

THE UNIVERSITY OF AUCKLAND CAMPAIGN
FOR ALL OUR FUTURES



Ngatahi Education Initiative
Baseline Data Collection



**CAN
WE...**

Impact Report – Milestone 1 –
I Have A Dream Charitable Trust
1 December 2017

CAN WE PREVENT ADULT DISEASE BEFORE BIRTH? ... CAN WE KNOW HOW THOUGHTS ARE MADE? ... CAN WE PROLONG THE QUALITY OF PEOPLE'S VISION? ... **CAN WE REDUCE INEQUALITY THROUGH EDUCATION?** ... CAN WE HELP WOMEN IN PRISONS TO GAIN SELF-ESTEEM? ... CAN WE BRING BACK THE DAWN CHORUS TO OUR CITIES? ... **CAN WE HAVE THE BEST SCHOOL SYSTEM IN THE WORLD?** ... CAN WE LEARN FROM THE MISTAKES OF HISTORY TO CREATE A BETTER WORLD? ... CAN WE BUILD A SOCIETY THAT PROTECTS ITS WEAKEST MEMBERS? ... **CAN WE BUILD STRONGER COMMUNITIES?** ... CAN WE NURTURE CUTTING-EDGE INNOVATION WITH TRADITIONAL INTEGRITY? ... CAN WE USE VISUAL TESTS TO DIAGNOSE AUTISM? ... CAN WE FACILITATE THE CREATION OF AMAZING ARTWORKS? ... CAN WE REDUCE OUR RELIANCE ON FOSSIL FUELS? ... CAN WE DEEPEN OUR UNDERSTANDING OF THE CREATIVE PROCESS? ... CAN WE BRING UP A GENERATION OF CRITICAL THINKERS? ... **CAN WE STOP WASTING TALENT?** ... CAN WE MAKE EVERY BUILDING SAFE FROM EARTHQUAKES? ... CAN WE EMPOWER YOUNG ADVOCATES TO FIGHT INJUSTICE? ... CAN WE TURN OFF THE OBESITY SWITCH? ... CAN WE TAKE MORE GAME-CHANGING IDEAS TO MARKET? ... CAN WE ATTRACT AND RETAIN THE BEST MINDS IN NEW ZEALAND? ... CAN WE MAKE OUR HEALTH SYSTEM MORE EFFICIENT? ... **CAN WE ERADICATE CHILD ABUSE?** ... CAN WE BUILD A MODERN ROBUST ECONOMY? ... CAN WE PREVENT PROGRESSION OF MYOPIA WITH CONTACT LENSES? ... CAN WE CAPTURE THE FORCE OF LIGHT? ... CAN WE IMPROVE SOCIETY THROUGH UNDERSTANDING OF INJUSTICES? ... CAN WE POWER OUR DEVICES WITHOUT WIRES? ... CAN WE DEVELOP THE GO-TO PRODUCTS AND SERVICES OF TOMORROW? ... CAN WE CREATE CHANGE, INVITE INNOVATION AND LEAD THE WAY? ... CAN WE COMBINE CREATIVE FLARE WITH FUNCTIONALITY? ... CAN WE DEVELOP EFFECTIVE INTERVENTIONS FOR ADDICTION? ... CAN WE PREPARE YOUNG NEW ZEALANDERS TO BE GLOBAL CITIZENS AND INFLUENCERS? ... **CAN WE ENSURE ALL OUR YOUNGSTERS ARE READY FOR SCHOOL?** ... CAN WE PREVENT MIGRAINES? ... CAN WE PROVE THE VALUE OF CREATIVITY? ... CAN WE DESIGN CITIES READY FOR A CHANGING WORLD? ... **CAN WE OVERCOME ECONOMIC BARRIERS TO BRILLIANT STUDENTS?** ... CAN WE SEE INTO A VOLCANO? ... CAN WE TRANSFORM LIVES WITH CREATIVITY? ... CAN WE FOSTER A SUCCESSFUL ENTERPRISE CULTURE? ... CAN WE HELP THE NEXT GENERATION OF COMPOSERS TO WOW THE WORLD? ... CAN WE USE A SINGLE BLOOD TEST TO DIAGNOSE CANCER? ... CAN WE MAKE OUR WATERS CLEAN? ... CAN WE USE CREATIVITY TO ENHANCE THE WELL-BEING OF PEOPLE WITH DISABILITY? ... CAN WE PREVENT PREMATURE DEATH AMONGST MĀORI? ... **CAN WE KEEP ALL OUR CHILDREN SAFE?** ... CAN WE BUILD A SPACE INDUSTRY? ... CAN WE REDUCE REOFFENDING? ... CAN WE KNOW WHAT IS IN OUR AIR? ... CAN WE GIVE ALL STUDENTS INTERNATIONAL EXPERIENCES? ... CAN WE CREATE TRULY WATER-SENSITIVE CITIES? ... **CAN WE MAKE TEACHING A HIGHLY VALUED PROFESSION?** ... CAN SCIENCE AND MĀTAURANGA MĀORI WORK HAND IN HAND? ... CAN WE MOVE THE DIAL ON OUR ECONOMIC PERFORMANCE? ... CAN WE BE WORLD LEADERS IN INDIGENOUS HEALTH? ... CAN WE MAKE BURN SCARS A DISTANT MEMORY? ... CAN WE BETTER UNDERSTAND NEW ZEALAND'S UNIQUE IDENTITY? ... CAN WE REPLACE LOST BRAIN CELLS? ... CAN WE RESTORE OUR UNIQUE NATURAL ENVIRONMENT? ... **CAN WE ACCELERATE LEARNING THROUGH DIGITAL INNOVATION?** ... CAN WE USE THE ARTS TO INCREASE PERFORMANCE IN THE SCIENCES? ... CAN WE SLOW DOWN THE PROGRESS OF FRONTOTEMPORAL DEMENTIA? ... CAN WE IGNITE A SPIRIT OF INNOVATION? ... CAN WE UNDERSTAND HOW THE UNIVERSE FORMED? ... CAN WE LEAD THE WORLD ON ENVIRONMENTAL POLICY? ... **CAN WE HELP OUR STUDENTS TO MOVE ON TO POSTGRADUATE STUDY?** ... CAN WE CELEBRATE OUR DIVERSITY AND CREATE AN INCLUSIVE SOCIETY? ... CAN WE HAVE CLEAR RIVERS AND SEAS? ... CAN WE CREATE A CRIME-FREE ENVIRONMENT? ... CAN WE ENRICH INDEPENDENT EVERYDAY LIVING FOR OLDER PEOPLE? ... **CAN WE USE SOCIAL DATA MORE EFFECTIVELY?** ... CAN WE MAKE OUR COMPUTERS SAFE FROM HACKERS? ... CAN WE IMPROVE THE LIVES OF PEOPLE WITH SEVERE EPILEPSY? ... CAN WE MAKE EVERY HOME A GREEN ONE? ... CAN WE FOSTER THE TALENTS OF OUR YOUNG PERFORMERS? ... CAN WE REDUCE THE HIGH INCIDENCE OF HEART DISEASE AMONGST MĀORI? ... CAN WE EARTHQUAKE-PROOF NEW ZEALAND? ... CAN WE DO JUSTICE TO OUR GLOBAL OPPORTUNITIES? ... **CAN WE PREPARE STUDENTS TO SUCCEED IN A RAPIDLY CHANGING WORLD?** ... CAN WE PROTECT NEW ZEALAND'S CREATIVITY AND INNOVATION? ... CAN WE POWER NEW ZEALAND WITH THE WIND? ... CAN WE LEARN WHAT IS NEEDED FOR AN ETHICAL AND JUST SOCIETY? ... CAN WE DESIGN ANTI-SKID ROADS? ... CAN WE DELAY THE ONSET OF ALZHEIMER'S? ... CAN WE BE A WORLD LEADER IN BIOSECURITY? ... CAN WE IMPROVE THE WELL-BEING OF THE WORLD'S MOST VULNERABLE PEOPLES? ... CAN WE INNOVATE TO CREATE VALUE FOR ALL? ... CAN WE ACCELERATE BRAIN RECOVERY AFTER STROKE? ... CAN WE CREATE A SAFER FUTURE? ... CAN WE NURTURE THE ABILITY TO THINK AND ACT CREATIVELY? ... CAN WE IMPROVE NEW ZEALAND'S RELATIONS WITH OTHER COUNTRIES? ... CAN WE MITIGATE THE DEBILITATING EFFECTS OF CEREBRAL PALSY? ... CAN WE REIMAGINE BUSINESS SUCCESS? ... CAN WE UNDERSTAND THE VALUE OF MARINE RESERVES? ... **CAN WE PREPARE OUR STUDENTS FOR THE 21ST CENTURY OF WORK?** ... CAN WE ENSURE ALL PREMATURE BABIES HAVE A NORMAL LIFE? ... CAN WE ENSURE GOOD GOVERNANCE FOR THE FUTURE OF NEW ZEALAND? ... CAN WE CREATE BETTER MUSEUMS? ... CAN WE MAKE EXERCISE A PRESCRIPTION FOR HEALTH? ... CAN WE INCREASE EDUCATIONAL ACHIEVEMENT BY TEACHING THROUGH THE ARTS? ... CAN WE USE NON-INVASIVE BRAIN STIMULATION FOR RECOVERY FOR STROKE SURVIVORS? ... CAN WE BE A SUSTAINABLE COMMUNITY? ... **CAN WE END NEW ZEALAND'S STEM SKILLS SHORTAGE?** ... CAN WE POWER OUR HOMES WITH ELECTRIC CARS? ... CAN WE DRAMATICALLY IMPROVE CANCER SURVIVAL RATES? ... CAN WE USE THE ARTS TO BUILD OUR SENSE OF NATIONAL IDENTITY? ... CAN WE UNCOVER NEW INSIGHTS INTO OUR PAST THROUGH ARCHAEOLOGY? ... CAN WE CREATE WORKPLACES THAT WORK? ... CAN WE PREPARE FOR THE IMPACT OF CLIMATE CHANGE? ... CAN WE OPTIMISE NUTRITION FOR ALL MOTHERS AND BABIES? ... CAN WE INCREASE THE PUBLIC UNDERSTANDING OF ADVANCED TECHNOLOGY? ... CAN WE BETTER UNDERSTAND THE HUMAN CONDITION THROUGH LITERATURE? ... **CAN WE CHANGE THE WAY WE MEASURE SUCCESS IN SCHOOLS?** ... CAN WE RADICALLY REDUCE THE INCIDENCE OF HEART DISEASE AND DIABETES? ... CAN WE ENSURE HEART HEALTH FOR FUTURE GENERATIONS? ... **CAN WE TRANSFORM AT-RISK COMMUNITIES?** ... CAN WE FUTURE-PROOF OUR FIRMS? ... CAN WE REDEFINE OLD AGE? ... CAN WE CREATE LEGISLATION THAT EFFECTIVELY PROTECTS THE ENVIRONMENT? ... CAN WE CONTROL EPIDEMICS OF SEXUALLY TRANSMITTED INFECTIONS? ... CAN WE MAKE CREATIVITY FUNDAMENTAL TO LEARNING? ... CAN WE CREATE 5G CELLULAR TECHNOLOGY? ... CAN WE LEAD THE WORLD IN PERINATAL RESEARCH? ... **CAN WE ENSURE EVERY YOUNG PERSON HAS ACCESS TO GREAT TEACHERS?** ... CAN WE HELP MORE PATIENTS IN OUR HOSPITALS? ... CAN WE PRODUCE A GENERATION OF AWARD-WINNING FILMMAKERS? ... CAN WE HARD-WIRE OUR COMPANIES FOR SUCCESS? ... **CAN WE HELP DESERVING STUDENTS TO ACHIEVE THEIR ACADEMIC DREAMS?** ... CAN WE FOSTER CREATIVE WRITERS AND AUTHORS? ... CAN WE MAKE BETTER USE OF OUR ORGANIC WASTE? ... CAN WE BRING THE ARTS INTO BUSINESS? ... **CAN WE INVEST IN NEW ZEALAND'S LONG-TERM SUCCESS?** ... CAN WE MEASURE THE IMPACT OF CULTURAL INSTITUTIONS ON OUR SENSE OF SELF? ... CAN WE MAXIMISE THE POTENTIAL OF 'BIG DATA' WHILE AVOIDING ITS MISUSE?

CAN WE forge a pathway into tertiary education and/or employment for each and every participating child?

THANK YOU

The University of Auckland would like to thank the I Have A Dream Charitable Trust (IHAD) for generously supporting the Ngatahi Education Initiative, and specifically the first phase of the data collection, based in four Northland Schools in low socioeconomic communities. The aim of the overall initiative is to ensure that all students in the programme have a navigator who will support and advise them through primary school, to intermediate, secondary and into tertiary education.

The Research Team from the Faculty of Education & Social Work are using their experience and expertise to collect and analyse key data and to empower the schools involved by helping them identify the type of data they need to collect on an ongoing basis. Your commitment to investing in this partnership work is greatly appreciated. It is so important to be able to compare the academic outcomes for the students in the programme with those of similar students in other similar schools, over a sustained period of time. Thank you for making a difference to the lives of students in the long-term.

It is our pleasure to provide this December 2017 Milestone 1 report on the impact of your support. We would like to share with your Trustees a report, from Professor Christine Rubie-Davies and Dr Mohamed Alansari, which details a successful baseline data collection phase.

FINANCIAL INPUT

Thank you for investing \$82,500 to form a long-term partnership between IHAD and the University of Auckland and to enable robust data collection and analysis to support the Ngatahi Education Initiative.

SUMMARY OF OUTCOMES AND IMPACT TO DATE

“This round of data collection helped us establish robust measures that can be used longitudinally, across year levels and schools, and also enabled the IHAD team to reflect on programme design, research logistics, and scope control” – Professor Christine Rubie-Davies & Dr Mohamed Alansari.

EXECUTIVE SUMMARY – MILESTONE 1

ACTIVITY & OUTPUTS

You will see from Professor Christine Rubie-Davies and Dr Mohamed Alansari's comprehensive report below the various activity that has been taking place to support exploration of the beliefs, attitudes and aspirations of youth over time. The activity can be summarised as follows:

- Two rounds of data collection are taking place every year, called "Beginning of year data" and "End of year data" with attitudinal and achievement data being collected at each round
- Students responded to a 118-item self-report questionnaire, in small groups of 4-6
- Navigators and teachers completed another set of self-report questionnaires
- Ethics approval was obtained
- A master database was created for students, teachers and navigators
- Schools conducted their e-asTTle testing at the beginning and end of each year, and provided a summary of the results to the research team which was matched with student questionnaire data
- Student e-asTTle data was analysed alongside the e-asTTle norm and curriculum expectation score for each year level
- Cronbach's alpha reliability test was used to determine which factors were either too hard for students to understand or did not provide robust information
- The responses from students, teachers and navigators were analysed from the "Beginning of year" data collection

OUTCOMES TO DATE

The baseline data collection phase constitutes a promising and exciting start to the current longitudinal programme. Preliminary analyses revealed a range of results characterised by highly positive student views, strong efficacy beliefs by navigators and teachers, as well as clear areas for further discussion with various stakeholders involved in this project.

- The student questionnaire answers provided insights into students' beliefs about the socio-emotional climate of learning; attitudes and values towards teachers and school; present and future time attitudes about their current versus future life; emotional and behavioural engagement at school; mindsets; self-belief and aspirations
- The teacher and navigator answers to the surveys provided insights into their sense of efficacy beliefs (degree of influence); perceptions of school change orientation; and beliefs about learning

FUTURE IMPACT

Please see the comments and recommendations on pages 28 & 29. We look forward to providing you with the Milestone 2 report, once all data has been collected by the end of 2017, which we hope to submit at the end of February/beginning of March 2018.

**NAVIGATING SUCCESS: EXPLORING THE BELIEFS,
ATTITUDES, AND ASPIRATIONS OF YOUTH OVER TIME**

MILESTONE 1

REPORT ON 2017 BASELINE DATA

Prepared for:
I Have A Dream Charitable Trust

Prepared by the Research Team:
Dr Mohamed Alansari
Professor Christine Rubie-Davies

INTRODUCTION

This report is an update on our progress with the key tasks outlined in the research plan (discussed later), including a summary of the baseline data collected and progress as of November 2017.

This report is also to confirm which survey measures were proven to be reliable for use in future phases of the project.

A description of the project values, aspirations, and research plan are included next to contextualise our approach, followed by a summary of the main preliminary findings.

Upon request, individual school data can be provided but not individual student or teacher information, in line with our agreement to guarantee confidentiality and anonymity for the research participants.

This report should only be used for the purposes for which it was intended, that is, to report to stakeholders involved in the project on outcomes within the I Have A Dream (IHAD) project. If it is proposed to use this report for a different purpose or in a different context from that intended at the time of commissioning the work, then the authors should be consulted to verify whether the report is being correctly interpreted. In particular, it is requested that, where quoted, conclusions given in this report should be stated in full.



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RESEARCH OBJECTIVES AND PLAN

The research team met with the I Have A Dream (IHAD) team at the end of 2016 to better understand the project needs, and to help draft an overall research project that could serve as an evidence-gathering tool for the project. We were informed about the project mission, values, and processes, and drafted a document outlining these in a way which reflected the nature of the University–Trust partnership. This was done following extensive feedback from University members with strategic expertise in mentoring programmes (Dr Pat Bullen, expert in positive youth development and mentoring), governance (Professor Graeme Aitken, Dean of Education), assessment and evaluation (Professor Gavin Brown, senior project manager for e-asTTle and worldwide expert in testing), and in line with our strong commitment to equity for Māori (e.g., Professor Cynthia Kiro, Director of Tai Tokerau campus and professor of Māori Education). The research team’s mission, role(s), and values are therefore described below.

Mission

To develop a long-term partnership between IHAD and the University of Auckland in ways that contribute to the success of the project. We will do this by being a *kaiarahi* (guide) to deepen, through the use of systematic data collection and analysis, our mutual understanding of how and why the project better enables *tamariki* and *rangatahi* academic and life success, and to be a critical friend to guide us to improvements wherever possible.

Ngā Kaiarahi – the “Guides”

We are a group of researchers who are solutions-driven, committed, and passionate about improving the educational and life outcomes for all children.

Role(s)

The University will support IHAD in three capacities:

- **Evaluative capacity:** Scoping the project and collecting data for the purpose of evaluating its effectiveness in lifting students’ outcomes. We will do this by providing advice on an evaluation framework that is tailored to meet the needs of Tai Tokerau *tamariki* and the objectives of the Trust.
- **Advisory capacity:** Scoping the project and collecting evidence (e.g. data, artefacts, stories) that progressively and systematically feeds into the planning, decision making, and implementation phases of the project.
- **Expertise capacity:** Scoping the project and providing expertise (e.g., literacy development, high teacher expectations training, mentoring) and guidance on best practices that lift the aspirations and educational (and social) outcomes of Tai Tokerau *tamariki*.

Research Team's Values

We will work with IHAD to uphold their values in our shared work;

- **Tumanako (hope/aspirations):** We have high hopes, aspirations, and expectations for the project team and those involved in it.
- **Aroha (love):** We share the love that the project team has for their tamariki and a belief in their abilities to better achieve academic success, and place them at the centre of our work. Their success is our success.
- **Ako (learning):** We will be learning from the project team and work alongside them to understand their needs, aspirations, and challenges facing them in order to better understand how we address these needs/aspirations/challenges as a Ngatahi community.
- **Whanaungatanga (relationship):** We will acknowledge, respect, and develop long-standing relationships with the project team and develop a community of knowledge and practice that will enable the best results possible for the children in the project.
- **Rangatiratanga (empowerment/autonomy):** We are here to empower the project team, and share our expertise in order for them to decide on what works best for the children in their project, and how to maximise the positive outcomes of their initiative.

Matching the IHAD Project Values with the Research Measures

Table 1 below lists the key performance indicators, along with the research measures to be used in the research, matched against IHAD project values. The decision behind choosing these measures was based on the robustness of such measures, as well as their applicability and relevance to the New Zealand context. It must be noted that all measures listed in Table 1 below had already been used in previous New Zealand and international studies, and had been shown to significantly predict a range of educational outcomes.

Table 1: Matching IHAD values with existing research measures

Project Values	Key Performance Indicators	Measures
Tumanako (hope/aspirations)	Staff/Navigators/Schools' attitudes and perceptions towards students in the project.	• Navigator Expectations • Navigator Mindsets • Navigators' sense of efficacy
	Staff/Navigators/Schools' sense of efficacy towards reaching the goals of the project.	• Faculty Change Orientation • Teachers' sense of efficacy • Teacher Mindsets
	Student future aspirations	• Time Attitudes (present and future) • School utility value • Student aspirations
Aroha (love)	Care for students.	• Teacher academic support • Teacher personal support • Parental academic support • Parental personal support • Navigator academic support • Navigator personal support • Sense of belonging
Ako (learning)	Attitudes towards teaching and learning	• Feelings toward school • Feelings toward teachers
	Student engagement	• Behavioural and emotional engagement
	Student outcomes	• Student achievement • Wagging school / attendance • Safety
Whanaungatanga (relationship)	Student relationships with the teacher, navigator, and peers.	• Class Cohesion • Feelings toward teachers • Teacher academic support • Teacher personal support • Parental academic support • Parental personal support • Peer relations self-concept • Trust • Sense of belonging
	Positive Class Climate	• Teacher academic support • Teacher personal support • Academic competence • Satisfaction
	Parental involvement	• Parental academic support • Parental personal support
Rangatiratanga (empowerment/autonomy)	Self-beliefs, control, and effort	• Self-efficacy • Self-expectations • Mindset beliefs

METHOD

Research Design

Due to the longitudinal nature of the project, it was important to gather data over multiple time-points per year from the same group of students to enable examining changes over time in their beliefs, attitudes, and achievement. This was also important for navigators and teachers who also play an important role in the efficacy and effectiveness of IHAD. This quasi-experimental nature of the design is labour intensive and requires careful tracking of students who will be changing rooms, teachers, navigators, and schools over time.

Two rounds of data collection will take place every year (see Table 2 below), with attitudinal and achievement data being collected at each round. This will enable changes within and across academic years to be examined, and investigation of critical periods in which these changes are likely to occur.

Table 2: Overall data collection process

Phase	Data Collected
Beginning of year data (February – March)	• e-asTTle standardised tests (Maths and Reading) • Student questionnaires • Navigator questionnaires • Teacher questionnaires
IHAD activities in progress	
End of year data (October – November)	• e-asTTle standardised tests (Maths and Reading) • Student questionnaires • Navigator questionnaires • Teacher questionnaires • Interviews with school and IHAD leadership teams, navigators, teachers, and parents/whanau

Questionnaire Administration

Students responded to a 118-item self-report questionnaire to capture a range of attitudinal data, aspirations and self-beliefs. These were listed in Table 1 earlier, and will be described in the results section later.

Items were scored on a 5-point Likert scale ranging from 1 for ‘false’ to 5 for ‘true’. To ensure that students were able to understand and respond to all questions, the research team, with the help of IHAD volunteers, sorted students into small groups of 4-6. Each researcher or volunteer was then assigned a group to read all questions to. The data-gathering team also helped students identify their navigators. Younger students completed the paper and pencil version of the questionnaire, whereas older students completed the online version using iPads provided by IHAD for data collection. On average, younger students spent 40–50 minutes completing their questionnaires, whereas older students spent no more than 30–40 minutes.

Navigators and teachers completed another set of self-report questionnaires aimed at gathering information regarding their beliefs about teaching, learning, and students. These questionnaires also included questions designed to measure navigator and teacher perceptions of change processes. The research team was cautious of teachers' and navigators' busy schedules, and therefore created a questionnaire that could be completed in no more than 15–20 minutes. An online version of the questionnaire was also distributed via an anonymous link to those who wished to complete it at a later time.

Description of e-asTTle Tests

The e-asTTle test is an assessment tool developed in New Zealand for use with students from Years 3/4 through to 11/12. Teachers can create 10–60 minute paper and pencil or online tests in reading comprehension and maths, mostly consisting of multi-choice items. Test items are selected to match the learning needs of specific student groups. Once students' curriculum levels have been set by teachers, tests are then created and scored between 1000-3000. The e-asTTle tool produces graphic reports that allow teachers to analyse student achievement against curriculum levels, curriculum objectives, and population norms. This enables teachers to see whether their students are achieving within, above, or below the expected level when compared to the New Zealand population of students in the same year level. The student reports give teachers a score for each student and also an equivalent curriculum level. Individual student achievement standards can be explicitly defined, as asTTle further divides each curriculum level, from level 2 to 4 into three sublevels, that is, Basic, Proficient, and Advanced.

Data Collection Procedures

Ethical approval was gained from the University of Auckland Human Participants Ethics Committee (reference number 018477), participating schools, parents, and students to take part in this research. Similar, ethical approval from the above parties was gained by IHAD to involve students in the programme.

The IHAD team was in charge of recruitment and coordination with the schools involved in the project regarding research days, as well as confirming the students who had been given permission to take part in the IHAD programme. Schools were also asked to conduct their e-asTTle testing at the beginning and end of each year, and provide a summary of the results to the research team to be matched with student questionnaire data. Across the four schools involved in the project, there were students who were away during data collection and testing, and others whose parental consent or IHAD involvement details were unknown, which led to collecting a smaller sample of students within and across schools than was originally planned.

Following the questionnaire administration procedures described earlier, and once e-asTTle data were received from schools, a master database was created for students, teachers and navigators to examine the extent to which questionnaire measures were reliably and consistently answered. This was an important quality control step to undertake to ensure that all items were relevant, and easy to understand especially given the young age of some of the students.

Means, standard deviations, and percentages of agreement were calculated for the questionnaire factors and items. The research team will be able to analyse the data using more complex analyses once the end-of-year data is collected, which will enable examining potential changes in student beliefs and achievement over the first year of the programme.

PRELIMINARY FINDINGS

Student Demographics

A total of 200 students were surveyed in the first phase of the project from all four participating schools. Tables 3 through to 6 describe the demographics of these students. Overall, the majority of students were in Year 6 or below (68%) and self-identified as Māori (76.5%). There was an equal split of genders (50.5% boys) across the sample.

Table 3: Number of student surveys gathered by school

	Count	Percentage
Totara Grove Primary	82	41%
Tikipunga High	54	27%
Tikipunga Primary	48	24%
Te Kura Otangarei	16	8%
Total	200	100%

Table 4: Student ethnic demographics

	Count	Percentage
Māori	153	76.5%
NZ European	33	16.5%
Pasifika	7	3.5%
Other or missing	6	3%
Asian	1	0.5%
Total	200	100%

Table 5: Student gender demographics

	Count	Percentage
Male	101	50.5%
Female	97	48.5%
Other or missing	2	1%
Total	200	100%

Table 6: Breakdown of student numbers by year level

	Count	Percentage
Year 3	19	9.5
Year 4	39	19.5
Year 5	37	18.5
Year 6	41	20.5
Year 7	28	14.0
Year 8	23	11.5
Year 9	13	6.5
Total	200	100%

Student Achievement

Student e-asTTle data was analysed alongside the e-asTTle norm and curriculum expectation score for each year level. These norms for maths and reading are provided for four time points in the year and published online to ensure that teachers interpret e-asTTle scores relative to the student's curriculum and year level. For example, if a Year 4 student scored 1351 in a reading test, and the e-asTTle norm for Year 4 is 1301, then a positive difference of 50 suggests that the student scored 50 points above the expected score for any Year 4 student nationally at that particular time of year. Conversely, if a Year 6 student obtained the same score of 1,351 in a reading test, and the e-asTTle norm for Year 6 is 1,403, then a negative difference of 52 implies that the student is 52 points below the expected score for a Year 6 student nationally. Therefore, the achievement results will be presented as deviations from the national norms in reading and maths (i.e., positive or negative scores in relation to national means). It must be noted that these results assume schools have set the tests at the appropriate curriculum level for each student, provided a sufficient number of questions per test for students to answer, and have marked all test items.

Table 7 below contains the breakdown of the reading achievement of students by year level, and suggests that, overall, students scored 131.25 points *below* the expected reading score for their year level. However, the standard deviation (SD) suggests that there is a wide range of scores with some students scoring well below the mean but some scoring well above.

Table 7: Reading achievement scores presented as differences from the average national score by year level

Reaching achievement by year level	M	SD
Year 3 (n = 19)	-226.29	122.42
Year 4 (n = 39)	-171.82	134.31
Year 5 (n = 37)	-168.85	146.91
Year 6 (n = 41)	-68.21	117.61
Year 7 (n = 28)	-102.29	88.39
Year 8 (n = 23)	-60.20	72.27
Year 9 (n = 13)	-150.54	133.93
Overall Reading achievement (n = 200)	-131.25	131.14

Similarly, Table 8 below contains the breakdown of the maths achievement of students by year level, and suggests that students scored 110.95 points *below* the expected maths score for their year level. However, again, the standard deviation is large suggesting large variability among students.

Table 8: Maths achievement scores presented as differences from the average national score by year level

Maths achievement by year level	M	SD
Year 3 (n = 19)	-189.78	168.48
Year 4 (n = 39)	-99.97	162.95
Year 5 (n = 37)	-110.70	126.07
Year 6 (n = 41)	-79.72	116.77
Year 7 (n = 28)	-102.07	114.56
Year 8 (n = 23)	-104.06	116.56
Year 9 (n = 13)	-159.15	136.40
Overall Maths achievement (n = 200)	-110.95	136.55

Student achievement scores suggest the importance of developing numeracy and literacy capabilities within students early on to avoid repeated patterns of below average achievement over time. Such scores also emphasise the importance of tracking student performance and setting academic goals that teachers, parents, and navigators can scaffold.

Student Questionnaire Data

Cronbach's alpha reliability test was first used to determine the extent to which students consistently responded to items measuring the factors detailed in Table 9 below. Factors with an alpha between the values 0 and 0.60 indicate unreliable factors, whereas those between 0.60 and 1 indicate acceptable levels of reliability and can therefore be interpreted with confidence. These higher alpha scores tell us that all items within the factor are measuring the same construct, that is, they can be used reliably. Of the 25 factors, three in particular demonstrated poor reliability below the 0.60 threshold: Trust in people, fixed mindsets, and growth mindsets. In other words, items measuring these factors were either too hard for students to understand or did not provide robust information. It is suggested that these factors and their corresponding factors are dropped in future phases of data collection.

With respect to the socio-emotional climate of learning, students rated highly the levels of academic and personal support provided by teachers, parents, and navigators, as indicated by the mean scores above the mid-point and close to the maximum value. The only exception is student ratings of their own academic competence (Mean = 3.79, SD = 0.82) which appears to be lower than other factors in this category. Therefore, it would be interesting to see whether student ratings of their own competence change significantly by the end of the academic year.

A similar pattern was found when calculating the mean values of student ratings of school and teacher-related feelings, and attitudes. Generally, these factors were highly scored by students.

In relation to time attitudes, students were asked to indicate how they viewed their future versus current life, and whether they viewed these as positive or negative. Again, students seemed to be generally positive about both the present and future, and reported relatively lower levels of negative attitudes towards their present and future lives.

Students also reported generally positive levels of emotional and behavioural engagement at school, as evident by the mean scores of around 4 (i.e., mostly true or positive). Therefore, the challenge for IHAD and schools is to either help sustain or enhance student engagement to maximise learning time.

Lastly, students reported generally positive levels of self-expectation, self-efficacy, and peer relations self-concept. That is, students seemed to believe that they were capable of achieving, could do well in school, and had positive relations with their peers. The challenge within this theme of factors would be to encourage students to talk more about their life and academic aspirations with teachers, navigators, family, and friends.

Table 9: Student questionnaire factors organised by theme

Factor	M	SD
Socio-emotional Climate		
Teacher Academic Support	4.51	0.73
Teacher Personal Support	4.14	0.90
Parents Academic Support	4.49	0.64
Parents Personal Support	4.39	0.67
Navigator Academic Support	4.36	0.72
Navigator Personal Support	4.40	0.73
Satisfaction	4.01	0.90
Academic Competence	3.79	0.82
Attitudes and Values		
Feelings toward teachers	4.34	0.79
Feelings toward school	4.08	0.90
School Utility Value	4.34	0.75
Valued Involvement	3.92	0.72
Trust in people (<i>not reliable</i>)	3.59	0.70
Present and Future Time Attitudes		
Time attitude: Future Positive	4.13	0.95
Time attitude: Future Negative	2.55	0.99
Time attitude: Present Positive	4.20	0.79
Time attitude: Present Negative	2.61	1.03
School Engagement		
Emotional engagement	4.13	0.76
Behavioural engagement	4.13	0.78
Mindsets		
Growth mindset (<i>not reliable</i>)	4.13	0.80
Fixed mindset (<i>not reliable</i>)	3.69	0.84
Self-beliefs and aspirations		
Self-efficacy	4.02	0.78
Self-expectations	4.02	0.80
Talking about aspirations	3.46	1.20
Peer relations self-concept	3.78	0.89

Note. Responses ranged from 1 for 'False', 3 for 'Neutral', to 5 for 'True'.

Teacher Data

A total of 27 teachers responded to their survey on teacher beliefs and perceptions of change. As some schools only had 2 teachers responding to the survey, results were aggregated and presented across the 27 teachers and not presented by school.

Teacher Sense of Efficacy Beliefs (Degree of Influence)

Teachers responded to a range of items with the stem: “How much can YOU do to...” on a 6-point Likert scale ranging from ‘no influence’ to ‘a great deal’. These items were designed to measure teachers’ sense of efficacy in three areas: student engagement, instructional practices, and classroom management.

In this section, we report ‘**no influence**’ for those who indicated their inability in a certain instructional area or strategy, ‘**Low influence**’ for those who indicated having very little or little influence, ‘**Moderate influence**’ for those who indicated some and quite a bit of influence, and ‘**High influence**’ for those who indicated a great deal of influence, as illustrated in the figure below with original response options in the top row, and our summary reporting categories in the bottom row:

Nothing (1)	Very little (2)	Little influence (3)	Some influence (4)	Quite a bit (5)	A great deal (6)
No influence	Low influence		Moderate influence		High influence

The 6-point Likert scale was reduced to 4 points because of the low participation rate of teachers and in order for us to provide meaningful interpretations of the results. Table 10 below details the degree of influence teachers reported having in each of the three teacher efficacy areas listed above. What was interesting to reveal was that teachers mainly reported having a moderate influence on all three areas of efficacy, with no specific strategies rated above 70%.

Table 10: Degree of teacher influence on student engagement, instructional practices, and classroom management

Stem: How much can YOU do to...	No influence	Low influence	Moderate influence	High influence
Get students to believe they can do well?	0%	0%	37%	63%
Make your expectations clear about student behaviour?	0%	0%	40.7%	59.3%
Establish a classroom management system with your students?	0%	0%	46.2%	53.8%
Provide an alternative explanation/example when students are confused?	0%	3.8%	50%	46.2%
Include a variety of assessment strategies in your teaching?	0%	7.7%	53.8%	38.5%
Respond to difficult questions from your students?	0%	0%	66.7%	33.3%
Assist families in helping their children do well in school?	0%	7.4%	63%	29.6%
Get through to the most difficult students?	0%	3.7%	77.8%	18.5%
Overall Efficacy in Student Engagement	0%	2.8%	54.4%	42.4%
Establish routines to keep activities running smoothly?	0%	0%	40.7%	59.3%
Adjust your reading lessons to an appropriate level for individual students?	0%	3.8%	42.3%	53.8%
Foster student creativity?	0%	0%	61.5%	38.5%
Keep a few problem students from ruining an entire reading lesson?	0%	3.8%	65.4%	30.8%
Control disruptive behaviour in the classroom?	0%	0%	73.1%	26.9%
Implement alternative strategies and teaching methods in your classroom?	0%	3.8%	69.2%	26.9%
Motivate students who show low interest?	0%	0%	77.8%	22.2%
Help your students think critically?	0%	7.4%	70.4%	22.2%
Overall Efficacy in Instructional Strategies	0%	2.4%	62.6%	35.1%
Help your students to value learning?	0%	0%	55.6%	44.4%
Craft good questions for your students?	0%	3.8%	61.5%	34.6%
Get children to follow classroom rules?	0%	0%	66.7%	33.3%
Provide appropriate challenges for very capable students?	0%	3.8%	69.2%	26.9%
Gauge student comprehension of what you have taught?	0%	0%	76.9%	23.1%
Respond to defiant students?	0%	3.7%	74.1%	22.2%
Improve the understanding of a student whose achievement is below expected norms?	0%	3.7%	77.8%	18.5%
Calm a student who is disruptive or noisy?	0%	3.7%	77.8%	18.5%
Overall Efficacy in Classroom Management	0%	2.3%	70%	27.7%

Teacher Perceptions of School Change Orientation

Teachers responded to a range of items designed to measure their perceptions of school change orientation. These items were scored on a 6-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. Because of the small sample of teachers who responded, percentages of agreement versus disagreement will be reported.

In this section, we report '**disagreement**' for those who indicated strong, moderate, or some disagreement, '**agreement**' for those who indicated strong, moderate, or some agreement, as illustrated in the figure below with original response options in the top row, and our summary reporting categories in the bottom row:

Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Disagreement			Agreement		

Table 11 below shows the percentages of agreement versus disagreement with each of the items in this section. Many of the items had a percentage of agreement above 70%, with some having 100% agreement. The only item with 50% agreement and disagreement was:

- "The rhetoric of change in this school is strong, but actual change is negligible."

Therefore, the challenge for IHAD and schools is to raise and encourage community push for innovation (percentage of agreement = 75%), and further investigate ways to impact school practices beyond random or small effects.

Table 11: Teacher perceptions of school change orientation

Item	Disagreement	Agreement
School Openness to Change		
The staff in this school embrace new ideas.	0%	100%
In this school, the staff relish innovation.	0%	100%
In this school, the staff welcome change.	0%	100%
In this school, teachers are receptive to substantial changes.	8%	92%
Teachers in this school readily accept changes to new rules and procedures.	8.3%	91.7%
The rhetoric of change in this school is strong, but actual change is negligible.	50%	50%
In this school major change is resisted.	79.1%	20.9%
Staff in this school would rather fight than switch.	86.4%	13.6%
Teachers in this school reject all but minimal changes.	87.5%	12.5%
Principal Openness to Change		
The principal in this school embraces change initiatives.	0%	100%
In this school, the principal is committed to major change.	8.4%	91.6%
In this school, the principal is slow to change.	91.6%	8.4%
In this school, the principal baulks at new suggestions.	91.6%	8.4%
In this school, the principal often resists changes suggested by parents.	95.7%	4.3%
In this school, the principal is committed to no change.	100%	0%
Community Press for Change		
Teachers in this school are open to ideas of the parents.	0%	100%
Most community members are happy with this school.	0%	100%
In this school, suggestions by the PTA often produce change.	0%	100%
The community pushes for innovation.	25%	75%

Teacher Beliefs about Learning

Teachers responded to a range of items designed to measure their beliefs about teaching, learning, and students. These items were scored on a 6-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. Again, because of the small sample of teachers who responded, percentages of agreement versus disagreement will be reported.

In this section, we report '**disagreement**' for those who indicated strong, moderate, or some disagreement, '**agreement**' for those who indicated strong, moderate, or some agreement, as illustrated in the figure below with original response options in the top row, and our summary reporting categories in the bottom row:

Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Disagreement			Agreement		

Table 12 below shows the percentages of agreement versus disagreement with each of the items in this section. Many of the items had a percentage of agreement above 70%, with some having 100% agreement. Interestingly, the two items below were similarly worded yet had 80.8% and 53.9% percentages of agreement respectively:

- “I like my work best when I can do it perfectly without any mistakes.”
- “I like my work best when I can do it really well without too much trouble.”

Previous literature suggests that higher levels of agreement with such an item implies a fixed mindset and the view that intelligence is unchangeable, and lower levels of agreement imply a growth mindset and the view that intelligence is changeable. Therefore, it would be interesting to further investigate teachers’ rationale behind their responses to the above two items.

Table 12: Teacher beliefs about teaching, learning, and students

Item	Disagreement	Agreement
Teachers' Academic Support		
I want my students to do their best school work.	0%	100%
I like to help my students learn.	0%	100%
I care about how much my students learn.	0%	100%
I like to see my students' work.	0%	100%
Teachers' Personal Support		
I really care about my students.	0%	100%
I care about my students' feelings.	0%	100%
I like all my students equally.	18.6%	81.4%
It is important for me to be friends with my students.	26%	74%
Growth Mindset		
I like work that I'll learn from even if I make a lot of mistakes.	0%	100%
No matter how much intelligence you have, you can always change it a good deal.	0%	100%
When something is hard, it just makes me want to work more on it, not less.	7.5%	92.5%
I like my work best when it makes me think hard.	18.6%	81.4%
Fixed Mindset		
I like my work best when I can do it really well without too much trouble.	19.2%	80.8%
I like my work best when I can do it perfectly without any mistakes.	46.1%	53.9%
You can learn new things, but you cannot really change your basic level of intelligence.	88.9%	11.1%
To tell the truth, when I work hard, it makes me feel as though I'm not very smart.	92.6%	7.4%

Navigator Data

All 6 navigators responded to their survey on beliefs and perceptions of change, and beliefs about teaching and learning. Their responses were aggregated and are presented next.

Navigator Sense of Efficacy Beliefs (Degree of Influence)

Navigators responded to a range of items with the stem: “How much can YOU do to...” on a 6-point Likert scale ranging from ‘no influence’ to ‘a great deal’. These items were designed to measure navigators’ sense of efficacy in three areas: student engagement, instructional practices, and classroom management.

In this section, we report ‘**no influence**’ for those who indicated their inability in a certain instructional area or strategy, ‘**Low influence**’ for those who indicated having very little or little influence, ‘**Moderate influence**’ for those who indicated some and quite a bit of influence, and ‘**High influence**’ for those who indicated a great deal of influence, as illustrated in the figure below with original response options in the top row, and our summary reporting categories in the bottom row:

Nothing (1)	Very little (2)	Little influence (3)	Some influence (4)	Quite a bit (5)	A great deal (6)
No influence	Low influence		Moderate influence		High influence

Table 13 below details the degree of influence navigators reported having in each of the three efficacy areas listed above. What was interesting to reveal was, whereas teachers reported moderate-to-high levels of influence, navigators clearly identified themselves as having moderate influences on all three areas of efficacy.

Table 13: Degree of navigator influence on student engagement, instructional practices, and classroom management

Stem: How much can YOU do to...	No influence	Low influence	Moderate influence	High influence
Get dreamers to believe they can do well?	0%	0%	83.3%	16.7%
Provide an alternative explanation/example when dreamers are confused?	0%	0%	83.3%	16.7%
Establish effective management with your dreamers?	0%	0%	100%	0%
Assist families in helping their children do well in school?	0%	0%	100%	0%
Use a variety of assessment strategies?	0%	16.7%	83.3%	0%
Overall Efficacy in Student Engagement	0%	3.3%	90%	6.7%
Motivate dreamers who show low interest?	0%	0%	83.3%	16.7%
Control disruptive behaviour of your dreamers?	0%	0%	100%	0%
Implement alternative strategies with your dreamers?	0%	0%	100%	0%
Overall Efficacy in Instructional Strategies	0%	0%	94.4%	5.6%
Help your dreamers to value learning?	0%	0%	83.3%	16.7%
Craft good questions for your dreamers?	0%	0%	83.3%	16.7%
Get dreamers to follow classroom rules?	0%	0%	100%	0%
Calm a dreamer who is disruptive or noisy?	0%	0%	100%	0%
Overall Efficacy in Classroom Management	0%	0%	91.7%	8.4%

Navigator Perceptions of IHAD Change Orientation

Navigators responded to a range of items designed to measure their perceptions of IHAD change orientation. These items were scored on a 6-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. Because of the small sample of navigators who responded, percentages of agreement versus disagreement will be reported.

In this section, we report '**disagreement**' for those who indicated strong, moderate, or some disagreement, '**agreement**' for those who indicated strong, moderate, or some agreement, as illustrated in the figure below with original response options in the top row, and our summary reporting categories in the bottom row:

Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Disagreement			Agreement		

Table 14 below shows the percentages of agreement versus disagreement with each of the items in this section. Items with a 70% percentage of agreement (or disagreement if the item was negatively worded) were:

- "Navigators in this project readily accept changes to new rules and procedures."
- "In this project, major change is resisted."
- "Navigators in this project would rather fight than switch."
- "The management team is committed to major change."
- "In this project, the management team is slow to change."

Table 14: Navigator perceptions of IHAD change orientation

Item	Disagreement	Agreement
Navigator openness to change		
The rhetoric of change in this project is strong, but actual change is negligible.	0%	100%
In this project, navigators are receptive to substantial changes.	0%	100%
In this project, the navigators cherish innovation.	0%	100%
In this project, all navigators welcome change.	16.7%	83.3%
The navigators in this project embrace new ideas.	16.7%	83.3%
Navigators in this project readily accept changes to new rules and procedures.	50%	50%
In this project, major change is resisted.	66.7%	33.3%
Navigators in this project would rather fight than switch.	66.7%	33.3%
Navigators in this project reject all but minimal changes.	100%	0%
Management openness to change		
The management team embraces change initiatives.	0%	100%
The management team is committed to major change.	33.3%	66.7%
In this project, the management team is slow to change.	50%	50%
In this project, the management team often resists changes suggested by us.	83.3%	16.7%
The management team is committed to no change.	100%	0%
The management team baulks at new suggestions.	100%	0%

COMMENTS ON FINDINGS AND RECOMMENDATIONS

The baseline data collection phase constitutes a promising and exciting start to the current longitudinal programme. Preliminary analyses revealed a range of results characterised by highly positive student views, strong efficacy beliefs by navigators and teachers, as well as clear areas for further discussion with various stakeholders involved in this project.

It must also be noted that, once end-of-year data is collected, the research team will be able to undertake additional analyses with the qualitative components of the questionnaire, as well as examine whether navigator expectation beliefs are related to students' end-of-year achievement outcomes. We also anticipate the reporting of the leadership evaluation of the programme to be included in the next milestone report once all data has been collected by the end of 2017.

This round of data collection helped us establish robust measures that can be used longitudinally, across year levels and schools, and also enabled the IHAD team to reflect on programme design, research logistics, and scope control. While the research team believes in the efficacy of the IHAD programme and goals, critical work is needed to guarantee the sustainability of this initiative, and to ensure that its success is reflected in student outcomes.



Recommendations from Milestone 1

1. Establish systems to closely track and monitor students' literacy and numeracy capabilities, via e-asTTle and other goal setting tools. This includes ensuring e-asTTle testing is conducted at the appropriate curriculum levels, and that teachers, parents, and navigators are well aware of ways in which they can support the child's needs and learning progress
2. Remove measures of trust and mindset from the student questionnaires
3. Establish systematic procedures to track children who are enrolled in IHAD, those with consent pending, and those with no consent, and set monthly dates to review or update IHAD student lists
4. Increase communication within and across schools regarding project procedures, navigator responsibilities, and ways in which navigators can check in on students' academic progress
5. Update navigators regularly on project procedures, and develop ways in which navigators are involved in such procedures and/or activities

Thank you once again to the trustees and supporters of the I Have A Dream Charitable Trust for your commitment and involvement with this important work. You are making a difference to the educational and life outcomes for all participating children.

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