

Rongomai School: Computers in Homes and Effective Writing

INTRODUCTION

Rongomai is a decile 1¹ year 1-6 primary school, with an enrolment of 150-170 children from approximately 110 families. Ethnic composition is: Maori 30%, Cook Islands Maori 30%, Samoan 30%, Tongan 7%, Niuean 3%. It serves a neighbourhood in Otara that is at the lowest end of the socio-economic deprivation spectrum². School families, many of them single parent families, struggle with the stresses and tensions of poverty on a daily basis. Like other low decile schools, Rongomai School has to find ways of working proactively to prevent these stresses and tensions impinging negatively on children's education and development. Present Principal Tina Voordouw, took up the role in 2004, bringing with her professional experience gained in a diversity of urban and rural schools, including other South Auckland decile 1 schools. When she first commenced at Rongomai in 2004, the school's roll had dwindled from 720 in the late 1970s to 120. Rongomai School had a reputation for violence in the playground, as well as poor achievement. In December 2003, only 6% of children transitioning from Rongomai School to year 7 intermediate schooling were able to read at their chronological age level or better. The remaining 94% were lacking essential basic literacy skills. Reading and reading comprehension were key issues. This was despite the presence of two pre schools on site - a kohanga-reo and the Poetiare Cook Islands pre-school.

Tina Voordouw's approach was holistic, implying a need for the school and its community of families to work as partners in defining the issues and putting solutions in place. What was happening in the school was a reflection of a school community which lacked cohesion, as well as a lack of connection and shared vision between families and the school. Many of the parents still had unhappy memories of schooling which caused them to feel alienated. Children were

¹ Decile rank is determined by census data and indicates the extent to which the school draws its students from low socio-economic communities. Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities, whereas decile 10 schools are the 10% of schools with the lowest proportion of these students. www.mined.govt.nz

² White P., Gunston J., Salmond C., Atkinson J., Crampton P. (2008). Atlas of Socioeconomic Deprivation in New Zealand: NZDep2006. Wellington: Ministry of Health.

picking up on their parents' feelings of alienation, a sense of disillusionment that education could make a difference for them and theirs, and a lack of hope for a better future. Some of the homes are without pen and paper. Parents also tended to underestimate the contribution that they could make. In the words of one mother who has a long association with Rongomai School, "I did not realise that parents need to work at home with the children. I thought my children's learning was a matter for the school to see to, not the family". The new Principal directed attention to building trust with the local community, fostering a shared vision of education as a path to a better future, and encouraging parents to become actively engaged in their children's education.

She introduced a new approach to teaching literacy - the Bannatyne Programme³. Having observed its use in a low decile school in Papakura, she was impressed with its effectiveness, most especially in helping disadvantaged and learning impaired children with poor prognoses for literacy achievement to learn to read and write. Developed by Alexander Bannatyne, it incorporates phonics, visual/spatial skills, motor/kinaesthetic skills, listening skills, comprehension and articulation skills and humour, among other elements. It is self-pacing and designed to be fun. It claims a track record of success with children ranging from gifted and mainstream beginner readers, through to those for whom acquisition of basic literacy is a major challenge (e.g. children with Attention Deficit Disorders, learning disorders, dyslexia, unmotivated and hyperactive students). The successful track record extends to children from non English speaking backgrounds, those from disadvantaged home backgrounds and teenage and adult poor readers.⁴

The Auckland Airport Community Trust provided the financial means for an important initiative aimed at strengthening home-school partnerships and showing parents how to better support their children's learning. A successful funding application to the AACT in 2005 and 2006 for *Pause, Prompt, Praise (PPP)* provided for the purchase of basic readers, sets of books for children to take home, and a parent-sized beanbag and a smaller child sized beanbag per family. The bean bags served the purpose of getting families to set aside a reading area in homes that were often sparsely furnished and with few comforts. They could also be moved to a quiet space in homes that were often noisy and busy. The beanbags and book sets to take home (children were offered a selection to choose from) were conditional on parent's participation in *PPP* training. Children, excited at the prospect of beanbags and books, naturally played their part in urging their parents to participate in the *PPP* training. The Duffy Programme⁵ adds to children's book collections each month. In 2007,

³ <http://www.bannatynereadingprogram.com/home.htm>

⁴ <http://www.bannatynereadingprogram.com/home.htm>

⁵ www.booksinhomes.org.nz

there was a big influx of parents to the PPP programme. Rongomai teachers and teacher aides commented on a noticeable difference in on-task learning behaviours between children who commence at the school with parents doing PPP training and newcomers who transfer from other schools.

Another early initiative was a Parent as First Teachers Programme (PAFT)⁶. Planning is underway to introduce HIPPY (Home Interaction Programme for Parents and Youngsters)⁷, dependant on financial resourcing. As a response to the level of violence that still pervades the local community, a Canadian Peace Foundation programme, Roots of Empathy (ROE), is being piloted in year 5- 6 classrooms. It is directed towards fostering caring behaviours and encouraging children to articulate feelings and emotions and to empathise. It revolves around bringing a baby into the classroom, the purpose being to communicate values and standards in a non-threatening way. Learning activities are incorporated, such as measuring and doing math calculations around weight and length, reading facial expressions from photographs, and putting feelings into words on paper.

A quite different and more basic initiative is a breakfast and lunch programme which operates sensitively to safeguard against children and parents feeling embarrassed or singled out.

Whereas systematic attendance records do not appear to have been kept prior to 2004, attendances are now monitored systematically, and unexplained or unjustified absences are followed up. Perfect class attendances are acknowledged at school assemblies. The local Truancy Services provide excellent back-up.

The main focus of this report, "Computers in Homes and Effective Writing" was made possible by a successful funding application to the AACT in 2007. The impacts of this particular project must be viewed within the total picture of an extremely disadvantaged community and initiatives and strategies introduced by a Principal with a vision emphasising strengths and collaboration, matched by the dedication and drive to bring it to fruition.

⁶ <http://www.minedu.govt.nz/educationSectors/EarlyChildhood.aspx>

⁷

https://www.sovereignsunshine.co.nz/index.php/charities/charity/great_potentials_foundation

PROJECT RATIONALE AND GOALS

By the time that the funding application was submitted to the AACT in March, 2007, Rongomai School was showing gains in reading achievement, with 71% of children reading at or above their chronological age by the end of their year 6 schooling (compared with 6% in December 2003). While the gains were impressive, and all the more so considering the time span, they were not construed as grounds for complacency. Writing and comprehension were of particular concern. Measured against national norms, *"across Rongomai School, 16% of our students are writing at their correct level, 76% are 1-2 years behind, and 8% are 3-4 years behind. ...Precious little writing goes on in the homes. They have no reason to write. Having a computer would change that."*⁸ At that time, only 10 of 110 school families had a computer. The school saw an opportunity in an offer from its sponsor, Westpac Bank, to give the school 'cleaned' 3-year old lap top and desk top computers which were due for replacement. If these computers could be placed in the homes of 100 school families, the main expense to be incurred would be in the purchase of software.

The project aim was to encourage use of computers by parents within the school community. The purpose was to accelerate progress in writing and in comprehension. An ongoing progression was envisaged, *"with computer skills and literacy going hand-in-hand... We are seeking to lift the level of literacy in our homes because the more our students see their parents utilizing literacy, the more they will see a reason for increasing their own competence."*

Three conditions were envisaged as a prerequisite for receiving a computer loaded with software: a) parent or primary caregiver must attend a training session in computer basics; b) Students required to complete a piece of writing on the computer to demonstrate competence in use; c) the student must bring to school each week at least one piece of writing that he/she has done at home.

Items Purchased with AACT 2005 Grant

AACT Grant amount: \$43,540.00

Two separate quotes were obtained and the following costings were based on the lower of the two. Prices listed below are less GST.

Microsoft Office Professional x 100	\$35,378.00
Norton Antivirus x 100	\$ 4,440.00

⁸ Funding application to AACT

Encarta x 100	\$ 1,776.00
Carmen Sandiego software	\$ 1,776.00
Rewritable CDs	<u>\$ 177.00</u>
TOTAL	\$43,547.00

DATA SOURCES

- 2005, 2006 and 2007 AACT funding applications and AACT 2006 and 2007 reports .
- Several interviews with Tina Voordouw, Principal over the period April-August 2008.
- Two interviews (April and August 2008) with 2 parents and one grandparent. They are also teacher-aides, dating back 9-11 years. One was a foundation pupil in the 1970s. They were commenting as teacher-aides and as parents and grandparents of children of Rongomai School.
- Interviews with 2 Rongomai School teachers (of year 2 and year 3 classes) and a Resource Teacher Learning and Behaviour.
- Revisited school to peruse attendance data, comparing 2006, 2007 attendances with 2004. Trends in school attendances were of interest as a potential area of wider impact.
- Attended Pause, Prompt, Praise training session, including showing of a 15-20 minute video. Although wet weather meant a reduced parent turnout, it was an opportunity for me to meet and talk with a mother, a father and a grandmother.
- Interview with Manukau Libraries librarian responsible for the Tupu Library (Dawson Road branch) used by children and families. The main value of this interview, as it evolved, was finding out about the community library's outreach to children, youth and families in Otara and resources available to schools.
- Quantitative assessment data from Rongomai School: percentages of children reading at or above their chronological age level, years 1-6, covering the years 2003 through to 2007.

Extract from "Investing in People"

- A wide range of examples of writing projects children have done at home.
- Interview with Mike Usmar, founder and Executive Officer of Clubhouse 274 based at Clover Park School, Othello Drive, Otara and initiator of the Computer Clubhouse Trust.
- Interview with a class of approximately 20 year 5-6 students.

Note: Where children's work included this report comprises information that could identify the child or family (e.g. surname or photograph), family consent was obtained with the knowledge that the report would be made available to the general public.

OVERVIEW OF THE PROJECT

The project was launched along the lines envisaged in the funding application but later underwent revision in response to what emerged initially as an obstacle, but transposed into an opportunity.

The response by parents/ caregivers to participate in computer training was excellent, with 30 completing the training and 17 names still on a waiting list at the time of my first interview with Tina Voordouw in April 2008. However, the supply of 'cleaned' computers from Westpac Bank was slower than anticipated. The task of installing the new software on the computers also shifted to the computer technician who visits the school. Software installation proved to be time consuming. The result of these combined circumstances was that the flow of computers more closely resembled a trickle than a flood. Initially, the school adopted a cautious approach and three families who were in frequent contact with the school each received a computer on a trial basis. The school kept in storage another 17 'clean' computers and Westpac later added another 10, making a total of 27. Further training sessions were wisely delayed and the money for the software was set aside.

Following my interview with Tina Voordouw and having looked at product information on the Microsoft.com website, I came to the conclusion that Microsoft Office Home and Student would better suit the purposes of the project, and at half the cost of Microsoft Office Professional, which included components superfluous to requirements. I spoke with the AACT Administrator, who discussed this with Tina. Shortly afterwards, Tina received a Ministry of Education Centre for Assistive Technology circular advising of the availability of Asus Eee PCs complete with educational software. They were available with a 2 year warranty through certain local distributors at a very reasonable cost:

The Eee PC is a small lightweight laptop alternative running Linux operating system with Open Office or Windows XP with Works. The keyboard and screen are small and suitable for students who require a sturdy lightweight tool. New versions include the nine inch screen with Microsoft XP operating system or Linux.

⁹

The Eee PCs offered the advantage of wireless internet, email, web browser, file manager and accessories, Skype complete with built-in web cam and microphone, and open source software encompassing word processing, PDF reader, paint, spreadsheets, typing tutor, photo manager, virus protection and

⁹ <http://event.asus.com>

fun programmes for reading and language literacy, maths and science. Wireless internet connectivity is important because many homes do not have a landline phone connection. A revised plan, which was within the budget approved by the AACT, was proposed. Rongomai School would retain the 30 computers already supplied by Westpac. The funds set aside for purchase of software would be diverted to the purchase from a local distributor of 100 Eee PCs, each with a bonus 4GB USB flash drive and lanyard. USB flash drives were favoured over CDs because of their durability, portability and memory capacity. Attached to a lanyard hanging around a child's neck, they were less likely to be lost than if they were loose in a school bag.

The revised plan was adopted and implemented with the agreement of the AACT. The computers are now with families previously without a computer, all of whom have completed a basic training. Internet connection is via a local wireless network. The only cost that falls to families is for internet services. Anti-virus etc. protection is via open source software at no cost and is ongoing (i.e. no expiry date and no renewal fees). Low cost to families is important to the sustainability of the Computers in Homes project, given that some families are struggling to pay for basic necessities such as food, shelter and electricity. However, the financial situation of some families is improving with mothers and older teenage sons and daughters finding a place in the workforce. The children save their work on their USB flash drive, obviating the need to bring the computer to school every week. The work is printed on a school printer and shown to the class teacher.

There were discussions around whether to require families to sign a written contract. It was decided not to adopt this course of action as, in Tina's words, "we want to have faith that we respect that they want the best for their children as well." This is not a 'pen and paper' community. It is a community where a spoken understanding means more than a written one. There was one instance of a child reporting that "our computer is in the money shop but Mum says we will have it back at the weekend". Fortunately, mum was true to her word. The family name and name of the school are engraved on each individual computer and it is hoped that if a computer were to be left at a loan shop and not retrieved, the shop would contact the school. Any glitches have been minor, such as an older child who registered a password and promptly forgot it, making the computer inaccessible; at least until the school technician resolved the problem. A family's relocation to another area raised the question of whether the computer should be returned. The family retained the computer with the school's blessing.

An interview with Mike Usmar, founder of Clubhouse 274¹⁰ based at Clover Park School, Othello Drive Otara and initiator of the Computer Clubhouse Trust gives cause for optimism about project sustainability into the future. The following is a transcript of my notes from an interview with Mike in May 2008:

A 2007 Manukau City Council funded survey of 1561 Otara homes found that 40% of homes had computers, the vast majority 5+ years old. 60% had connected landline phones, 17% had dial up internet, and a miniscule number had Broadband internet. In late June 2008, work will commence on the laying of fibre optic cable to provide wireless internet connection across Otara. Consultation with Netsafe will ensure that the internet will be heavily filtered to moderate online behaviours. Schools are intended as the point of access for homes in their neighbourhood.

Requests for proposals (RFPs) will be sent to Otara schools in October 2008 and schools will start to be connected next January 2009. Schools will be required to contract to pay \$9-50 per month for what is envisaged as a very high speed connection. There will be no additional costs to homes. A simultaneous initiative will be the distribution of 3000 plastic laptops¹¹ to children attending Otara schools. The costs of US\$187 for each computer will be funded by sponsors. Development of 'open source software' for the laptops will be guided by the RFPs from schools. To add value to teaching and learning, Clubhouse 274 are working with "Anytime Anywhere"¹², an organisation focused on professional development for teachers to incorporate personal laptops as a learning tool. The process for distributing the laptops and establishing priorities will be decided in consultation with schools. The commitment of schools for their teachers to participate in professional development will be a major consideration in deciding who will get computers.

¹⁰ www.clubhouse274.org.nz

¹¹ http://wiki.laptop.org/go/Hardware_specification

¹² <https://www.microsoft.com/education/aal.mspix>

OUTCOMES

As explained in the introduction, the Computers in Homes and Effective Writing Project built on a platform of positive changes in the school, realised through other initiatives. These included a range of parent engagement initiatives, strategies aimed at making Rongomai School a happier and safer place for the children, and new approaches to teaching Literacy, in the form of the Bannatyne Programme. Outcomes must be viewed in this context.

Literacy Gains

The following table, based on results obtained using PM Benchmarks¹³ and "PROBE" (Prose Reading Observation, Behaviour and Evaluation of Comprehension)¹⁴, shows the progress that has been achieved. PROBE was developed as an individual reading assessment tool designed for students aged from 7 to 15 years, but it may also be used as a measure of silent reading comprehension and listening comprehension at the same age levels.

<i>RONGOMAI READING: %ages of students reading at or above their chronological age</i>					
	2003	2004	2005	2006	2007
Year 6	6%	33%	35%	71%	96%
Year 5	20%	20%	35%	65%	65%
Year 4	15%	20%	30%	50%	70%
Year 3	18%	25%	21%	42%	60%
Year 2	13%	30%	15%	20%	48%
Year 1	8%	0	8%	3%	13%
Year 0	0	0	0	0	0

The literacy gains since 2003 are impressive; in 2003 only 6% of children finished year 6 with a reading age commensurate with or above their chronological age level, compared with 96% in 2007. With some allowance needing to be made for movement in and out of the school (transience is around 10%), the 96% group in 2007 were the same students who completed year 2 in 2003. As they advanced through the year levels, they steadily gained chronological reading age parity or better with peers nationwide; 13% in year 2- 2003; 25% in year 3 – 2004; 30% in year 4 – 2005; 65% in year 5 – 2006; and 96% in year 6 - 2007. Looking vertically, column by column, the general trend across the school in 2006 and 2007 was for percentages achieving parity to increase as year levels got higher, a pattern of

¹³ PM Benchmarks goes to reading level 15, which equals a reading age of 6. Publishers: Wellington NZ: Nelson Price Milburn

¹⁴ PROBE: Prose Reading Observation, Behaviour and Evaluation of Comprehension http://www.tki.org.nz/r/assessment/two/assess_tools2_e.php

improvement that was not evident in 2003. This would seem to bode well for the future, in terms of students being able to continue to hold their own as they progress through intermediate and secondary schooling and beyond. Tina Voordouw explained that there is a "need for targeted learning every year to keep up the momentum. It distinguishes the families who do a good job at home." She added that an earlier trend for children's literacy performance to 'drop off' after holiday breaks, especially the long Christmas break, is not so marked now, with children doing more reading at home. It is reasonable to expect that the home computers will help maintain an unbroken learning momentum.

As indicated earlier, the Effective Writing Project had its origins in feelings of concern that writing and comprehension were lagging behind, despite demonstrated improvements in reading across the school. It is noted that PROBE incorporates assessment of comprehension. The above 'pre home computer' results are testament to improvements in comprehension, as well as reading. With children's use of home computers for writing, the future looks promising. As indicated by teachers' accounts and the accounts of parents and of children themselves, the children are doing more story writing and other written work because writing on a computer is fun. They are far more eager now to use the classroom computer. I was given a large folder of a range of written work (stories, letters, viewpoints etc) done on computers at home by children from years 1-6. Some examples are included in an appendix immediately following this report. Among the pages are children's letters of thanks to Westpac and the AACT.

A frequent comment from teachers and teacher-aides was that children have become more confident about expressing themselves and are articulating their ideas and questions more clearly during classes and among themselves. Listening has improved. Vocabularies have expanded. An 8 year old was able to gather enough confidence to ask a teaching staff member a question that was indicative of a situation of sexual abuse in the home, enabling early intervention.

The computers give the children a wider learning base. Games included in the open source education software package are a fun way to learn and practise maths and literacy related skills. The music programmes on the computer are helping children to develop their musical talent.

School Attendances/Absenteeism

With increased engagement of parents in the school and parents becoming more actively involved in supporting their children's education, I thought it would be worth looking at 2006 and 2007 attendance figures to compare them with 2004

when Tina Voordouw first arrived. Prior to 2004, attendance records were not kept systematically. The records confirm that attendances have improved and generally, if a child is absent from school, the absence is both explained and justified. I would suggest 3 main reasons, supported by data: a) improved monitoring and absenteeism follow-up processes; b) building trust and understanding with parents; c) children enjoy being at Rongomai School. In the words of a teacher-aide/ parent, "they (the parents) recognise the importance of not missing out on learning." Previously, no breakfast / lunch (no bread in the house) was a reason for parents to feel justified in keeping children home from school. Parents are now more comfortable about telling the school, so the child comes to school and the school provides breakfast and lunch without any 'loss of face' for the child or parent. This has not fostered dependency as *"parents have become more consistent about preparing school lunches"* (teacher aide). Enjoyment of school was evident in the children's stories; school becomes more enjoyable when children feel that they are able to keep up with their class work.

Computers as a Family Activity

The examples of work I was shown and my interviews with parents indicated that parents and other family members are working alongside the Rongomai children on the computers. Sometimes computer use involves more than one child working with the parent; sometimes it is a parent- individual child activity; and sometimes siblings work together, usually with one providing tips or instruction. An example was a brother who is in secondary school explaining a science programme to his younger sibling. In Tina Voordouw's words, "it's like having a great excuse to work together". Some parents have been motivated to take their learning to another level. Some have progressed their computer training through courses at the Manukau Institute of Technology (MIT). Some have enrolled in MIT courses to improve their English.

Children appear to see the computers as belonging more to them than their parents. This came across very clearly when I interviewed the year 5-6 class. Part of the explanation may be that children's affinity for ICT technology means that they quickly become more proficient than their parents in using a wide variety of the computer's features. A type of role reversal ensues, with the children teaching the parents, and possibly the teachers. Being able to teach something new to an older person is affirming of a child's learning identity. I see children's possessiveness of the computers as a positive development for several reasons. As a teacher-aide described it, the children feel 'a pride in ownership' because, for most, their Eee PC is the most significant thing they have ever owned. Understanding 'pride in ownership' may foster a sense of respect for the property of other people. Another implication is that it motivates children take greater care of their computers.

Children are drawn to use the computers because they are fun. They allay boredom, thus helping to lower stress levels in homes during school holidays, especially when the weather is wet. Often the school holiday caregivers are grandparents. They can also reduce stress levels and reduce driver distraction on long car trips, because children who are occupied are less disposed to complaining and fighting. Another comment from a mother was that it's noticeable in her neighbourhood that the computers "keep the children off the streets more."

Skype and the webcam allow for low cost communication, helping to reinforce family connections. Skype facilitates cheap phone calls elsewhere in New Zealand and overseas. Many of the Rongomai children have family in the Pacific Islands and some have family in Australia. At least one family have used the webcam for a family portrait.

Emergence of Leadership

Community leadership has also emerged from the computer training classes. Three parents who were part of the classes subsequently became members of the school's Board of Trustees. Another mother is organising monthly parenting sessions covering the following programme topics: healthy lunches, budgeting, first-aid, drug/ alcohol awareness, positive parenting, coping with puberty, reading and maths activities for families. A walking group of 12 people has emerged out of the parenting classes. Both groups are ongoing.

Children's Comments

In interviewing a class of approximately 20 year 5-6 girls and boys, I was wanting to gauge their response to the computers and find out how they are using them. The comment from one child, "We like everything about it. It makes us feel special" conveys a sense of how much the computers mean to the children. The students were unanimous that the computers are helping their learning. I did not ask specifically about learning activities but they were mentioned most frequently as a favourite activity nonetheless. Direct quotes are italicised.

Features of the computer that they like

The laptop keyboard is right for our fingers.

Wireless internet

*The camera – we use it at home
privacy*

The password – it gives

The size – you can take it wherever you want.

The touch pad

*The plug in head phones
changing these.*

Backgrounds – likes

Extract from "Investing in People"

*The sound recorder- we record our own voices
family overseas*

Skype – can talk to

*Being able to download music
reminders*

Notebook – able to post

Favourite learning activities

Maths games – challenging

Hangman (word game)

Pasting pictures into a story

Fractions and geometry

*Tux Maths and Pics
elements*

The periodic table of

Painting – likes *the grass that sparkles*
emails

Sending and receiving

*I like writing stories...writing about my niece
countries*

Photos from different

*The jumbled letter game
writing words*

Typing games and

*Writing Nana's memories (after her death).
right answer.*

Blows bubbles for the

The dictionary – uses it when writing to look up meanings and spelling

Timetables and maths - getting better at basic facts. The world clock

*The planetarium and it tells us what liquids are made of. It makes me want to
find out more.*

The calculator can go to trillions – more than 100 zeros.

Games (variable learning component)

Potato Guy - that you can decorate with eyes, ears, hats etc.

Solitaire

Sudoku

Penguin races

Playing Music

CONCLUSIONS

1. The Computers in Homes and Effective Writing Project brought together two main strands: a) engaging parents in their children's education and b) giving children tools and increased incentive to work on their literacy. Building a relationship of trust with the local community and establishing a working partnership with parents in the interests of the children were essential precursors to the Computers in Homes and Effective Writing Project. Without this preparation, a well intended initiative was at risk of being misused. The way in which the Project has been administered by the school has further enhanced its relationship of trust with the community.
2. The project got off to an excellent start with thirty parents/primary caregivers completing the training and another seventeen on a waiting list as at April 2008.
3. It is appropriate that operational decisions were/ are in the hands of the Rongomai School Principal and members of the school's Board of Trustees because they know their community best. The school community has ownership of the project and takes the responsibilities entailed very seriously.
4. New information emerged when the project was in its early stages, which resulted in major revisions to the strategy outlined in the funding application to the AACT. The revisions trace back to the evaluator raising questions about the most appropriate software to meet the needs of the Effective Writing project. My concerns related to incurring unnecessary costs for superfluous components. Not long afterwards, the Rongomai School Principal received information through Ministry of Education networks about Eee PCs (very durable mini-laptops), which could be purchased within the funding grant. Following discussions between the Principal and the AACT Administrator, 100 Eee PCs complete with open source software were purchased. They were subsequently distributed to families, in compliance with conditions set out in the funding application. Substantial extra benefits have resulted from what could be considered a serendipitous turn of events.
5. The Eee PCs come equipped with wireless internet, email, web browser, file manager and accessories, Skype complete with built-in web cam and microphone, and open source software encompassing word processing, PDF

reader, paint, spread-sheets, typing tutor, photo manager, virus protection and fun programmes for literacy, maths and science. The 'minimum, non-recurring costs to families' aspect is important to project sustainability. The children and families seem to be using all of the programmes.

6. The USB flash drives constitute a simple method for work done at home to be brought to school and for assignment work to be taken from school to home. Families don't need to own a printer as printing can be done at school.
7. Literacy gains at Rongomai School since 2003 are impressive; in 2003 only 6% of children finished year 6 with a reading age commensurate with or above their chronological age level, compared with 96% in 2007. Improved standards of writing and comprehension are reflected in the 2007 figures. It is reasonable to assume that home computers will help reinforce these gains.
8. A trend evident across the school in 2006 and 2007 for percentages achieving parity to increase as year levels increase bodes well for the future, in terms of students being able to continue to hold their own as they progress through higher levels of education.
9. Children have become more confident about expressing themselves and are articulating their ideas and questions more clearly during classes and among themselves. Listening has improved. Vocabularies have expanded. Home computers are a contributing but not the sole explanation.
10. Parents and other family members are working alongside children on the computers. Sometimes computer use involves more than one child working with the parent; sometimes it is a parent- individual child activity; and sometimes siblings work together, often with one providing tips or instruction.
11. Records confirm that attendances have improved. A contributing factor is increased trust and understanding with parents. In the words of a teacher-aide/ parent, "they (the parents) recognise the importance of not missing out on learning." Also, school becomes more enjoyable when children feel they are not falling behind in their learning.
12. Some of the parents/primary caregivers who completed the basic computer training at Rongomai have progressed their computer training through courses at the Manukau Institute of Technology (MIT). Some have enrolled in MIT courses to improve their English.

13. Children's affinity for ICT technology means that they can quickly become more proficient than their parents in using a wide variety of the computer's features. A type of role reversal ensues, with the children teaching the parents, and possibly the teachers. Being able to teach something new to an older person is affirming of a child's learning identity.
14. Children appear to see the computers as belonging more to them than their parents. Children's possessiveness of the computers can be seen as a positive development for several reasons. The children feel 'pride in ownership' because, for most, their Eee PC is the most significant material possession they have ever owned. Understanding 'pride in ownership' may foster a sense of respect for the property of other people. Another implication is that it motivates children to take greater care of their computers.
15. Children are drawn to leisure time use of the computers because they provide entertainment. In allaying boredom, they help to lower stress levels in homes during school holidays (as long as the children aren't fighting over the computer!). They can also reduce stress levels and reduce driver distraction on long car trips. Another comment from a mother was that it's noticeable in her neighbourhood that the computers "keep the children off the streets more."
16. Skype and the webcam allow for low cost communication, helping to reinforce family connections. Many of the Rongomai children have family members in the Pacific Islands and elsewhere overseas. At least one family have used the webcam for a family portrait.
17. Community leaders have emerged from the computer training classes. Three parents who were part of the classes subsequently became members of the school's Board of Trustees. Another mother now organises monthly parenting sessions, which have in turn led to the formation of a walking group of 12 people.
18. Work being done by Mike Usmar and the Computer Clubhouse Trust gives cause for optimism about the continuity of the Computers in Homes-Effective Writing project well into the future. In October 2008 all Otago schools will be invited to forward their proposals. As well as linking Otago schools into a wireless network and putting mini laptop computers in homes, it will offer professional development for teachers to incorporate personal laptops as a learning tool. Mike Usmar's project would appear to offer excellent opportunities for Rongomai School.

19. The children of Rongomai School have asked me to convey their special thanks to the AACT for a gift that means so much to them. Letters of thanks to the AACT are among written work they have done on the computers.

20. It is most fitting that the children themselves should have the last word. The comment from one child, "We like everything about it. It makes us feel special" conveys a sense of how much the computers mean to the children. The students were unanimous that the computers are helping their learning. I was amazed at the range of features they are using. The computers are adding a fun element to learning and to 'homework' in its broadest sense.