Maungaraki School
1-1 Devices

18 Month Success Measures Report, February 2016

1-1 Devices Success Measures Summary

In our initial roll out of the 1-1 device initiative our aim was to raise **student achievement** by developing the principles of **Ubiquity** (*anywhere, anytime, any pace, any people learning*), **Agency** (*the power to act; informed, empowered & enabled learners)* and **Connectedness** (*edgeless education and connected minds)*. To help us track our progress in these areas we collected and collated information from achievement data, students, parents and teachers at the end of 2015, 18 months after we first introduced Chromebooks. This collated information is included in the attached appendices.

So what have we learnt from the data?

- Student achievement has accelerated over the last year in all 3 national standards areas.
- We are catering well for high achievers with a significant number of children in the 'above' group.
- This data reflects positive improvements in all three areas of agency, ubiquity and connectedness.
- Student confidence and motivation to learn is high.
- The common parent concerns are around screen time, the loss of traditional skills (particularly handwriting) and the potential for inappropriate use (including cyber bullying).
- The property modification and subsequent change to collaborative learning environments has blurred the parameters of this data. Comments relate to both the digital devices and individual learning pathways / collaborative classroom spaces. While we acknowledge that this makes it difficult to assess which of these things has an influence on student achievement, it was always our intention to use the devices as a tool to transform teaching practices. We suspect that it is the combination of these things that is contributing to the acceleration of student achievement.
- We could have done better at communicating the philosophy and research behind these teaching changes with parents, as we suspect that pockets of concern in this area have contributed to the lowered confidence of parents.

Now what do we need to do?

- Continue with open and transparent approaches to sharing our teaching and learning practices with parents; holding open days, information evenings, and building relationships with parents as per the annual plan.
- Redistribute information to support parents in tracking and monitoring their child's learning and online useage at home.
- Continue to ensure a balance of screentime and non screen time during the school day.
- Continue to incorporate opportunities for children to develop and use handwriting in daily work.
- Continue to actively teach, promote and remind children of their responsibilities in relation to digital citizenship and kawa of care (the whole school focus on Kia Kaha will support this with anti bullying messages in Term 1).
- Teachers will continue to monitor students on-line activity in line with our GAFE (Google Apps for Education) guidelines and kawa of care.
- Develop a 'risk' register to help us track patterns and trends in relation to breakages and inappropriate use (this has already been initiated and will be developed with the support of the Tech Advisory Group parents).
- Review purchase options for 2017 in light of the reduced number of people purchasing through school and increase in retail availability.
- Continue involvement in TLIF (Teacher Lead Innovation Fund) Research project to ensure teaching practices meet needs of all learners (Totara Hub) Share results with BOT and wider community.

Literacy / Numeracy Data

Commentary:

The first table shows all children who have National Standards Judgements in 2015, the second table (shift data) only reflects those students who have been at the school for both years of National Standards Judgements.

While the numbers of students achieving 'at or above' the standard is similar in all three areas, there is a higher proportion of students achieving above the standard in digital classes. This difference is particularly significant in Writing and Maths. This indicates that changes to our teaching practices are continuing to extend our more capable learners.

We are thrilled that we are seeing consistent acceleration of students in the digital classes through positive shifts that are accelerating faster than the shifts we see in non-digital classrooms.

National Standards Data	Reading	Writing	Maths
Digital Classes (Years 5 - 8)	87.7% at or above the standard (41% above)	84% at or above the standard (32% above)	87.3% at or above the standard (37.3% above)
Rest of School (Years 1 - 4)	89.7% at or above the standard (38.2% above)	88% at or above the standard (16.4% above)	86.8% at or above the standard (26.5% above)

Shift Analysis (shift from OTJ 2014 - OTJ 2015)	Reading	Writing	Maths
Digital Classes	+2.9% 'at or above' +2.9% above	+ 4% 'at or above' + 5% above	+ 8.9% 'at or above' +14.8% above
Rest of School	- 1.2% 'at or above' +5.8% above	+ 1.5% 'at or above' = (0shift) above	-7.3% 'at or above' = (0shift) above

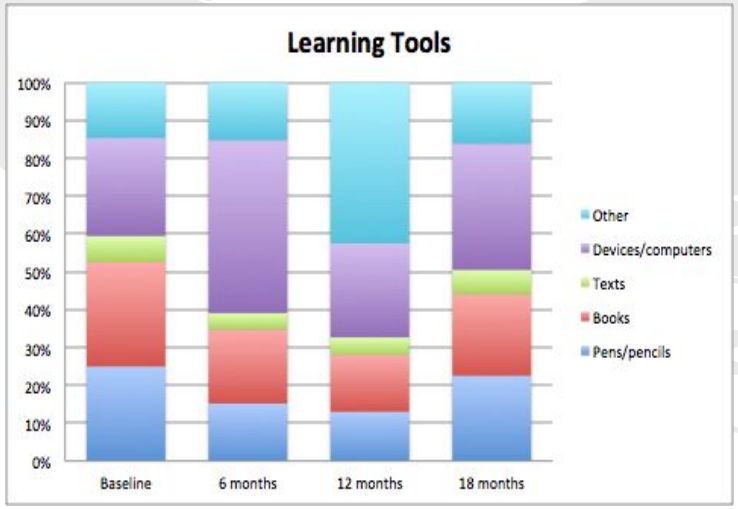
Learning Maps

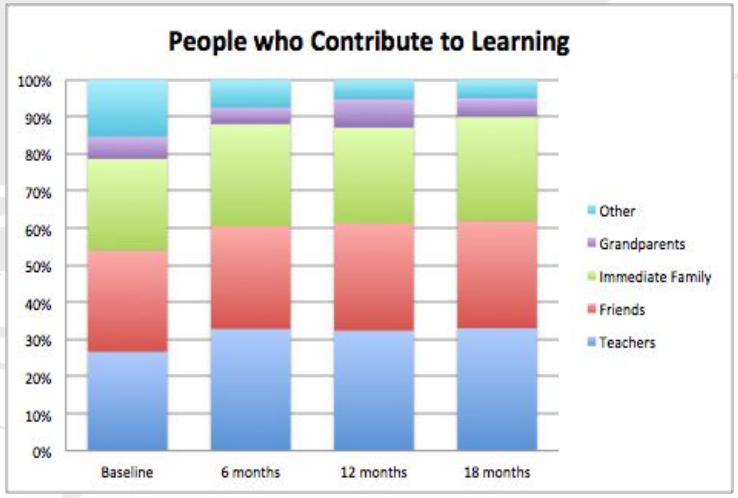
(33 responses from students who have been in the digital classrooms since they started in 2014)

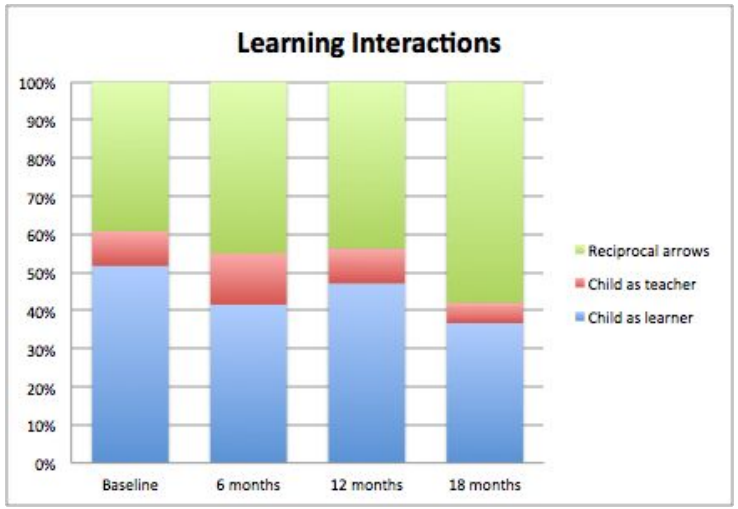
Learning maps are a visual representation of the learning environment as learners see it. Children are asked to draw pictures of themselves and then diagrammatically show:

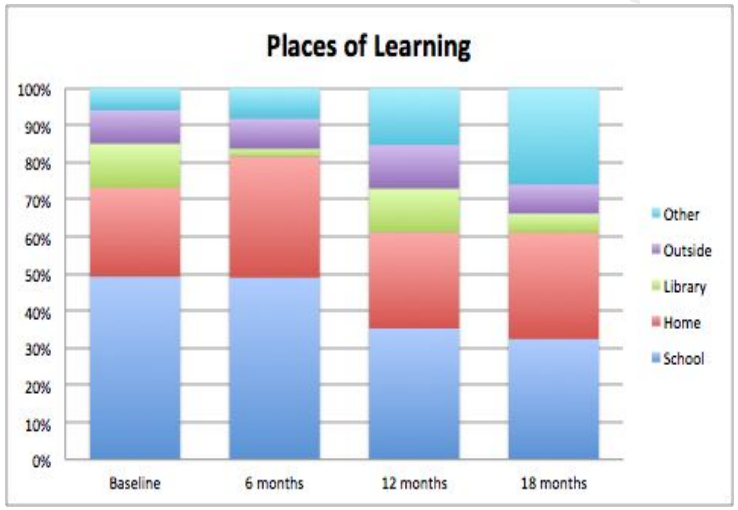
1. The other people that are involved in helping them to learn,
2. The type of learning interactions that happen (eg; do they perceive themselves as givers or receivers of learning in different interactions)
3. The tools that help them to learn
4. Their preferred places of learning

These graphs shows the changes in perceptions of learning since the time the Chromebooks were introduced 18 months ago.









Analysis:

It is interesting that the perception of learning tools used has come right back to the baseline. This indicates that learners still see the value in using a range of tools and that devices are just one of these tools.

The increasing number of reciprocal interactions over time indicates an increasing sense of agency as children see themselves as both learners and teachers.

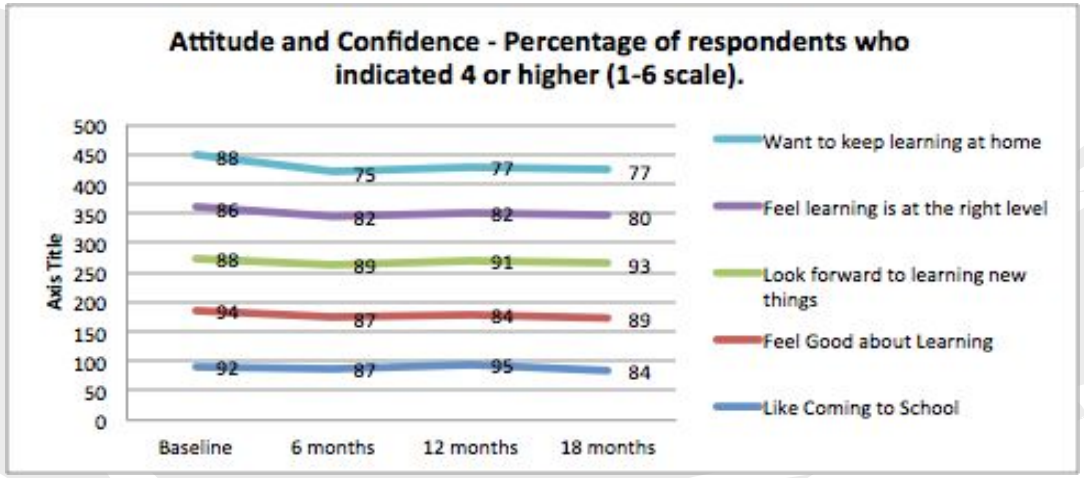
There is little change in the proportion of people involved in their learning - friends, family and teachers sharing equal importance. It is interesting to note that 'other' has reduced significantly.

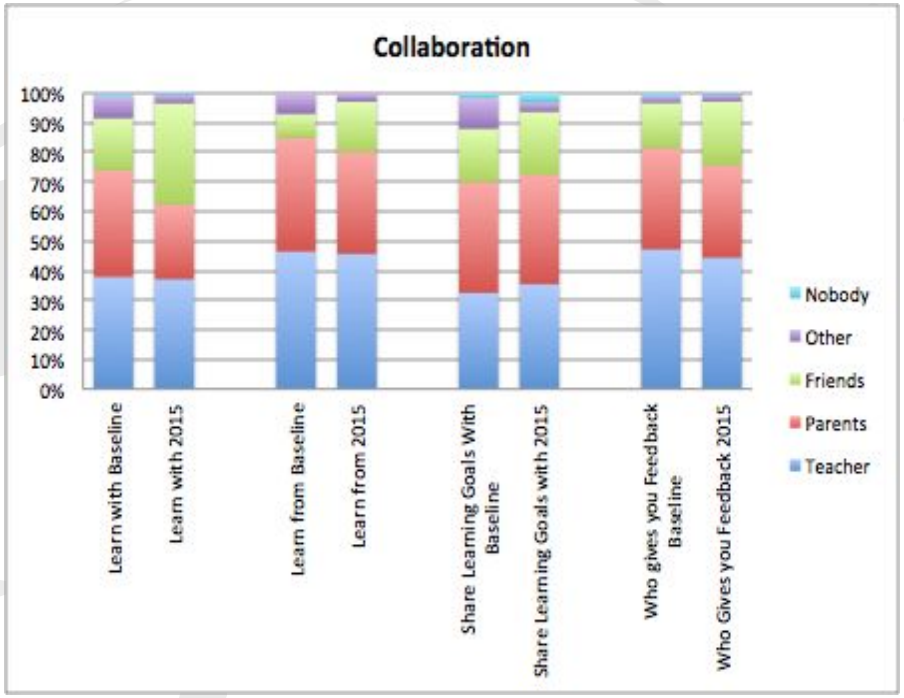
The change in balance of places that children perceive they can learn indicates a move towards ubiquity, the idea that learning can and does happen anywhere.

Student Voice Surveys

(109 responses from all students in Years 5 - 8)

This data shouldn't be treated as an 'apples with apples' comparison as only 33 of the respondents in 2015 were in the original data set from 2014. It is still a useful indicator of general patterns and trends.





Analysis:
Although still very high, there has been a slight drop in students **Attitude and Confidence** across the key areas we measure.

Children's **collaboration** with peers has increased across all dimensions we measure. **Collaboration** with parents and teachers has remained relatively consistent.

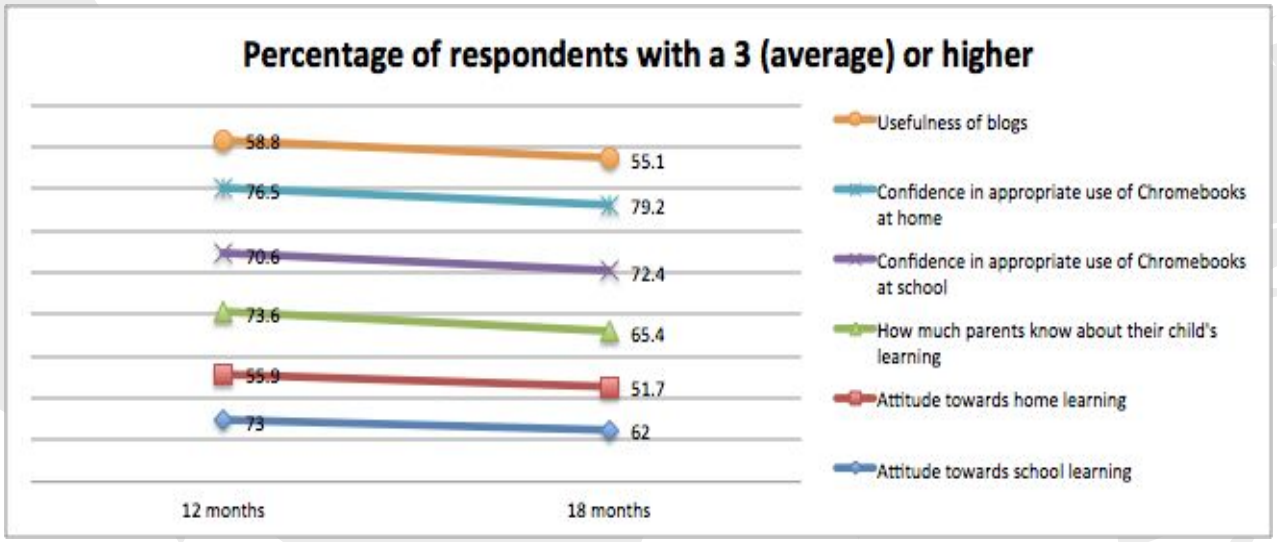
Student Agency data and comments (not shown graphically) demonstrate that students continue to have a strong understanding of what they learn and what they need to do to achieve their goals. Children also demonstrated a stronger sense of ownership with an increase from 55% (baseline) to 73% (end of 2015) of children indicating that they share the responsibility for deciding what they learn.
We are also pleased that students are now drawing on a wider range of strategies to assist themselves when they get stuck in their learning.

'What helps you learn?' Common themes:
18 x Chromebooks
17 x Collaboration
13 x Clear explanations
14 x Pathways
10 x No distractions

There were many other comments in this space showing not only the range of learning styles we cater for, but that children have clear and specific understanding of their own learning styles and can articulate what they need to learn at their best.

Parent Survey

(29 Responses from a possible 103 families)



Analysis of graph:

Overall this tells us that parents confidence in the use of Chromebooks to support learning has dropped slightly in all areas. Themes from the comments attached to this data show that:
14 parents are happy with how chromebooks are being used to support learning at home
4 parents feel that their child is not using the chromebook effectively at home
5 parents indicate that their child likes the self managing style of the learning that is happening
The number of parents accessing their child's work on Chromebooks (either to find out more about learning or to supervise online activities has increased since 2014. About 25% of families do this regularly (at least weekly)
The number of families who don't know how to access their child's account has reduced, however still sits at 26.5%

Positive impacts parents have seen (common themes):

- Students have a greater sense of responsibility for their learning.
- Students have an increased skill level both in their use of technology and in their approaches to learning.
- Students have an increased enthusiasm and motivation for learning.

Negative impacts parents have seen (common themes):

- Concern has been expressed about the amount of screen time.
- Concern is expressed about the loss of traditional skills such as handwriting.
- Online access creates a platform for distraction and antisocial behaviours

Common theme from the 'Other Comments' section:

- Some children require more support to operate effectively in the collaborative learning spaces.

Teacher Summary

P Plus	**M** Minus	**I** Ideas for improvement
Students ability to publish/edit/collaborate/research quickly and effectively. Connection with each other/teachers/primary resources/wider world. The increased amount of collaboration within the classroom. Students confidence with, and positivity about using technology. Students confidence with their own learning and an understanding of next steps. For example, in writing they have instant access to models of writing and can 'see' what they need to do next. Using the team teaching model has allowed both teachers to have more time to spend with individual students and to target the teaching of small groups.	Students engaging with websites/games irrelevant to their learning. Parents and students blaming the chromebook for their child's behaviour. The apps that we use are often 'clunky' and difficult to manage. For example, adding photos to Blogger is a 3 step process. Not device related, but found some students (particularly high achievers) saw pathways as ticking off minimum requirements and weren't always motivated to extend themselves.	Refocus on Chromebooks as a tool within the classroom Although the GAFE is the tool of choice, there are other tools that we could/should be using to extend learning, mostly on the creative side (stop/start animation, programming, robotics, filming) Shifting focus of pathways time to a mix of quantity and quality of work, not just quantity. Develop more effective ways to help kids independently self-assess whether their work is a high enough quality?

Logistics & Anecdotal Measures

Participation STATS	Provide Own Chromebook	Purchase through us	Rent From Us	Uses Donated Machine	MOE Assistive Technology	Not Participating
2014 (Yr 5-6)	26	6	13	2	1	4
2015 (Yr 5-8)	49	20	34	2	2	1
2016 (Yr 5-8)	67	10	25	1	2	0

- It is great to have 100% of families across Years 5 - 8 participating in 2016.
- As expected, rentals have dropped off this year as Year 8 who were only involved for one year have moved on to High School. Surplus rental machines will be utilised in Rooms 7&8 to supplement Year 3&4 programmes.
- Fewer families are purchasing through us than expected. It may be worth reviewing this service in light of the number of retailers offering Chromebook deals with their 'Back to School Specials' in January.

BREAKAGES AND INAPPROPRIATE USE (over the past 18 months):

- From our anecdotal records there were three breakages in Rooms 9&10 and 2 in the Totara Hub over the course of 18 months. In all cases these breakages were the result of children not following the Kawa of Care.
- Incidents of inappropriate use have been minimal, these include 1 inappropriate photograph being accidentally discovered in a google search, 1 child using facebook during class time, 1 hurtful video being posted on a private You Tube channel. While we have been notified by parents of a handful of cases of hurtful emails being sent/received, these have not been on school accounts.
- 1 incident where a child sent an email to a friend talking about suicide was found during routine monitoring by a teacher and we were able to act quickly during a weekend to get help and support to the child and his family.

ANECDOTAL SUCCESS INDICATORS:

We have received considerable recognition and positive feedback from educators nationally and internationally:

- We have hosted visits from teachers and school leaders from schools across Wellington and from as far afield as Christchurch who are keen to learn from our experiences.
- We have hosted representatives from the New South Wales Education Board who have taken back ideas from our teaching practice to share with others.
- We took a group of students to present to education leaders at the National Learning and Change Hui in Auckland. Feedback on this from participants was very positive with several schools making follow up contact and visiting us after the hui.
- Two staff members have been invited to present at the 'Leading a Digital School' conference in Melbourne in 2016.
- We have been invited to be a part of the MOE Digital Toolkit Project with teachers interviewed for PLD videos to be used for teachers across the country (only 2 other schools have been invited to be part of this at this stage - Stonefields and Amesbury)
- Our ERO report (and verbal feedback provided during the review process) affirmed that we are on the right track.

We also note that from our 2015 Year 8 cohort moving on to high school, we have had the highest number of students (7) ever selected to be part of the top stream Year 9 class. We are usually lucky to have 2 or 3 students selected for this class and to have 7 chosen is a great reflection on our programmes as fabulous preparation for High School.