



Starpath newsletter

The Starpath Project For Tertiary Participation and Success | Issue 10 | May 2015 | www.starpath.auckland.ac.nz

Meet Sam - the original SAM



Massey High School Deputy Principal Sam Smith is a bit of a guru when it comes to managing data in schools.

Sam was, ironically, the first SAM or Starpath 'Student Achievement Manager'. SAMs like Sam are the backbone of the Starpath Project. They oversee the collection and analysis of data within a school and set the targets to enable tracking and monitoring to occur.

Sam is a maths teacher who completed her PHD with the Starpath Project. She worked closely with Starpath researchers in the Project's formative years, with the concept of SAMs adapted from Sam's work analysing student data and results at Massey High School.

Sam has been a Student Achievement Manager now for eight years, and shares some of her experiences and insights for other teachers juggling this important role.

Why is a Student Achievement Manager important?

The SAM is very important because he/she allows each student's progress and attainment to be tracked over time. If things are not tracking so well then the SAM can alert staff, students and parents and then introduce some support or an intervention that will address the problem.

What are the biggest challenges a Student Achievement Manager faces?

Encouraging staff to complete assessments and provide information into the student database in a timely manner. The SAM acts on the

information put in the database and if the information is incorrect or delayed, the wrong interpretation may be made.

How has the role of the Student Achievement Manager evolved over the years?

I have been the SAM since 2007. The role has evolved as we have become more data savvy and more questions are asked of the data. It is a fundamental basis for which evidence is collected and interpreted for the benefit of the students.

What support needs to be in place for a Student Achievement Manager to be effective?

The SAM needs time to collate and analyse the data, and to attend professional development on data analyses. You also need a good working knowledge of NCEA and its rules and regulations.

Do you have any tips on managing the workload?

It's a mind-set really, my very first head of department used to tell me "Sam you can only do what you can only do". So prioritising the workload is key.

What are the highlights of being a Student Achievement Manager?

It has been fantastic to see the use of data being directed back towards making improved outcomes for students. Generally speaking assessment data is seen as a somewhat negative part of education, however it is one key tool (of many) in feedback and feed-forward, allowing teachers to make interventions and to get the best results for students academically.

Role of the Student Achievement Manager:

- Organise timely collection of data
- Work with Database Manager to record all student achievement data
- Maintain evidential database (EDB)
- Review and analyse results
- Prepare target setting calculations
- Manage tracking and monitoring
- Prepare data for academic counselling
- Support Academic Counselling Manager
- Prepare data for parent-student-teacher conferences
- Support conference coordinator
- Manage/train data teams and professional learning communities

From the Director



Professor Cindy Kiro Director, Starpath Project

E ngā rau rangatira mā,
ngā mihi nui ki a koutou
kātoa i te wā tino tuamaha
ou koutou mahi. Talofa
lava, malō, kia orana.

My thanks especially to
those schools in the far
north and mid north who

hosted Joy Eaton and myself earlier this year when we visited six Starpath schools. This was absolutely invaluable to me as the incoming Director to better understand what is happening in schools and the nature of the communities and whānau whom you work with. I am looking forward to also visiting our Auckland schools, particularly those with high numbers of Pāsifika students and other multiple and complex educational and social needs.

I attended the Education Cross-Sector Leadership Forum in February and will attend the next one in late May. These are invaluable for meeting with other key leaders in the sector, the Minister of Education Hon. Parata, Secretary and Deputy Secretaries and many others such as School Principals, ERO and STA. These are an opportunity to take the weather vane of changes happening in the sector. Clearly there is a strong commitment to increasing NCEA achievement, integration of kaupapa Māori within the sector, and evidence-based education and new policy initiatives such as the Schools of Learning.

I will also begin visits around the country to meet those nominated for the Prime Minister's Excellence in Education Awards in May. This is an inspiring experience meeting people full of passion, vision and energy to effect positive changes in education.

Thank you schools and other Starpath stakeholders. There is still so much to do but we would achieve nothing without your active support and desire to continue improving what happens for learners. Our analysis of Starpath data has increased and we are seeing significant improvements. There has also been comment made around UE and the impacts of policy changes on schools and students preparing to enter into university. We will keep a close eye on these changes over the remainder of the year along with NZQA and the Ministry of Education.

Ngā mihi

Cindy Kiro

Data walls: a quick guide

Increasingly Starpath schools are using data walls to clearly communicate in a visual way important information about student academic progress. A data wall is only good if it is used to stimulate dialogue and action.

What: A display of up-to-date student achievement data. This can be about individual students, targeted students or priority students. Red/Amber/Green highlights groups of students for particular actions. Group information might also be useful – such as gender, ethnicity, levels or classes. There is an opportunity to display exemplars of student work.

Where: Most often displayed in the staffroom or staff workroom; occasionally seen in Principal's or DP's office. Be careful about what data is displayed in a public space, avoiding data that identifies individuals and classes.

When: Regularly updated, for example monthly NCEA tracking. It can be useful to build summaries up over time to compare this month with last month, this year with last year.

Who: Maintained by the Student Achievement Manager, discussed by staff and school leaders.

Year 9 and 10 extension project ends

Last year 34 schools took part in an extension of the Starpath Project. The strategies that have worked so well in senior school were adapted and used for Year 9 and 10.

Starpath recently submitted the final report on the one year Extension Project to the Ministry of Education. A number of key recommendations were made.

The importance of students being 'secondary ready' by the end of Year 8 cannot be stressed enough. This means that students need to be at or very close to curriculum level 4 on entry to high school.

Years 9 and 10 are critical for future success. It is possible to make accelerated progress in reading comprehension and mathematics which provides more students with the skills and knowledge they need for a successful journey through three years of NCEA and on to tertiary study. Starpath work in this area shows that a continuing focus on Year 10 students, particularly in literacy, is required.

Schools should generate junior assessment data more regularly, and use the evidence to improve teaching and learning. A noticeable shift has occurred in this area. Schools were found to be receptive to changing their practice, although they need ongoing support to raise literacy and numeracy achievement rates. There remains a strong demand for subject specific literacy

professional development work at the end of this project. This should be an area for continuing development.

Professional learning and development is also required to extend the skills of teachers in unpacking and interpreting student achievement data. Starpath recommends that data is collected in a centralised repository in each school and used for individual reflection and group discussion.

Another area for continued focus and improvement is the effective engagement of whānau within Year 9 and 10 PST conferences. It was also demonstrated that effective practice in academic counselling with junior students clearly links with strong whānau engagement.

Starpath noted the considerable and ongoing frustrations with using e-asTTle, for both teachers and students. Whilst some of this relates to local issues such as hardware availability, much of it is directed at the Ministry's server. It was recommended that the Ministry develop infrastructure and enhancements that address these concerns as soon as possible.

Finally, the brevity of this project was a major challenge. To make substantial shifts in school practice within a 12 month period is difficult. Starpath advised continued research and development to raise awareness about important issues in Year 9 and 10 achievement.

Implementation update

Phase out begins

Joy Eaton, Director: School Engagement



The phase out phase has started. At the end of 2014 the Starpath research team completed individual evaluations of Group B schools and in 2015 gained ethics approval to return to the five original partner schools to conduct '5 years on' interviews. This material along with the Group A evaluations from 2013 will form the qualitative basis of our final report. At the same time detailed quantitative analysis is being carried out with the 2014 results and the longitudinal pattern across the five years of phase 2. Preparing this material for the Summative Report is a major focus for the Starpath research team this year and we expect it to be largely completed by December. The researchers are also heavily engaged in writing academic papers for publication with a book planned for publication in 2016.

The professional development team has also changed focus for the last year. We are able to offer some workshops particularly in literacy and numeracy but the main effort has gone into working with individual schools. This work is to ensure that Starpath strategies are embedded within normal school practice. The professional development team has had a very busy term and worked with 18 schools.

Starpath is also focused on leaving a toolkit of resources that can be used by current Starpath schools to maintain the programme and which could be used by schools not currently involved in the project to introduce the strategies if they want to. For this toolkit we will be writing case studies to highlight successful components of the project and we will feature templates that have been developed in Starpath schools. It has been a real privilege to work with innovative and dedicated teachers and schools and we are sure Starpath people will be prepared to share their great work. We are aiming to launch this toolkit in September.

Thank you for all your support with this significant work.

Outstanding research award for Woolf Fisher

Starpath research partner the Woolf Fisher Research Centre has won a prestigious University of Auckland Research Excellence Award. Held each year the awards celebrate the quality of the University's research and the exceptional talents of its top academics. The award, received by Professor Stuart McNaughton with Dr Mei Lai, Dr Rebecca Jesson and Dr Aaron Wilson, highlights a 12 year commitment to developing and testing a model to raise and extend student achievement. The Woolf Fisher team has worked in more than 50 schools and with more than 10,000 children to develop the Learning Schools Model (LSM).



How Whangarei Boys' is ensuring new students are 'secondary ready'

An insight into the 'FLANS' or Foundation Literacy and Numeracy Skills programme.

When Year 9 students enter Whangarei Boys' High School one of the first things they encounter is a basic skills entry test. This helps the school to determine who is 'secondary ready' - do the boys have the basic English and Maths abilities to succeed at secondary level?

This measure was put in place three years ago at the request of heads of departments concerned about a lack of basic academic skills amongst some students. Without a foundation in literacy and numeracy it is difficult for these students to access and understand the curriculum, leading to a failure to achieve NCEA. The entry test measures the boys' abilities in spelling, basic facts, numeracy and English skills such as punctuation and parts of speech. Results are combined with PAT test scores and Mid-Yis scores. Those that are considered to be at risk of not achieving attend the Foundation Literacy and Numeracy Skills programme, or FLANS, where they cover the basics in English and Maths in a positive environment with an emphasis on fostering a love of learning.

The FLANS initiative is backed up by data and tracking. It came about after a Starpath-style analysis of student achievement data showed HODs were having little impact on raising students' literacy and numeracy skills once they were underway in Years 9 and 10. The school's response, with widespread support from teaching staff, was to introduce FLANS. Driven by the Deputy Principal responsible for curriculum, and at the request of Heads of Departments, FLANS was established in 2013 and is now in its third year of operation.

Initially the FLANS programme began with two classes. In the first year boys were timetabled for 8 hours per week each of English and Maths lessons and were withdrawn from Science and Social Sciences. This was a significant shift for the school, however all staff recognised the intervention needed to be a priority. Communication and providing information to parents have been instrumental in gaining whānau support of the initiative.



'Without a foundation in literacy and numeracy it is difficult for these students to access and understand the curriculum, leading to a failure to achieve NCEA.'

End of Year PAT data and examination scores are used to measure the programme's success. In 2014 the boys were timetabled for six English and Maths lessons per week, in addition to the Science and Social Sciences. The FLANS teachers follow the Year 9 programmes of work in English and Maths, with an extra emphasis on skills work. Three boys from the first classes of FLANS students outperformed their peers in 2014, placing first overall in their respective classes for academic achievement.

The school has resourced the FLANS programme in a number of ways. An establishment budget was provided through which resources such as sets of Scientific Reading Lab equipment were purchased, an operational budget remains in place, and one management unit is allocated for the teacher in charge of the initiative. Classes have been kept at a reasonable size and experienced teachers have been allocated to teach the FLANS students. Developing positive relationships with the boys and their families is regarded as an integral component of working with these students.

Fundamentally, high expectations of success for the boys must be maintained for FLANS to continue to be a success. Teachers involved with the FLANS classes attribute the growth in students' confidence, a positive attitude to their study and a love of learning to the success of the programme in raising achievement. For this to be sustained over time, the initiative requires continued resourcing, committed staff and use of data for evidence.

Success in science subjects at university



Summer scholar Steven Turnbull

What is the relationship between success in science subjects at school and at university?

Starpath's summer scholar Steven Turnbull investigated this question over the 2014/15 summer break under the supervision of Dr Earl Irving.

With the co-operation of the Associate Dean

Science, Margaret Goldstone, he was able to analyse data for students in their first year in the Faculty of Science at The University of Auckland in the 12 most frequently taken papers. Along with the first year data, he had available their academic record from their last year at high school. There were over 2,700 students in the dataset.

Not too surprisingly, the chances of success in first year science papers were greater for students who had studied the equivalent subject in their last year at school, and the better their NCEA result, the better their university grade. For example, students who took chemistry at Level 3 at high school were almost six times more likely to be successful on Chemistry 110 at university than those who did not.

The university tags some achievement standards as essential/important or preferred/helpful if a student is considering taking that subject at university. In the case of Chemistry 110, a student who obtains AS91392 (an 'important' standard) is almost four times as likely to be successful as a student who has not. There were similar findings for papers in biology, physics, mathematics and statistics, although the magnitude of the relationship varied.

A statistically significant relationship was found between the proportion of internally assessed standards taken at high school and the GPA of the students at university. Students who obtained an A grade had just over half of their standards internally assessed, and the proportion steadily increased as the grade decreased until students with a D grade obtained almost 60% of their NCEA from internally assessed standards. Māori and Pasifika students had the highest proportion of internally assessed standards in Year 13, and this pattern was also true of schools like those in the Starpath Project.

The take-away message of this study is that students need to take subjects at high school if they wish to pursue them at university, and that the essential or preferred standards really do make a difference. In addition, students who are university-bound should maximise the number of externally assessed standards they take in Year 13, and make sure that they turn up to the examination.

Steven will present his findings to meetings of science teachers arranged by the Faculty of Science, and to an international teaching and learning conference in Auckland mid-year.

Staff comings and goings

This year we have welcomed Victoria Cockle, Morgan Rangi and Dr Stephen McTaggart to the Starpath Project. Victoria is a research analyst. Her activities will involve qualitative and quantitative (including mixed-methods) analysis of longitudinal Starpath data to help inform the evaluation of the effectiveness of the project. She joins Starpath from the Kia Eke Panuku: Building on Success project, and was at the Woolf Fisher Research Centre prior to that. She is currently undertaking post-graduate study in Environmental Management at The University of Auckland.

Morgan has joined the team as a Professional Development Facilitator and Data Analyst. His most recent role was as HOD Mathematics and Statistics at Onehunga High School. Morgan provides support for schools in the project leading staff PD sessions as well as visiting schools for data analysis around tracking and monitoring.

Dr Stephen McTaggart has joined Starpath as a research analyst for the qualitative team - he will be introduced in the next Starpath newsletter.

Dr Melinda Webber completed her contributions to The Starpath Project at the end of 2014. Dr Webber has been a qualitative researcher since the start of Phase Two. She will be on research and

study leave for the first half of 2015 before she returns to her academic post in the School of Learning, Development and Professional Practice at The University of Auckland. Dr Webber will continue to contribute to some academic writing-based work for Starpath in 2015.

After two-and-a-half years working on The Starpath Project, Dr Andres Santamaria has transitioned to a new full-time, permanent position as a Lecturer in Educational Leadership for the Auckland University of Technology (AUT). A former primary school principal from California, Dr Santamaria expressed his gratitude to Starpath for the opportunity to gain a deep understanding of New Zealand's education system.

In April we farewelled Dr Acacia Cochise, who has worked for Starpath for the past year in qualitative research. We thank her for her contributions to the Project.

We also farewelled project coordinator Megan Jeffries who has been with Starpath since May 2014. Our administrator Kezia Kelly is looking forward to a broader role with Starpath taking over the project management duties, in addition to the fundamental administrative support she already provides.

Starpath joint research seminar series

Equity, education and achievement

Starpath and Te Puna Wānanga (School of Māori Education) are co-hosting a series of free public research seminars to be held on the third Wednesday of every month.

The upcoming seminars are:

Wednesday 17 June - (Starpath) Professor Cindy Kiro, Dr Irena Madjar, Dr Earl Irving and Associate Professor Anne Hynds: "Where are we now? Up-date on the Starpath Project"

Wednesday 15 July - (Te Puna Wānanga) Ripi Kaur: "Exploring Ethnic Differences in Academic Motivation and Achievement among University Students"

Wednesday 19 August - (Starpath) Dr Earl Irving: "Target setting for Value Added?"

Wednesday 16 September - (Starpath) Dr Irena Madjar and Dr Aaron Wilson: "Investigating Opportunities to Learn"



The Starpath Project for Tertiary Participation and Success, is a partnership between The University of Auckland and the New Zealand Government. The Project works in partnership with schools to transform educational outcomes for students who are currently under-achieving at secondary school and, as a result, under-represented in tertiary education.