

# Executive Summary Report on LANE progress at Linwood College in 2008

The LANE team with funding from the Wayne Francis Charitable Trust has been making good progress on many fronts during 2008.

## SYSTEMIC POLICY CHANGES

A major focus of the LANE project since the beginning has been the issue of achieving systemic policy change in primary health care and the spreading of the word about the LANE research to affect this. We believe there has been significant progress in achieving this.

A number of strategic meetings have been held in this matter.

DHB and PHO representatives came and the net result of a number of meetings was the employment of a Partnership Community worker, funding of the 2009 Headss assessment, funding for a trial eye testing programme in Linwood Intermediate. (using the same assessment used at Linwood College, and probably the same nurses.) There is still the issue of who and how to pay for glasses for students who are identified and who don't meet the free glasses scheme.

At the October meeting Jane Cartwright, Chief Executive Partnership Health Canterbury, informed us that the B4 schools medical information was now being recorded on the ENROL Education package once children started school.

Mike James from the Ministry's Child Youth and Maternity Team sent the following information out regarding the roll-out of School Based Health Services (SBHS).

He attended a meeting with other DHB Planning & Funding officials and officials of the Ministry at Counties Manukau DHB to discuss the roll-out of primary health services for youth at various low decile educational facilities.

The aim of SBHS is to improve educational outcomes through overcoming health and social barriers to learning for at-risk youth in secondary education. The schools to be targeted initially are decile 1 schools (including secondary schools, Te Kura Kaupapa Maori, and area schools) and alternative education facilities (AE facilities). It is proposed to employ registered nurses specialising in youth health, based where possible in school, to:

- \* conduct health disability and development checks for all year nine students;
- \* provide care to individual students; and
- \* refer students to other health providers and follow-up these referrals.

Later on the Ministry wishes to progressively roll the service on to decile 2 and decile 3 schools

**ALL of this was in our LANE 2006 research recommendations. Perhaps we have started to make a difference.**

The Honourable Chris Carter, Minister for Education came to Linwood to hear a presentation about LANE and sent this personal message back

“Alan, thank you for briefing me on the LANE project while I was at College last week.

I was impressed with the considerable data set you have developed about the educational gains from dealing with health deficits.

The impact of health on student learning is being considered as part of our *Schools Plus* work and I will ask my officials to make contact with you to discuss your work.”

John Key, then Leader of the Opposition party, came to Linwood College the next week and received a similar briefing. He responded that he would be in touch after the election.

A number of meetings were held with the Canterbury Youth Development Programme organizers, informing them of LANE and the processes and results. The outcome of this has been a double edged sword.

First the positive – they have embraced the LANE concepts wholeheartedly and all candidates will have a full medical screening and literacy testing before being inducted into their programme. They have also had training by Judy Hutchison on Toe by Toe. We are having a systemic policy change effect in other organizations.

The downside is that they are being funded by one of Linwood's benefactors who have cut their companies contribution to Linwood by \$50,000 in 2009 and stopping all contributions after that.

Several secondary schools have reported that they have read the LANE research and have obtained sponsorship for testing in their schools in 2009. We do make a difference.

Alan Parris spoke at the Christchurch Association of Gifted Educators (CAGE) at the University on 23<sup>rd</sup> October about Mathematics and the LANE project. There was intense interest from all present including some Ministry advisors and University lecturers.

Janet Digby was referred to us by Sally Mountfort. She is with the JR McKenzie Trust and coordinator of the Seehear project and she submitted a very good report by her of that meeting and the consequent conference she attended and what she is doing about it since.

Since the election we have met with Brendon Burns, a local MP, who whilst now in opposition has offered to coordinate all the local MPS into action to meet with the DHB and other groups to get the message across about the LANE project and health needs.

All of this points to us making significant progress in our aim to achieve systemic policy change. For 2009 the goal would be to reconvene the strategic group to ascertain progress and influence, to develop policy for the advancement of the systemic change process and to continue with all the meetings with authorities we can arrange.

A suggestion from WFT that Linwood attend some conferences to spread the word far and wide is to be looked at as well, but is contingent on funding.

## **LITERACY**

Linwood identified through its testing more students who needed remedial reading than it was able to fund teacher aides for. This placed the organizer Judy Hutchison in the unenviable position of selecting who was helped and who missed out.

### **TOE BY TOE AT LINWOOD 2008**

At the beginning of the year there were 62 Year 9 students below 77 on a BURT word recognition. These are identified as needing remedial reading assistance ie Toe by Toe. Another 11 students scored between 77 and 80.

There were spaces for only 24 Year 9 students at the start of the year.

There were 7 Year 10 students and 16 Seniors, some finishing from the previous year but some were new to the school.

We had two tutors for the programme. Both tutors elected to work with 4 students per hour to allow more students to be tutored.

The Seniors and new Year 10 students were picked up by Terry Elliott with Year 9 students to fill in any spare spaces she had as they became available. Judy Hutchison took on 16 Year 9 students as one period a day (or one day per week) was set aside for developing and supporting the outposts.

This meant 38 Year 9s with serious to moderate reading delays were not able to be seen from the start of the year and any new students of any age who arrived with reading delays would probably not be seen.

The school was able to find a further 10 hours per week during the year and some of the Year 9s were picked up then. However some of the Year 9s had left the school before even getting on to the programme

(some for behavioural reasons and some because of transience). No doubt they will appear in the statistics at some later date.

Results continue to be good. One Senior girl who began the programme last year finished this year with a Probe 8.5 years better than her first in early 2007. Her BURT had increased by 52 raw score points. Another improved by 4.5 years. Most of the Year 9s will finish by the end of this term. All show improvements so far. One young man in Year 9 has had to be cajoled and coerced through the programme but at page 153 he finally admitted it has made a big difference to his reading and was able to acknowledge that he could now easily manage pages that he once found very difficult. Attendance continues to be a challenge for some students but it is not as serious a problem as it seems to be at the YMCA and Te Ora Hou.

### **YMCA**

The students who attend this alternative education unit have often been chronic school truants and many but not all have learning disabilities. Some are referred to the unit by the courts or by CYFS.

The biggest problem with the young adult programme at the YMCA is attendance and competing for regular access to the students. There have been 17 students on the database. Student BURT scores ranged between 27 and 78 (6.5 years to 11.1 years). Their ages ranged between 15 and 18. Eight have not yet reached halfway, 2 have just started and the remainder range between 11 and 65 sessions. Five have left the YMCA and had between 2 and 16 sessions; attendance for them was a problem from the start.

Two are halfway and have moved from 63 to 79 and from 76 to 85 on the Burt; and from 10 to 10.5 years and 10.5 to 11.5 years respectively on the Probe.

The students who have stuck with the programme are positive about its usefulness. Despite initial reservations one student said he was now convinced it was working.

The other staff at the YMCA are consulting with Julie and trying to work in with the Toe by Toe programme with their spelling teaching, so that students get a coherent approach to their learning needs.

### **Te Ora Hou**

Again establishing a programme that could fit in with the existing programme at Te Ora Hou was essential. Young adults presented with similar challenges to those at the YMCA. There have been 8 students on the database.

One student was seen by other teachers as very slow but he is Waveney's best student. He volunteers positive feedback like "my girlfriend has noticed that my texting is getting better." His reading has improved by 7 years. He now relates well, is relaxed and proud; he has a job. I watched him attack nonsense words with determination even though he had spent the previous night (Guy Fawkes) out drinking with his friends – he sported a hangover and a carton of juice but he was still there at 9 am to do Toe by Toe. Students are becoming vulnerable and trusting enough to try and take the risk of getting it wrong. Without this self-confidence and risk-taking characteristic it is very hard to succeed at Toe by Toe and it takes some time with young adults to build this relationship.

### **Paparua Prison Youth Unit**

The average age of the young men at the unit is 17 years old and only those who were going to be in the facility for some time, were put forward for the course.

Staff within the youth unit have been very helpful even though working with the students one on one means they often have to be individually brought out of their cells by guards and returned to their cells after the session which does make additional work for the officers. The programme runs very smoothly with students being called for over the headphones and they appear within a minute.

Jacque has assessed and started work with 6 students. Initial testing here showed a range of BURT word score results from 45-75 and the Probes ranged from 7.5 years to 11.5 years. Five students have reached halfway. Two of them got there in 8 weeks and the other 3 took about 10 weeks. All have improved. Three have got to the top of the scale (over 12.9 years), their improvements range between 1 and 2 years. Of the others, one has reached 9.10, an improvement of over one year and the other has achieved 11.01, an improvement of 2 years.

The rapid improvement is a direct result of their regular attendance and a lot of good support from their tutor. Students report it is already affecting their ability to gain NCEA credits.

### **Linwood Avenue School**

After discussion with the Principal, Waveney has taken up working at Linwood Avenue School in the afternoons. They are providing 4 students initially. Students have responded well and are making rapid progress. It will be interesting to see if synthetic phonics based intervention before High School will help

prevent some of the more entrenched decoding problems and failure of confidence we have experienced among students here at Linwood College.

### **Conclusion**

The outposts doing Toe by Toe are a very different proposition to in-school tutoring. Attendance is a perennial problem and so is fitting in around the programmes within the various institutions. Progress is slow, except at the prison where progress has been excellent, but as we experienced at Linwood College it is life-changing. Motivation and attendance seem to be the key to student success at this level as well as trying to build in some level of self management and external reward.

It is recommended that we continue with the outposts for 2009 firstly to get some completion, and secondly to obtain data on students to compare with mainstream students. Also to expand to Linwood Intermediate to evaluate if the Toe by Toe programme has long lasting benefits to students prior to coming to secondary school. We would then be able to track these students longitudinally as they progress through the schools.

## **LITERACY BENCHMARKING PROJECT**

We need to find a benchmark which defines when a person is at risk of failure in reading. Benchmarks represent minimum standards of performance below which students will have difficulty progressing satisfactorily at school. An adequate level of reading fluency is a skill that is likely to be judged as high in social value. Sibley, D., Biwer, D. & Hesch, A. (2001). Establishing Curriculum-Based Measurement Oral Reading Fluency Performance Standards to Predict Success on Local and State Tests of Reading Achievement

Research has shown that a student reading a prepared passage of words for one minute provides a good assessment of fluency. The Year 9 students (225) at Linwood College were given a one minute fluency test in April 2008. Teacher aides timed the students reading a prepared reading passage for a period of one minute. The number of words the students read in one minute was recorded.

These results were matched up against their known reading ages identified by BURT and PROBE testing. The mean words read per minute was 120.4, while the median was 118.5 words per minute. The mean reading age was 11.6 years, while the median was 12.3 years.

The results show that reading at one hundred and twenty words a minute could be used as a benchmark to target students who have difficulty in reading. One hundred and twenty words a minute corresponds to a reading age of about twelve which is a reading age that is deemed by society as necessary for a person to function in the adult world.

These results are for students only and it was necessary to conduct a survey out in the community with a wide range of people to ensure a reasonable demographic spread.

Volunteers from Probus carried out a survey and one minute reading test in Christchurch on behalf of LANE during the middle of 2008. The test consisted of a one minute reading test where respondents were asked to read a passage of words for one minute out aloud. The number of words completed in a minute were recorded. Mistakes were subtracted from the total of words read. The participants were also asked to answer some questions for statistical purposes. Participants were categorised by gender, age and ethnicity. Participants answered one question on their reading ability and one question on their mathematical ability.

669 people attempted the one minute reading test. There were 675 refusals. With the student numbers (225) this gives a survey number of 1569 citizens in Christchurch.

### **Results**

The mean score was 165.5 words per minute and the median score was 168 words per minute, with the profile close to a normal curve. Those who identified as New Zealand Pakeha had an average reading rate of 169.7 words per minute; New Zealand Maori 149.4, Pasifika 147.9, and other 154.6. 72% of the people who took part in the reading benchmark test classified themselves as New Zealand Pakeha, 6% as New

Zealand Maori, 3% as Pasifika and 13% as of Other ethnic origin. 6% did not indicate any ethnicity. These figures are similar to the 2006 Census where 2.8% were of Pacific Island descent, 7.6% of Maori descent and 75.4% were identified as NZ Pakeha. 4% of the participants were aged under 16; 15% were 17-25; 12% were 26-35; 28% were 36-50; 21% were 51-65; 19% were over 66. 1% did not indicate any age.

## **Conclusion**

The survey had a significant number of participants. It is closely aligned with the 2006 Census in terms of demographics, ethnicity, age distribution etc and the results are indicating that a possible benchmark is there at around 120 words per minute.

The WFCT SG saw a need for a broader community conversation (facilitated by Michael Dunlop) and instigating some literacy benchmark trials in groups such as City Care Limited, NZ Post and Independent Fisheries Sally Mountford is to liaise with the CCC and perhaps Simon Mortlock might be the right person to deal with the Mayor .

Jenny Whatman, Project Manager NZCER has been in touch as they are trialling in 2009 a Literacy and Numeracy assessment tool. A collaborative team involving NZCER, the Australian Council for Educational Research (ACER), and IT company Fronde, has begun work on a new adult literacy and numeracy assessment tool. The contract, with the Tertiary Education Commission, involves the development of a computer adaptive tool which educators will be able to use to assess an adult learner's current level of literacy and numeracy. Their programme is essentially the second tier to our Benchmarking assessment and they are looking at our research to see where it fits. They still have the issue of the initial screening to solve and perhaps ours is a solution.

2009 sees the need to continue the Benchmarking project out into the commercial community, and the liaison with NZCER and others to fit it into the larger educational picture.

## **NUMERACY BENCHMARKING PROJECT**

Very similar to the Literacy Benchmarking Project except that there are many more strands to Mathematics than just reading for Literacy. There is no international research on this and educators, Ministry people, University lecturers were all at odds over what is required. The focus groups in 2006 were equally as diverse in what is necessary to be able to function numerately in today's society.

A wide ranging group of Mathematics educators were consulted including numeracy facilitators and assessment experts such as Warrick Elley and Des Rainey over what is the purpose and what should be covered. Nowhere in the world is such a benchmark with such time and administration conditions ever been considered. Warrick is heavily involved in developing countries assessment procedures, but they have all been administered by experts over a much longer time period – up to two hours. They are interested in the notion of a low level, low cost, broad brush initial screening that separates out those who definitely need help.

Quite a few trials were considered until in the end we decided to go with a single test based on money. This is still a work in progress, but it has been aligned with the numeracy project and the new NZ curriculum.

This test has been trialed on 200+ students at Linwood and some others around the country. Results are still coming in and we will be able to analyse these to see if the test meets the need, or it needs to be modified.

The WFCT SG meeting did report on their views and as a result modifications were suggested that need to be trialed in 2009. It is a work in progress.

### **Mathletics at Linwood College**

Mathletics is an internet-based maths tuition program, written in Australia but used by school children around the world. It is suitable for a wide range of ages and abilities and one of its chief strengths is that students can proceed at their own pace and at their own desired level of difficulty. Mathletics has a huge ability to motivate students who might otherwise not be very interested in maths by using a competitive

element, "Live Mathletics".

This works by students competing in real time with others from around the world to answer questions the fastest and also to gain credits which they can "spend" on their on-screen character. There is also a wide variety of lessons, tasks and difficulty levels which can be set by class teachers for individual students, groups or whole classes.

In New Zealand the site can be found at [www.mathletics.co.nz](http://www.mathletics.co.nz) although a password is required to actually use the program. Students must pay an annual fee for unlimited access during that year. Support to teachers is free and unlimited via phone or email. Linwood College had a visit from Yvonne Blanch to teach us how to use the program earlier in the year.

Mathletics has been used primarily in the four low ability year 9 classes at Linwood. Each class has at least one period per week using the program, although some teachers at some times have used it for two or three periods a week. The program has generally been enthusiastically enjoyed by pupils, with a common question at the start of a period being "*Are we doing Mathletics today?*" with disappointment if the answer is no.

Some other comments are: "*It's fun, it gets you out of the classroom, you can work at your own speed and nobody yells at you*" Ryan O'Neill, 9CO "*It's good so you can learn stuff you didn't know about before*" Vena Taaso, 9CO

"*Oh, it's really cool 'cos you can race against people from all over the world*" Ashley Thompson, 9CO

The competitive aspect is very attractive, especially (but not exclusively) to boys. Often teachers will set a task that must be done before the pupils can progress to the much liked Live Mathletics. Competition is able to be displayed at three levels – the individual games of Live Mathletics, the highest points in this class for this day and the grand total of all points for all pupils in this school ever. All these are avidly followed by many children. The program also lists the top 50 schools, top 100 individuals and top 50 classes around the whole world.

We have seen enthusiastic, motivated kids enjoy coming to maths classes, pupils who had only rudimentary knowledge of their times tables whose speed, ability and confidence in numeracy has improved tremendously.

## **Conclusion**

Mathletics is a remedial programme for mathematics and we have compared it to the Toe by Toe programme as a remedial fix for those who need help in Mathematics. It appears to be extremely useful in this area. It does cost to participate but we have been successful in getting Mathletics to support us in our evaluation of it. We recognized that it is not the only possibility, but it has a lot going for it currently. A major disadvantage is that it is computer based and students with eye problems are probably at risk here. The major advantages at the moment are that it exists, is accessible, you don't need an expert to administer, it is enthusiastically received by students, it is 24/7, it has individual reporting back.

We recommend that it continue at Linwood for next year to get a 12 month study of results completed.

## **HEALTH**

### **2008 EYE TESTING AT LINWOOD COLLEGE**

Eye testing for all year nine students (229) and all new year ten students (40) at Linwood College started on 3<sup>rd</sup> March 2008 in the school assembly hall, using two registered nurses. These were the same nurses who have done this for the past two years, hence consistency of the assessment was maintained and hence the ability for direct yearly comparison.

The registered nurses referred 61 students for a more intensive eye examination. Colley & Robinson, the contracted optometrists, informed us that a subsidy was available for the purchase of glasses if the student had a High Health User Card or the family of the student had a Family Community Services Card.

Unfortunately, very few of our students qualified for this for a number of reasons. Evidence from the billings from the Optometrists to Linwood College would indicate that this was relatively few. (in to order of 5 students or about only 18%)

The DHB and PHO group is looking at ways to enable families to access free spectacle supply.

Of the 269 students given five minute eye tests at Linwood College, 61 or 22.7% were referred for a further eye examination at Colley & Robinson. 27 or 10% of these 269 students got glasses. Four of these 27 students had previously worn glasses. 27 or 47.4% of the 57 students that were actually seen by the optometrist at Colley & Robinson got glasses. Overall 27 or 10% of the 269 students given five minute eye tests at Linwood College needed and were given glasses.

This is slightly down on the 2006 initial results but still consistent with 2007 demonstrating there is a continuing problem with children coming to Linwood with eye problems that constitute a barrier to their learning.

The introduction of a PCW (part-time community worker) at Linwood College as part of the DHB response to the original LANE project is hoped to help rectify this funding pathway blockage. The DHB indicated that there is a fund that is accessible for the glasses, but it relies on individuals registration through General Practitioners. Part of the PCW's job is to facilitate this process. Contact with our local GP has also been made and she is also trying to find the pathway as she was unaware of it as well.

## **HEALTH MEASUREMENTS**

All year 9 students were tested at the school medical centre in the first half of the year and measured for Body Fat, height, weight to give Body Mass index which was then able to be compared to the 2006 measurements.

Results show similar trends and the need for a comprehensive BMI chart revision by Health authorities. This was mentioned at one of the SHB meetings and has been noted.

## **DEMOGRAPHICS**

In 2008 a demographic survey and Headss assessment was carried out on Year 9 students only. Very similar results to 2006 and 2007 were obtained with only a few significant changes. The transient number was slightly down but no breakfast was slightly up. Those coming to school by car had dropped significantly, possibly due to roadworks rather than economic reasons. Doctors were up but still less than half had a dentist. The health pattern is still cause for concern.

## **HEADSS Assessment**

In 2008 the Headss assessment was carried out by the Linwood College Counselling team under the guidance of Bill Abbott of all Linwood College Year 9 students.

### **Resilience factors**

Over 90% of students said yes in answer to all but one of the resilience questions. The following three questions had an improvement rate of over 10% on the 2006 survey findings. 96% of students said teachers are fair compared to 77% of students in 2006. 79% of students were involved in sport, church or youth groups in 2008 compared to 69% in 2006. 99% of students felt that adults cared about them in 2008 compared to 89% in 2006.

### **Risk factors**

Negative trends. 29% of students moved schools a lot in 2008, compared to 18% in 2006. 11% of students had a depressive disorder in 2008 compared to 8% in 2006. 13% of students in 2008 said one of their parents suffered from a mental illness or was in prison compared to 10% in 2006. 9% of students in 2008 were subject to physical abuse compared to 6% in 2006. 9% of students in 2008 were unable to identify a parent or significant adult that cares a lot about them compared to 1% in 2006.

Positive trends. 2% of students were sexually active in 2008 compared to 5% in 2006. 8% of students in 2008 had friends or family members who had committed suicide compared to 12% in 2006. 13% of students in 2008 witnessed or have been exposed to family violence compared to 18% in 2006.

Numbers of students in each category when combining these into levels of risk or resilience.

	Risk		Resilience	
High	1		1	Low
Medium	60		28	Medium
Low	158		190	High

Combining these to rate students

Really at Risk	High Risk	At Risk	Ok Need Monitoring	Okay
0	1	21	38	160

**This is down on the 2006 figures but still high enough to cause concern and stretch the counseling teams ability to meet student needs.**

## STRATEGIC PLANNING

### Partnership Community Worker 2008

As a result of the LANE Project Strategic Planning Workshop earlier this year - facilitated by the Wayne Francis Charitable Trust and chaired by Michael Dunlop - Jane Cartwright, CEO of Partnership Health PHO, commissioned a feasibility study of how well Linwood College staff responded to health needs of its students. This study was undertaken by Adrienne Roberts, an independent consultant.

The study resulted in three recommendations to the PHO:

1. That a community worker be appointed to Linwood College, working closely with the pastoral care team, school nurse and counselling department. The job description to prioritise a linking function – with school staff, with families, with agencies.
2. That resources be provided to enable the school nurse(s) to be made a full member of the health team, participate in health team decision making, receive ongoing professional development and supervision as per similar health professionals working one to one with vulnerable youth.
3. That staffing resources be provided to enable year 9 physical health and HEADSS assessments to be carried out in a timely manner.

The PHO has subsequently offered the following resourcing to the College:

- A half time Partnership Community Worker (20 hours per week) for a fixed term of three years
- Funding to undertake the HEADSS assessment in 2009.

Although we are disappointed that the full recommendations were not implemented by the PHO we are pleased to have the above extra resource which will enable us to expand the service provided for our students.

Emma Blackwell has been appointed to the role and began working in her new role on 23 October. Emma is a trained midwife with extra skills gained from working in a social work capacity in Aranui. She already looks to be a very good appointment.

## LANE WEBSITE

The release of the LANE website with all of the 2006 /7 material published on its own domain name [www.laneresearch.co.nz](http://www.laneresearch.co.nz) has had a tremendous impact on exposure of the research and the data that it includes.

The 5<sup>th</sup> July 2008 Listener article of four pages on the LANE project and in particular the Toe by Toe aspect also elicited a number of favourable responses. A reference to it is also included on the website.