College, Manurewa College, Massey High School, Onehunga High School, Otahuhu College, Pakuranga High School, Papatoetoe High School, Sir Edmund Hillary Collegiate, St Dominics College, Southern Cross Campus: Senior School, Tamaki College, Tāngaroa College, Rosehill College, Rutherford College, Waitakere College
Otahuhu College

With a thousand Pacific Island students, Otahuhu College in South Auckland has the largest Pacific student population in the country. For many students at the decile 1 school, the biggest educational challenges happen outside the school gates. “Raising achievement is our priority and our biggest challenge,” says principal Gil Laurenson. Only 32 per cent of the school’s Year 11 students passed NCEA Level 1 in 2010, compared to 75 per cent nationally. By the end of year 12, this figure was up to 72 per cent. “We want all our students to go on to meaningful courses or real employment,” says Gil. “In particular we want 40% of each cohort that leaves Otahuhu College to complete degree level qualifications and get to decision-making positions in our society.”

Before becoming a Starpath partner school in May 2011, Otahuhu College had already started to implement similar strategies in their school. “We had already started down the academic counselling and three-way conference pathway with our Year 9 students so the opportunity to become involved with Starpath came at exactly the right time,” says Gil. “We know how important it is to engage with families to support students’ learning and achievement so it was a natural fit.”

As part of Starpath’s Data Utilisation, Academic Counselling and Target Setting programme, the school implemented their first whole-school parent-student-teacher conferences earlier this year. “Our experience with Year 9 has meant that going whole-school was relatively straightforward,” says Gil. “To get an 88% turnout of families was stunning and a real highlight. Staff have taken the new style of conferencing on board totally and have worked extremely hard to make it successful.”

As well as being a Starpath partner school, Otahuhu College has recently introduced a Health Science Academy in collaboration with the Pasifika Medical Association. The Academy is aiming to prepare 25 Year 13 Pacific Island students each year to pursue university study and careers in the area of health science.
Ruawai College

Ruawai College is located 30km south of Dargaville in Northland and is one of Starpath’s smaller, more rural schools. Approximately 85% of the 200 students travel to school by bus, and for some, the journey takes up to an hour each day.

Principal Stephen Fordyce heard about the Starpath Project from a Tai Tokerau colleague and jumped at the chance to become a partner school in 2011. “I wanted our students to benefit from the best educational opportunities on offer, despite our small size and location,” he says.

Over the past year Ruawai College has made significant changes as the staff develop their Data Utilisation, Academic Counselling and Target Setting programme. “Introducing our new SMS system and receiving support to rationalise our archived student achievement data have been important developments this year,” says Stephen. “And while we were engaged in academic counselling prior to Starpath, our teachers have increased their confidence and knowledge in this area through access to Starpath’s expertise.”

The school conducted their first parent-student-teacher conferences with the senior school students in April and achieved an exceptional 100% parental attendance. “It was an obvious highlight,” reflects Stephen. “Only two families weren’t able to attend and we managed to follow these up in the days following.”

The school is also transforming their vertical form teachers into “learning advisers” to recognise the significant role they play in students’ lives at the school. “We wanted to distinguish the role from that of a subject teacher or registration administrator,” says Stephen. “The learning adviser will be the key member of staff involved in the conferences and we are intending to change our timetable structure to incorporate two 50 minute learning advisory sessions each week.”

The school is continuing to expand its expertise in data use and target setting now that it has more robust and systematic data collection. The staff hope to get feedback from students, particularly in relation to learning advisories, course construction, goal setting, teacher evaluation and the school’s culture for learning.
Breaking down the barriers between home and school

Parent-student-teacher conferences are an integral part of Starpath’s Data Utilisation, Academic Counselling and Target Setting programme. As more schools begin to implement the programme in Phase Two, many are experiencing an unprecedented level of parental engagement.

Developed by Massey High School and evaluated by Starpath researchers in Phase One, parent-student-teacher conferences have transformed the traditional parent-teacher interviews in many partner schools. Instead of a five minute discussion with each of their child’s subject teachers, parents are provided with set appointment times to come to the school with their child and meet with one teacher for a 20 to 30 minute discussion. Teachers use student data and reports from individual subject teachers to have a three-way conversation about the students’ overall goals, specific achievement targets, current performance and how they can work together at home and at school to support learning and achievement.

Every potential barrier to parents attending the conference is considered and addressed by each school. A formal letter is sent to parents by the principal to emphasise the importance of attending their child’s academic “health check”. Many offer crèches, car washes, NCEA information sessions and career centres. Each partner school implements their conferences differently, depending on the size of the school and the community it serves.

All schools that have implemented conferences have reported huge increases in parental attendance. Many have achieved shifts from as low as 15% parental attendance to more than 80% while others have reported between 60% and 80%. Significantly for schools that have implemented the conferences over a number of years, the level of parental attendance has remained consistent or improved.

“97% of our parents who completed a survey after our conference held earlier this year said they felt it was an improvement on the previous report meetings run by the school. When asked whether they felt the meeting helped them to understand what their child needed to be more successful at school, the response was 100% positive.” Ruth Luketina, Head of Careers and Transition, Mangere College.

“I have never known one single initiative to have such a positive outcome. When we interviewed staff members about what they think makes Manurewa High School successful, the development of our student achievement conferences is consistently at the top of the list.” Salvatore Garguilo, Principal, Manurewa High School.

“We have had ERO with us this week and the Starpath initiative has been much discussed. They are very impressed with the impact this initiative has had in a short time period. We are looking forward to continuing the gains.” Patrick Drumm, Principal, Aorere College.

“Previously at the school’s parent-teacher interviews attendance had been between 9% and 13%. A staggering 76% of parents attended our first conferences in 2007 and we continue to have similar results year on year.” Sam Smith, Assistant Principal, Massey High School.
Growing strategic leadership for school improvement

Starpath Project partner The University of Auckland Centre for Educational Leadership is working with the original partner schools to grow strategic leadership and tackle difficult conversations.

The University of Auckland Centre for Educational Leadership has joined the Starpath Project Team to offer leadership support to participating schools. Centre staff began their work by undertaking case studies at the original five Starpath schools. These cases were based on interviews with the principal and senior leadership team and three middle leaders (Heads of Department of science, maths and English). The schools’ strategic and annual plans were also reviewed and some audio recordings of departmental meetings were made.

While there were differences between the schools, some common themes emerged about what works more and less well with respect to Starpath initiatives. Not unexpectedly, given the Starpath emphasis, schools tended to be successful in defining clear goals and data-based targets and these were carefully tracked. Their leaders were highly committed to raising Māori (and, where applicable, Pacific) student achievement. Middle leaders saw it as their responsibility to develop appropriate pathways and courses, and were strongly committed to improving outcomes, particularly for target
groups. All schools attempted to embed professional learning into day-to-day routines, though the success of this varied.

On the other hand, schools tended to have too many initiatives and these were frequently not sufficiently coordinated. This is important, as one of the key findings of the school improvement literature is the need for a relentless focus on a few key goals. In a secondary setting, since it is largely middle leaders who lead the focus on teaching and learning, it is important that they are able to work intensively with their teams on a few key goals. Achieving this focus is a huge challenge for school leaders, when there are numerous external and internal pressures on them to be involved in multiple initiatives.

Another key finding was the need to support leaders to deal with challenging performance issues. Middle leaders, in particular, are typically promoted to their positions with little leadership training and do not always feel confident about tackling tough issues with staff. The ability to tackle such issues is, however, critical to reducing undesirable variation in teaching quality and achieving improvement goals.

In summary, the Centre for Educational Leadership learned that schools need some further support to ensure that improvement strategies are coordinated, well focussed and not unduly burdensome on staff. Some senior and middle leaders are also seeking help with addressing teaching problems in ways that are both collaborative and effective. Centre staff have already engaged some partner schools in professional learning about how to address concerns about teaching quality.

**Principal’s perspective: Salvatore Gargiulo, Manurewa High School**

“While the analysis of data and classroom observations is essential for developing and maintaining classroom performance, the senior leadership team as well as the Heads of Departments involved in the literacy project, identified the need for professional development in having difficult conversations with staff whose performance was giving concern.

So far we have had two workshops. This first involved learning about the underlying values and principles involved in an ‘Open to Learning Conversation’ and identifying the key elements of such conversations. The use of modelling and role play also set us up to undertake such conversations ourselves. After the first workshop, we had the chance to use the strategies.

In the second workshop we reflected on these conversations, did some more practice, got feedback and reinforced the importance of some key strategies like pausing and paraphrasing. I am convinced that the skills learned have had a significant effect on our leadership.”

**Moving forward**

Future workshops will provide support to all Starpath schools on this skill and will also emphasise the need to be more strategic in approach in order to gain shifts in school performance.

Over the next year The University of Auckland Centre for Educational Leadership will offer all Starpath schools:

- Workshops for senior leaders in order to help them to establish a coordinated and focused approach to improvement. The workshops will explain why a coordinated approach is important, the pressures that make it so difficult to achieve, and how to avoid the proliferation of improvement strategies. The workshop will enable senior leadership teams to evaluate how they manage these pressures, and the extent to which their Starpath work is appropriately focused and coordinated across their school.

- Workshops for senior and middle leaders, which enable them to analyse their current approach to tackling difficult performance issues and to practise effective and collaborative ways of resolving them. These workshops will be grounded in real school situations and offer participants the opportunity to reflect on their current leadership and evaluate the effectiveness of alternative approaches.
Literacy has a significant influence on achievement in all subject areas. As students advance through secondary school, the literacy demands of different subjects become more complex and specialised. Profiling undertaken by the Woolf Fisher Research Centre has identified that gaps in students’ subject literacy are a significant barrier to achievement at NCEA Levels 2 and 3 and University Entrance.

In the latter half of 2011, the Woolf Fisher Research Centre completed a profiling phase of the five original Starpath partner schools. This involved investigating patterns of achievement in specific achievement standards at NCEA Levels 1-3. Each standard was identified by subject experts as having a high subject literacy component, and providing a pathway to further study in that subject. These standards (Subject Literacy Achievement Standards) are used by the Woolf Fisher Research Centre as indicators of students’ literacy in English, mathematics and science. The total set of Subject Literacy Achievement Standards is made up of two or three achievement standards for each of the three subjects at each of the three levels of NCEA.

In the majority of schools, both achievement and participation levels in these Subject Literacy Achievement Standards were lower than for schools nationally, and these levels had not changed over time. This picture is in marked contrast with the pattern of achievement in NCEA attainment rates overall (particularly at Levels 1 and 2), which has generally improved over the past few years so that they now match or are close to national attainment rates.

Teachers’ knowledge and practices were also investigated to see how these might contribute to current patterns of student achievement and vary across and within schools.

Findings from the profiling phase informed targeted professional development in each of the five partner schools in 2012. The first strand of professional development, which is tailored to the particular needs of each school,
involves school and subject leaders working with Woolf Fisher Research Centre staff over three half-day sessions. The second strand is focused on the specialised literacy demands of English, mathematics and science, and involves subject-based groupings of department leaders from across the five schools.

The team has worked closely with the Centre for Educational Leadership to plan and deliver professional development to middle leaders, the aim being to develop their knowledge of effective literacy instruction and how to lead this effectively in their departments.

Principal’s perspective: Bruce Ritchie, Massey High School

“The Government has set a target of 85% of students leaving school with NCEA Level 2 by 2017. This is a big but achievable goal, provided the resources can be assigned to support the work required to reach this target.

Much has been written about literacy and numeracy, particularly up to and including Year 11 or NCEA Level 1 where both are prerequisites. However there is no such prerequisite for NCEA Levels 2 or 3, although there is for University Entrance, even though high levels of literacy and numeracy are implicit in achieving at this level. This is why Massey High School is very pleased to be given this opportunity to work in partnership with the Woolf Fisher Research Centre to raise subject literacy standards for students in our senior school, which is new territory for this work.

The English, science and mathematics departments are the largest at Massey High School. It is appropriate the work is done in these areas first, so the learning can be transferred to other learning areas. The two meetings we have had so far with the Woolf Fisher Research Centre and the Centre for Educational Leadership following their data-collecting exercise have been very interesting, informative and productive.

The Heads of Departments involved have been very complimentary, and we now look forward to three teachers from each of these departments meeting with teachers from Starpath’s original partner schools to share further learning and develop their professional knowledge and skills. The ultimate beneficiaries, the students, will be well served by this professional learning and in my view this work, which is targeting the higher stakes area of achievement, is absolutely necessary to achieve the Government’s goal.”

Moving forward

Future work with Group A and Group B Starpath partner schools will involve the Woolf Fisher Research Centre engaging in detailed research, design and development work to build more effective instruction in literacy across the content areas. This work will use the overarching principles and methods of the Learning Schools Model for developing effective clusters of schools.

Within this model there are three phases. The first is the profiling of learning, instruction and organisational features to identify areas for problem solving and change. In addition, staff will observe lessons in these content areas at Year 12 to understand and provide feedback about instructional properties relating to content area literacy. Hypotheses developed through evidence-based problem solving in professional learning communities within each school will be used to design the most appropriate professional development in the second phase. Ongoing data discussions will test the effectiveness of the changes in teaching practices on valued student outcomes, and in the third phase will be used to sustain the content of the changes in the schools’ programmes.
Research summaries

Science pathways project
In December 2011, Starpath initiated a discussion with other science education researchers about science pathways, a key research strand, to explore and identify areas for research that will help improve Māori and Pacific students’ participation, access and opportunities to learn science and progress into science degree courses at university.

Secondary analysis of students’ course handbooks on science subject choices and pathways were carried out in the early part of 2012 from a sample of Starpath partner schools, which led to the identification of current science course combinations, mainly classified as traditional, alternative or innovative. From this course typology, an exploratory case study was designed to investigate how grouping students in particular science courses correlates with their science performance outcomes.

Two schools, one with traditional pathway structures of academic and alternative (non-academic) pathways, and the other offering an innovative Health Science Academy, were selected for more in-depth study. Ongoing research work includes compiling NCEA data from the NZQA website on individual student achievement by standards for both schools, and school-based interviews/conversations with heads of the science department. Dr Mark Gan and Professor Elizabeth McKinley are initiating this work.

A meeting with an advisory group of science education researchers and practitioners has been held. This meeting generated further ideas for exploration, such as the potential uses of a diagnostic assessment tool Science: Thinking with Evidence, the only standardised test developed for use in Years 7-10 in New Zealand schools.

Evaluating interventions
Phase Two of the Starpath Project is made up of distinct but inter-related intervention components that have been previously identified as important for improving achievement outcomes for our targeted groups – Māori & Pacific students, and students from low socio-economic backgrounds. These Phase Two interventions are the Data Utilisation Academic Counselling and Target Setting (DUACTS) programme, developed in Starpath Phase One, and the literacy and leadership work...
of the Woolf Fisher Research Centre and The University of Auckland Centre for Educational Leadership.

With this collaboration in Phase Two, Starpath has the opportunity to examine how the different components of the intervention contribute and interact with each other to improve student outcomes. For example, we might learn that school leadership needs to be strong if the literacy and DUACTS components of the intervention are to work effectively to raise student achievement. Alternatively, we might learn that the literacy component of the intervention is effective in improving achievement regardless of what happens with the other two components of the intervention. Integral to this work, and an important challenge to the methodology, will be how Starpath determines ‘Māori success as Māori’.

The purpose of this work is to help the Starpath team and schools strengthen their collective knowledge of how to improve student outcomes, and will be used to inform each stage of the intervention. Initial work is being undertaken, led by Dr Mei Lai, to develop ways of measuring each component of the intervention.

Masters research gives voice to students’ experience of academic counselling

Rochelle Telfer, Senior Academic Dean at Tikipunga High School, recently completed her Woolf Fisher Lead Teachers Masters Scholarship research, which investigated Year 13 students’ experiences and perceptions of the school’s academic counselling programme. This is where students meet with their whānau teachers to develop personal learning plans to achieve their personal, educational and career goals, and then monitor progress.

Rochelle’s key findings are as follows.

- Students consider that academic counselling supports them to set and achieve their goals.
- Students stress the importance of strong relationships with their whānau teachers. In particular, they want a teacher who cares about their progress, acknowledges and values their culture, and is genuinely interested in them as a person. But the relationship by itself is not enough.
- It is important that students feel confident about their whānau teacher’s knowledge of NCEA and University Entrance requirements. This is significant because many of the students rely on the teacher’s knowledge and expertise to help develop their plan and work towards their goals.
- Feedback regarding the “next steps” is critical for the meetings to be effective.

Rochelle concluded that there are two implications for schools. Firstly, academic counsellors in schools need to meet regularly with students to provide explicit feedback. This is particularly important for students who are struggling academically or those who are unsure of what is needed to achieve the outcomes they want. And secondly, there needs to be more explicit teaching of goal setting strategies for both students and teachers.

Building effective literacy practices in secondary schools

Starpath Project partner, The Woolf Fisher Research Centre, recently completed a research and development project (reported in the 2010 Annual Report) in collaboration with seven secondary schools on the West Coast of the South Island. The aim of the project was to improve reading comprehension in Years 9 and 10 and increase the proportion of students achieving NCEA Level 1 at Year 11.

The intervention successfully improved achievement in literacy in Years 9 and 10, and the attainment of NCEA 1 certificates, including:

- Significantly more students attained NCEA Level 1 certificates at Year 11 as a result of the intervention. At the end of the intervention, the proportion of students achieving NCEA Level 1 in Year 11 was the same as the national norms. In the four years prior to the intervention, the proportion of students attaining NCEA Level 1 in Year 11 was 5% - 13% lower than national norms.
- Students gained approximately one curriculum sublevel in reading comprehension more than the expected achievement levels had the intervention not occurred, with effect sizes that were nearly three times those internationally reported for interventions of similar length.
- Student attitudes towards reading over time were a significant predictor of reading achievement, with highly positive attitudes being associated with scores of about one curriculum sublevel higher than students with highly negative attitudes.
- Significant improvements in achievement for Māori students in both reading comprehension and in the attainment of Level 1 NCEA certificates at Year 11. Māori students’ attainment of NCEA Level 1 rose to 54% from a pre-intervention rate of 38%, close to national rates, and higher than national Māori achievement rates.

The results indicate that a targeted literacy intervention can improve reading comprehension for all students and have a generalised effect on achievement across the curriculum at NCEA level 1. Improvements in achievement can be attained if an intervention uses collaborative data analysis to inform changes in teaching practice based on local need.

The overall evidence from this research and development has contributed directly to the design for the literacy interventions currently being implemented by the Woolf Fisher Research Centre in Phase Two of the Starpath Project.
The Ministry of Education has supplied tertiary enrolment data for 11,516 students who left the original Starpath partner schools for the period 2003-2010. The data were examined to find the proportion of leavers who enrolled in degree-level study, other tertiary study or who did not enrol in any form of tertiary study in the years immediately after leaving school.

Across all five partner schools, the pattern of enrolment in degree-level study prior to involvement with Starpath was between 10% and 20% of leavers, but this appeared to be steadily increasing towards 30% since their involvement in the Project. At the same time, there is a small decrease in the proportion of students who are not engaged in any form of tertiary education (from an average of 57% to 50%).

There is a trend for about 4.5% of students to take a gap year immediately after leaving school, and when these students are added back in with their leaving cohort, there is a small increase in the proportion of students in degree-level study, and a similar drop in the number not engaged in any form of tertiary education.

Tracking students from Starpath’s partner schools into tertiary study will continue for the rest of Phase 2. With the next set of data, Starpath researchers will seek to discover whether the students successfully complete their first year and enrol in a second year of university study. The results from the first cohort are promising.

A key goal for Starpath is to increase the number of students from Māori, Pacific and low socio-economic backgrounds in tertiary study. In a first for the Project, Starpath is now tracking students from the five original partner schools into tertiary education.
Minister of Education launches Samoan translation of popular Starpath book

The Samoan translation of Starpath’s popular book Understanding NCEA: A relatively short and very useful guide for secondary school students and their parents was officially launched by the Honourable Hekia Parata, Minister of Education and Pacific Island Affairs, to mark the start of Samoan language week in May. Within a month of launching, Malamalama i le NCEA was reprinted due to high demand from school communities and government agencies.

Over a hundred students, parents and members of the education community attended the national launch of the Samoan translation held at Porirua College in Wellington. In her speech at the event, Hekia Parata called the book a taonga and praised it for helping Samoan parents and students understand the importance of planning their pathways through NCEA, as well as providing the practical information needed to navigate their way to their goals and aspirations.

The national launch was followed by an Auckland event hosted by Mangere College, a Starpath partner school in South Auckland. Principal John Heyes said it was particularly fitting for the school to host the event, as the book’s translator Faimai Pisu Tuimauga and guest speaker, Labour MP for Mangere, Su’a William Sio, both have children attending the school. “It is critical that our Samoan students and their parents are fully able to understand the complexities of the palagi world,” said John. “We know that NCEA is complex to understand for those who speak English as a first language. This book is just one way of assisting our Pacific community to fully understand what this academic world means for their children and their futures.”

The book translation is a result of research undertaken by Professor Elizabeth McKinley and Dr Irena Madjar during Phase One of the Starpath Project. Often requiring interpreters when interviewing parents of Pacific students, they quickly learned that to have an impact on student achievement, they needed to be able to talk to parents in their own language. The decision to translate the resource into Samoan language was taken because this is the third most commonly spoken language in New Zealand and the second most common in Auckland.

Both Professor McKinley and Dr Madjar credit the success of the translation to the commitment and dedication of Faimai Pisu Tuimauga and members of the Samoan community who worked tirelessly to ensure the quality and readability of the translation.

New DVD resource supports academic counselling

Academic counselling is one of Starpath’s proven strategies that enable schools to effectively support students’ academic progress along pathways to meaningful qualifications. As an integral part of the Data Utilisation, Academic Counselling and Target Setting programme, academic counselling provides the opportunity for students to meet with trained teachers or deans two to three times each year to review their academic progress, goals and plans and the strategies required to achieve them.

A new DVD resource has been developed to provide valuable advice and guidance for Starpath partner schools new to academic counselling in Phase Two. Many of the schools that joined Starpath in 2011 have started to design and implement programmes in their school. The structure of academic counselling varies and is unique to the context of each partner school:

• The design of academic counselling programmes depends on timetabling, staff capacity and the number of students at each school.
• Some schools are starting their academic counselling programme across the whole school while others are starting with one Year level or in the senior school.
• Academic counsellors have reported that they can already see the benefits to students, including increased self-management, improved learning-focused relationships, and solid documentation of student progress and achievement.
• A number of the schools have already sought and received Starpath feedback on their programmes.
• Academic counselling has a significant impact on the success of parent-student-teacher conferences, because there are no surprises. The teacher and student have already talked through any issues, and students have already started to set their academic goals and better understand what is required to achieve them.

Teachers or deans involved as academic counsellors require an in-depth knowledge of NCEA, University Entrance requirements, the students and their backgrounds, as well as the skills to effectively engage students in conversations that support their academic progress and achievement. Featuring a series of short interviews with teachers and students, as well as visual examples of academic counselling in practice, the DVD can be used as an in-school professional development tool and provides a useful starting point for schools to plan an effective academic counselling programme.
Data systems in secondary schools: The state of play

While teachers in most secondary schools in New Zealand recognise the importance of the student management system (SMS) for compiling and organising student achievement data, actually gathering and then using data appears to be less consistently carried out. Secondary schools have traditionally collected a wide range of data - student demographics, attainment results, extra-curricular records, class reports, and so on. These data can be stored in the school’s SMS, which facilitates collection, retrieval and organising of large amounts of student information. Despite the importance of data use for accountability purposes and its pivotal influence on changing classroom practices, there is little research on what kinds of data schools collect, and what supports are in place to help teachers to access and use student achievement data.

Over the past year, the Starpath Project has examined the data collection and utilisation of the 16 Group A schools in Phase Two as their involvement with the project began. A key component of the Data Utilisation, Academic Counselling and Target Setting (DUACTS) programme is the development of a longitudinal evidential database, which is used to provide a comprehensive picture of what learning looks like at each school. In order to build the database for a school, it is important for Starpath to gain a thorough understanding of how each school assesses student learning, how the results of those assessments are stored, and what is done with achievement data by way of analysis, interpretation and action. Consequently, a data audit is conducted in each new Starpath partner school to provide a platform for launching the DUACTS programme.

At the end of 2011, each of the 16 new partner schools was assessed on five features: their student management system, the types of data held by the school, the state of the data, the infrastructure to support teachers working with data, and data generation and use. Through a series of short half-day meetings with key personnel in each school, Starpath researchers identify what data the school holds, and where, with respect to four data types – demographic, student achievement, perceptions, and school process data. These data were used to create the comprehensive longitudinal evidential database that the schools started using in early 2012.

In general, it was found that the 16 schools had a SMS in place that focused on organising and storing student demographic and achievement data. However, data storage, management and use in schools varied tremendously from school to school. Instead of a staff member being able to go to the SMS and download all the data that the school had concerning a student’s achievement, data were found in many places – in paper files, on individual staff computers, on protected drives on the school’s server, and on off-site systems (eg, e-asTTle website, NZQA website). This was especially true for achievement data up to and including Year 10, where the data held about a Year 9 student in English were not necessarily connected with their achievements in other learning areas.

The nearest that schools came to collating much of the data in one place was in the reports to parents. These mainly summarised students’ learning to date and sometimes contained attendance data. For Year 11 onward NCEA results took priority and systems were in place to ensure that the monthly reporting of credits earned to NZQA could be completed seamlessly and reasonably efficiently. The compartmentalised nature of the data silos reflects the way that secondary schools are organised by subject. Even then, subject data are not systematically stored in one location but in many locations.

The downside to students’ achievement data being located in silos rather than in a SMS is the fragmented opportunities for teachers and leaders to garner a comprehensive picture of student achievement in the school, or for any individual student.

There is a need to ensure that all achievement data are systematically entered in the SMS, and that good use is made of those data. Without a meaningful purpose, it is difficult for schools to get buy-in from teachers to enter the data in a timely manner. A more concerted effort is required to communicate the urgency of accurate and timely data entry into the SMS, and the need for a comprehensive assessment policy that is shared and practised across departments. Work needs to be done to assist staff to become regular and confident users of the SMS, and then in building competencies in data literacy to better use the reports that are generated.

Future developments in the Starpath Project will see the expansion of the number of schools. By the end of 2012, Starpath will have completed a data audit of 34 secondary schools. Furthermore, we intend to expand the data audit inventory to include more data features in determining how well a school is using data to inform and inquire into teaching practice.
Books


Journal Publications


Conference presentations


Ministerial meetings and visits

- Lesley Longstone and Bruce Adin, Ministry of Education, 13 March 2012. Met with Professor Raewyn Dalziel, Distinguished Professor Dame Anne Salmond, and Professor Elizabeth McKinley to brief the new Secretary for Education about Starpath research and outcomes.

- Peter Walsh, Kevin Moar and Holly Godsmark, Ministry of Education, 3 May 2012. Met with Professor Elizabeth McKinley, Joy Eaton and Dr Earl Irving to discuss data work in Starpath schools.

- Fuimaono Tuiasau, Vui Mark Gosche, Ministry of Pacific Island Affairs, 21 May 2012. Met with Joy Eaton via Skype to discuss Starpath research and outcomes.

- Nanaia Mahuta, MP for Hauraki-Waikato, 29 June 2012. Met with Associate Professor Graeme Aitken, Professor Raewyn Dalziel, and Professor Elizabeth McKinley to discuss Starpath research and outcomes.

Other presentations


Other meetings and key stakeholder visits


- ASB Community Trust Māori and Pacific Education Initiative Event, 4 May 2012, Auckland. Professor Raewyn Dalziel and Professor Elizabeth McKinley invited to attend the formal announcement of funding for stage two.

- Tom Robson, New Zealand Qualifications Authority, 19 June 2012. Met with Joy Eaton to discuss Starpath implementation, DUACTS strategies and key outcomes.

Starpath Events

- Starpath partner schools principals day, Kohia Education Centre, 13 July 2011. Attended by principals from each of the five original Starpath partner schools and Phase Two (Group A) partner schools.

- Starpath presentation to The University of Auckland, 9 February 2012. Attended by invited guests from The University of Auckland. Hosted by the Dean of Education, Associate Professor Graeme Aitken, and Professor Raewyn Dalziel.

- Malamalama i le NCEA national book launch, Porirua College, 28 May 2012. Attended by over a hundred students, educators and members of the community including the Honourable Hekia Parata, Minister of Education and Pacific Island Affairs.

- Malamalama i le NCEA Auckland book launch, Mangere College, 19 June 2012. Attended by members of the community including Labour MP Su’a William Sio and Principal John Heyes.

- Starpath principals day, Ellerslie Events Centre, 26 June 2012. Attended by principals from each of the five original Starpath partner schools and Phase Two (Group A and Group B) partner schools. Guest speaker: Professor Saville Kushner.

Starpath lecture series

## Project media coverage

(1 July 2011 - 30 June 2012)

### Media coverage following the release about the growth of the Starpath Project and ASB Community Trust funding.

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<th>Media</th>
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<td>Northland Age</td>
<td>31 January 2012</td>
<td>Starpath education project expands</td>
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<td>Whangarei Leader</td>
<td>7 February 2012</td>
<td>Education project making a difference</td>
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<tr>
<td>Dargaville and Districts News</td>
<td>8 February 2012</td>
<td>Starpath growing rapidly in growth</td>
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<td>Kaipara Lifestyler</td>
<td>15 February 2012</td>
<td>Starpath in Kaipara</td>
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<td>Radio 531 Pi</td>
<td>29 February 2012</td>
<td>Professor Liz McKinley interviewed for morning news report</td>
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<td>Manukau Courier</td>
<td>1 March 2012</td>
<td>Schools trailblaze new project</td>
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<tr>
<td>Te Kuaka, Faculty of Education Magazine</td>
<td>Issue 1, May 2012</td>
<td>News in brief: ASB Community Trust backs Starpath Project</td>
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### General media coverage about the Starpath Project:

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<tr>
<th>Media</th>
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<tr>
<td>Te Kuaka, Faculty of Education Magazine</td>
<td>Issue 2, July 2011</td>
<td>• Breaking down the barriers: meet our newest professor. Article about Elizabeth McKinley's promotion to Professor of Māori Education at The University of Auckland.</td>
</tr>
<tr>
<td>Te Kuaka, Faculty of Education Magazine</td>
<td>Issue 3, November 2011</td>
<td>• The great decile debate. A selection of educators provide their perspective on school deciles. Featuring opinions from Professor Stuart McNaughton (Director, Woolf Fisher Research Centre), Joy Eaton (Starpath Deputy Director), Salvatore Garguilo (Principal, Manurewa High School) and Peter Gall, (Principal Papatoetoe High School).</td>
</tr>
<tr>
<td>New Zealand Herald</td>
<td>10 February 2012</td>
<td>• Divided Auckland: Schools reaching out to the vulnerable. Professor Stuart McNaughton comments about the global report that has found children’s reading abilities are more closely tied to their socio-economic backgrounds in New Zealand than in any other country.</td>
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<tr>
<td>Education Review Magazine, Postgraduate and Research Issue</td>
<td>1 May 2012</td>
<td>• The Starpath Project. Feature article about the Project and Starpath strategies for success quoting Professor Liz McKinley.</td>
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<tr>
<td>Te Kuaka, Faculty of Education Magazine</td>
<td>Issue 1, May 2012</td>
<td>• Giving voice to students. Article about Rochelle Telfer’s masters research investigating students’ experience of academic counselling at Tikipunga High School.</td>
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<tr>
<td>Ingenio: The University of Auckland Alumni Magazine</td>
<td>1 May 2012</td>
<td>• Taking Issue. Distinguished Professor Dame Anne Salmond writes about Māori, Pacific student achievement and how Starpath is working with schools to transform educational outcomes.</td>
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<tr>
<td>Weekend Herald</td>
<td>26 May 2012</td>
<td>• School of hard knocks: Comments from Gil Laurensen (Principal, Otahuhu College) and Professor Elizabeth McKinley in an article about what South Auckland schools are doing effectively to improve student achievement.</td>
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<td>Samoa Times</td>
<td>5 June 2012</td>
<td>• Malamalama i le NCEA. Article about the release of Starpath’s new book, written by Dr Irena Madjar and Professor Liz McKinley.</td>
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<tr>
<td>New Zealand Herald</td>
<td>5 June 2012</td>
<td>• Easy path for learners backfires. Mentors strive to prevent Pacific kids being steered into soft subjects that lead nowhere. Professor Elizabeth McKinley comments about Starpath’s strategies for success.</td>
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<td>New Zealand Herald</td>
<td>11 June 2012</td>
<td>• Students put in straightjackets. Tapu Misa opinion piece mentions Starpath’s research from Phase One.</td>
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<tr>
<td>Radio 531pi</td>
<td>28 June 2012</td>
<td>• Labour MP Su’a William Sio commented during an interview that colleges offering courses in Samoan have snapped up copies of Malamalama i le NCEA.</td>
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Future directions

The Starpath Project in the year ahead

• The Data Utilisation, Academic Counselling and Target Setting programme will be introduced to 18 new partner schools (Group B), including:
  • Professional development in target setting, monitoring and tracking, academic counselling and parent-student-teacher meetings.
  • Finalising the Starpath strategies for success guidelines and the academic counselling DVD.
  • Working with schools to develop their data inquiry skills to target more equitable outcomes for their students.
• Literacy and leadership programmes are to be implemented in 16 new partner schools (Group A).
• Developing working clusters to enhance collaboration and knowledge sharing among Starpath partner schools.

• Developing wiki spaces for more effective communication with partner schools.

• Furthering research in the following areas:
  • Developing research on using data in science education in our schools.
  • Modelling the effectiveness of the Starpath components in schools (Data Utilisation, Academic Counselling and Target Setting initiative, literacy and leadership).
  • Developing measures of equity that schools can use as part of self-evaluating their structures and practices to promote more equitable learning.
  • Continuing the analysis of tracking students through to tertiary with the Ministry of Education.