REPORT ON THE READING RECOVERY PROGRAMME

TOE BY TOE

AT

LINWOOD COLLEGE

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Executive Summary
Reading inquiries and research all over the world have concluded that systematically teaching phonics as well as whole word identification and how to use contextual cues is the most reliable way of teaching reading so that up to one third of children are not left behind. These inquiries have based their conclusions on a rigorous assessment of current research into learning, reading and the brain. While some children can learn to read seemingly effortlessly, many find the process difficult. Some of these children are being left behind and research shows that students who do not make good initial progress in learning to read find it increasingly difficult to learn as time goes by. The longer it takes, the harder it gets.

Although Reading Recovery is designed to bring reading-delayed 6 year-olds up to their peers, at Linwood College around 30% are still behind by the time they start high school. Reading Recovery and the current early reading teaching methods do not seem to be working for a large number of students. Ideally the problem should be prevented by introducing a lively, systematic phonics programme into our new entrant, Year One and pre-school classes to support our existing reading programmes. Phonics does not have to be dull as Yolanda Soryl has demonstrated.

So there is a problem: a large number of high school students, many in low decile schools have not acquired sufficient phonic knowledge; which means when they read, their word recognition process is slow and their understanding compromised. These students have experienced years of failure by the time they reach high school and their deficits in vocabulary and knowledge mean they find it difficult to function at a secondary school level and too often they leave with few qualifications and little hope of a well-paid job and a secure and satisfying future. Toe by Toe is one programme that can be used to redress the balance.

Toe by Toe is a synthetic phonics programme that uses repetition so that a student can learn the alphabetic sounds in English to allow easy decoding. Students at Linwood College, completing Toe by Toe in 2006, improved their reading ages by an average of 2.5 years. It has proved equally successful with adult students and students in Years 9, 10 and 11 over the last 3 years. It requires a regular (preferably daily) 15-20 minute session with a tutor and most students need about 50 sessions to complete the book, though some take a lot longer as the programme adapts to individual needs.

Even late intervention can make a significant difference to the lives of many of these students.

Introduction
In the last decade English-speaking countries all over the world have expressed concern at the large number of children who are not learning to read well. Three of the largest, the United Kingdom\(^1\), the United States\(^2\) and Australia\(^3\), have set up inquiries at great

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\(^3\) National Inquiry into the Teaching of Literacy. Australia 2005
expense, charged with identifying the best ways of teaching reading according to the latest and most rigorous research.

New Zealand has always prided itself on being a world leader in literacy and according to the 2000 OECD survey\(^4\), NZ had the world’s highest number of top-level readers (19%). But 31% of fifteen year-olds scored below level 3 on a 5 level scale, which aligns with the 33% of Year 9 students who arrived at Linwood College this year with reading ages from 2-9 years behind their chronological age. Research shows that few of this group will ever catch up\(^5\).

New Zealand teaches reading through a predominantly whole language system. Children who are having difficulties reading are identified at 6 years old and Reading Recovery is used to address the problem before it has become entrenched. But despite these best efforts New Zealand still has an unacceptably large number of students who are not learning to read well enough to function easily in society. One OECD survey\(^6\) found over 40% of New Zealand adults did not have higher literacy skills.

**Background**

In 2003 the Linwood College Resource Teacher of Learning and Behaviour returned from a conference with a little red book. She thought it might help a student who had been referred to her for difficult behaviour. He complained of reading difficulties and his tests showed he was almost able to comprehend at his age level but it took a painfully long time as he struggled to work out the words using the context; not surprisingly he hated reading and avoided it. He worked over the next 5 months with a tutor on the book, Toe by Toe, and his mother reported a changed boy; so did his teachers. He was engaged and no longer disruptive; he wanted to stay at school. He cheerfully extolled the virtues of Toe by Toe, and was happy to recommend the programme to any possible candidates, especially if they were dubious or unwilling.

These results were impressive and the efficacy of the programme was put to the test with more students in 2004. Again the results were good; most students not only improved their reading but their attitude, behaviour and self-confidence seemed to improve too. Parents were delighted and students were going on to achieve NCEA credits; the second student to complete the programme went on to earn over 130 credits and left for an apprenticeship, a result he and his mother felt would not have been possible without Toe by Toe.

In 2005 the programme needed to be expanded to really test whether or not it was as effective as it initially appeared, but at $100 per book and requiring one-on-one tutoring this was an expensive undertaking and since the book built in as much repetition as the student needed it was a programme that could take an unpredictable amount of time. The LANE project provided the opportunity to really put the programme to the test. The Trust was looking for a reading programme that could be used to teach young adults with reading problems in the Christchurch community. The school wanted the chance to use Toe by Toe with a larger number of students and to test whether or not it was as successful with a wider group.

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\(^5\) [http://www.ednews.org/articles/533/1/The-Matthew-effects/Page1.html](http://www.ednews.org/articles/533/1/The-Matthew-effects/Page1.html)

At the same time the Trust wanted to investigate the international and New Zealand research about the most effective ways to teach reading and the school also undertook a small trial of an alternative phonics programme. The Toe by Toe results were convincing enough to warrant a larger trial in 2006. The research investigation showed that the inquiries conducted in Britain, the USA and Australia had all found that phonics was a vital part of teaching reading particularly for beginning and delayed readers.

**Toe by Toe**

Toe by Toe is a synthetic phonics programme developed by a teacher in the UK. Keda Cowling wanted a way to help her students who had reading problems. The book is used 15-20 minutes daily with a tutor. It takes the student back to the most common sounds for each letter in the alphabet then gradually builds in other common patterns. Each pattern is practised through nonsense words then real words and then in sentences. Each example has to be read correctly 3 times, consecutively, on different days. This simple but effective process means students return repeatedly to those things that they are finding difficult – it builds in the amount of repetition that each student needs to become fluent with that pattern. The tutor does not need to guess when the student is competent; they know the student has mastered the pattern when the page is signed off.

The programme is being used in the West Dunbartonshire Literacy Initiative which aims to end illiteracy within 10 years. “In 2003 28% of children leaving primary school, aged almost 12 were functionally illiterate (using the common standard of a reading age under 9½ years). Our own studies showed that most of these children would still be in the same position at the end of their schooling.”

They chose Toe byToe as their remedial tool for failing students in need of individual tuition because “it was a simple, direct phonics-based programme by means of which a young person could be taken systematically and successfully through all the key skills of basic literacy.” Like the LANE project, they were planning to use teacher aides and volunteers and needed a programme that was simple to use and required only a small amount of training. Their initial results using expert tutors showed average gains of 3½ years while their control group made average gains of 5 months. Using volunteers the average gain was 14 months, 20% had gained over 2 years and some had gained 3 years.

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7 Synthetic phonics is defined by Max Coltheart and Margo Prior in *Learning to Read in Australia*: “a child being taught that the letters *c a* and *t* correspond to the sounds ‘kuh’ ‘a’ and ‘tuh’ and that these can be put together (synthesised) to make the syllable ‘cat’ is being taught synthetic phonics.” Academy of the Social Sciences, 2007.

8 Mackay T and Cowling F (2004), *One Toe at a Time* Literacy Today (Issue 38) UK
Research and International Inquiries into Reading

Neuroscience and reading development

Modern neuroscience and MRI brain imaging has allowed scientists to identify how the brain reacts and develops as people learn to read. The scans show that good readers develop areas on the left side of the brain which are activated in a specific order. Beginning readers use the inferior frontal gyrus and the left parieto-temporal areas. The first is the phoneme producer which helps people say words silently or aloud and analyses some of the phonemes or letter sounds found in words. Then the second area breaks words into syllables and phonemes and links the sounds to the letters. With practice sounding out written words, beginning readers start to build a model of the printed word in a third section of the brain. When the now familiar word is next encountered it is sent directly to this section where it is recognised instantly and fluent reading is achieved. Skilled readers rely on this occipito-temporal area which builds sight words and automaticity so the reader can recognise words instantly without having to process the letters into sounds and then into words. The first two areas work together to convert the letters to sounds and then fit the sounds together to make recognisable words. The third area allows rapid effortless reading as the brain no longer has to rely on sounding out the words.

International Inquiries into reading

The Australian government published its National Inquiry into the Teaching of Literacy in December 2005 after a year considering the issues:

“Teaching children how to link sounds with letters enables them to break the ‘code’ of reading. This is called ‘explicit phonics instruction’ and is the foundation of reading, writing, spelling and comprehension. The Inquiry investigated Australian and international research about the most effective way of teaching children to read. It found that early, systematic and explicit teaching of phonics is a necessary part of an integrated approach to the teaching of reading.”

The National Literacy Strategy in Great Britain examined the best practice in the teaching of reading, including the use of synthetic phonics (teaching students explicitly to convert letters into sounds and then blend the sounds to form recognisable words). Phonics is now part of their new conceptual framework for teaching reading: “High quality phonics teaching secures the crucial skills of word recognition that, once mastered, enable children to read fluently and automatically thus freeing them to concentrate on the meaning of the text…. The best route for children to become fluent and independent readers lies in securing phonics as the prime approach to decoding unfamiliar words.”

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10 National Inquiry into the Teaching of Literacy Australia (December 2005) Teaching Reading A Guide to the Report and Recommendations for Parents and Carers

11 Dept of Education and Employment, 1998 The National Literacy Strategy

12 Primary National Strategy. Phonics and Early Reading: An overview for headteachers, literacy leaders and teachers in schools, and managers and practitioners in Early Years settings. UK: Department of Education and Skills http://www.frameworkplanning.co.uk/resources/docs/Phonics_and_early_reading.doc
The National Reading Panel was authorised by Congress and convened by the U.S. Department of Education to examine the research on reading instruction and make recommendations. In analysing the research on phonics instruction the panel identified 1,373 studies that appeared relevant to phonics instruction. The stringent research methodology criteria reduced these to only 38 studies from which 66 treatment-control group comparisons were derived. They concluded “that systematic phonics instruction enhances children’s success in learning to read and that systematic phonics instruction is significantly more effective than instruction that teaches little or no phonics (it) produces significant benefits for students in kindergarten through 6th grade and for children having difficulty learning to read.”

All three Inquiries concluded that phonics is a vital part of learning to read, a stage that everyone has to go through. Even children who learn to read effortlessly and fast still have to develop the part of the brain that processes sounds into letters and back again. Children need systematic phonics to be part of their learning-to-read programme; it demystifies one of the building blocks of reading. All children can benefit from systematic phonics but for those children who have difficulty learning to read, it is essential.

A study in Clackmannanshire Scotland where 300 Scottish children in a lower socioeconomic area were taught by the synthetic phonics method and tested 7 years later showed students’ word reading ability was 3½ years above their chronological age, and that disadvantaged children who could be expected to be further behind were not.

In New Zealand the Ministry of Education has funded research by Chapman, Tunmer and Prochnow. They found that of 152 children identified by their 22 schools as having reading problems, all were, without exception, experiencing difficulties in detecting phonological sequences in spoken words and relating them to letters in printed words (succinctly described by one Linwood College student as “I can’t hear the letters”).

A further study provided teachers of Year 1 students in a number of schools with training and supplementary procedures and materials designed to help students develop phonological skills and the students were taught meta-cognitive strategies for acquiring spelling-sound relationships. At the end of the first year these children showed significant gains compared to another group. By the end of the second year the gains had increased to an average difference of 14 months. Children with lower levels of literacy benefited the most and they concluded that “relatively small changes in the predominant approach to teaching literacy in NZ will greatly increase the overall effectiveness of beginning reading instruction and substantially reduce the number of reading failures especially among Maori children.”

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13 Findings and Determinations of the National Reading Panel, (2005).
http://www.nichd.nih.gov/publications/nrp/findings.htm


Whole language
The whole language approach is based on correct but limited observations of good readers. Early linguistic research noted that good readers did not break down each word into sounds, and not having the advantage of brain imaging, it was hypothesised that readers relied on the meaning and constructed the text, predicting each word rather than decoding it: that we “learnt to read by reading” and by being “immersed” in print. It was assumed that the knowledge of letter-sounds would follow once whole-word recognition was established. Unfortunately for many at-risk children what followed was an inability to decode unfamiliar words.

Based on this model, the three cueing system of reading tutoring was developed. Students are asked to first rely on the semantic cue or meaning: students struggling with a word are asked to read on or back and predict what would make sense in the sentence. The second cue is syntax (grammar): students are asked to guess words that fit with the meaning and the grammar of the sentence. The cue of last resort is the grapho-phonetic or letter-sound information cue: students are asked to look at the beginning sound of the word and guess a word that begins with that letter that would make sense in the context. Students are often directed to the picture to help guess the word. However only poor readers use multiple cues to decode: “Ironically, it is often suggested that the child who struggles to "sound-out" a word is over-depending on grapho-phonemic information, and that the child should be discouraged from paying too much attention to the letters and words on the page. The findings of reading research could not be clearer on this point - when a child is struggling to decode a word, instructing that child to "guess" what the word is, or to use information from illustrations to try to figure out what the word might be steers the child's attention in exactly the wrong direction. The word itself is the single best source of information, and that is where the child's attention should be focused. Poor readers "guess" -- good readers decode, and then ask themselves, ‘Does what I am reading make sense to me?’”

Competent readers read fast and fluently because they have already developed those two phonemic skills sections of the brain and are working from the occipito-temporal part of the brain: for some children getting to this point seems effortless: they require little or no direct phonics instruction; but for most children it requires work and for some children the process is very difficult. They may have missed a vital part of their learning because they changed school or were sick, they may have suffered from glue ear or they may be dyslexic.

Dyslexia
Brain scans show the left side of the brain does not develop in the same way in dyslexics. Adult dyslexics seem to develop parts of the right side of the brain for the purpose of reading. However neurologist Susan Shaywitz in her book *Overcoming Dyslexia* reports that brain scans of dyslexic kindergartners and first graders who have had a year of targeted instruction (manipulating phonemes, building vocabulary, increasing comprehension and improving the fluency of reading) start to resemble those of children

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18 [http://www.sedl.org/reading/topics/cueing.html](http://www.sedl.org/reading/topics/cueing.html)
19 Shaywitz, Susan (2003) *Overcoming Dyslexia*, Alfred Knopf
who have never had any difficulty reading. Early intervention for dyslexic children is critical and it should include phonics.

The Australian National Inquiry into the teaching of reading concluded that “children who are identified as being at risk of experiencing difficulties in learning to read can become successful readers if they develop knowledge of letter-sound relationships, understand the alphabetic system and are taught within an integrated reading approach:

- phonemic awareness; the ability to hear and manipulate the sounds of oral language;
- phonics: the relationships between letters and sounds;
- fluency: the ability to read quickly and naturally, recognise words automatically, and group words quickly;
- vocabulary knowledge: new words and what they mean; and
- text comprehension: understanding what is being read and developing higher-order thinking skills.”

New Zealand does not need to convene its own inquiry, the results around the world support phonics as one vital part of teaching reading especially, but not only, for at-risk children.

## Phonics to prevent reading delays

Professor James Chapman, head of Massey University’s education school believes less than 1% of children are hardwired in a way that prevents them learning to read. There are around a third of students starting Linwood College with delays that mean they will struggle with high school level material.

Phonics is often presented as the dry and dull learning of rules. However Yolanda Soryl, who runs local courses for teachers on how to teach phonics, demonstrates it can and should be fast and fun. She recommends including phonics for 10-15 minutes per day as one part of a balanced reading/writing programme for pre-school and new entrant children. She uses whiteboards, puppets, letter cards and mnemonics; as a result children can be using their phonic knowledge to write unknown words within 12 weeks of starting school.

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21 [http://www.nzherald.co.nz/section/1/story.cfm?c_id=1&objetid=10421073](http://www.nzherald.co.nz/section/1/story.cfm?c_id=1&objetid=10421073)
22 Email address for course information: enquiries @englishpark.co.nz
The impact of health on literacy
The New Zealand Literacy Taskforce\(^{23}\) reported in 1999 that “the ability of many children to learn is affected because they are hungry or sick, have conditions such as glue ear, or are not regularly attending the same school.”

The LANE project health programme has shown that these issues are still having a negative impact on the education of some of our students. Lola was not an easy student in the classroom; she was belligerent and prickly. She had turned down extra help with her reading in Year 9. It was found that she could not read the fine print section of the BURT word recognition test. She was assessed during the Health Expo and referred to the optometrist who prescribed glasses for short-sightedness. Lola had been struggling for some years with this problem and was extremely anxious about her reading; she had refused extra help in Year 9 but accepted it in Year 10. When retested wearing glasses she was able to pass the BURT test but she was keen to finish Toe by Toe anyway because she had found it so helpful.

Methodology
Initial Selection Assessment
2006 started with assessments to determine who should be on Toe by Toe and to get a snapshot of the decoding abilities of the Year 9 and 10 students at Linwood College. The BURT test of word recognition was originally devised for use in Scotland 50 years ago and the word order has been revised twice in 1955 and 1974. The test was revised and standardized for New Zealand children in 1981 by the New Zealand Council for Educational Research. The age norms have been provided for children from 6.0 to 12.11. Word recognition is only one part of the total reading process and comprehension, vocabulary and fluency are also vital skills which are not assessed using BURT. However since Toe by Toe is a phonics-based programme designed to help students who are struggling to decode, BURT is a good means of selecting candidates who would benefit from the programme. In 2006 the level of attainment expected for Year 9 and 10 students was set at 80 out of 110, which meant a word recognition age of 12.3-12.9 years for boys and girls. For most students this would mean they would be at least two years behind their chronological age in decoding or word recognition.

All students who did not reach the 80 mark on the BURT were also assessed with a running record (Probe). This allowed a comparison of the BURT results against a test that also shows accuracy, comprehension and fluency. This test gave a reading age. Both assessments are used at the halfway mark and at the end of the programme to ascertain progress.

All the Year 9 and 10 students were tested and any new students as they started, including students in alternative or adult programmes. In total 571 students were assessed.

In Term 2 the Lucid assessment system for schools (LASS) was used with students on Toe by Toe. This is a fully computerised multifunctional assessment for use with students between 11 and 16 years. It was designed and standardised in the UK and is used to screen students for literacy problems and for the identification of learning disabilities.

Staff training
12 staff worked on Toe by Toe delivery. Two were fulltime and the rest worked with between 1-10 students every week. Tutors were timetabled for up to 3 students per hour so they saw their students for about 15-20 minutes every day. As far as possible we standardised the delivery of the programme.
The seven new staff had a day’s training and then observed other experienced tutors until they felt confident enough to start working with their assigned students. They were encouraged to seek guidance as they needed it and there was training in the use of the Probe, Burt and Lass assessments.

Recording results
Initial, halfway and final test results were recorded on an Excell programme set up for the purpose. Tutors also recorded attendance and the page reached at each session and useful information like the student’s age at starting. Staff kept daily results and entered the data on the spreadsheet for their own students each week. Results were monitored and summarised halfway through the year and at the end of the year.

Test results for students who completed Toe by Toe in 2006.
Initially 482 Year 9 and 10 students were tested and 79 students selected for the programme. The Services Academy, the LAMP, KAP, Luma and Kimihia students (all adult or alternative education courses run by the school) were also assessed. 5 Services students were selected (3 continuing from last year), 2 from KAP and one from LAMP (who was also continuing from last year). Ten Year 11 students of whom 8 were finishing off from last year were on the programme. Twelve Year 10 students out of the 36 selected had begun the programme last year and were continuing in 2006. There were 43 Year 9 students beginning the programme.
11 students were Pacific Islanders and 16 were Maori. 1 student was from the Middle East, 1 from Thailand.

Results for students who completed the course in 2006
Fifty one students completed the course in 2006. The top improvement on a reading level on a PROBE assessment was 6 years (from 9 to 15); the BURT for this student went from a raw score of 60 to 104 (equivalent to going from 9.5 to approximately 14.9 years). Two students made no improvement on a PROBE, though their raw BURT scores went up by 25, from 73-98 and 26 from 74-100. The raw score Burt improvements for the others ranged from 9-47.
Students showed a PROBE average improvement of 2.5 years and a BURT average increase of 29.5 raw score points.
One student completed the programme in 23 sessions: their BURT improved by 30 and their reading age by 3.5 years. Students took an average of 46 sessions. The range was 23-83.

Where possible a 12 month follow-up test, using the BURT and Probe assessments, has been carried out with students who completed the course in earlier years. All but one student continued to make progress after the course was finished. Students averaged .33 year further improvement on the Probe but some students had already
reached the top level in the Probe tests. All students averaged a further 5 raw score point improvement on the BURT.

**The students**

At Linwood College Toe by Toe has been used with adults who have returned to school for a second chance at education. Jay has written about her experiences doing Toe by Toe and phonics: “At the beginning I found it very hard. I was struggling with the sounds and my head was getting sore because it was something I was not familiar with. As time went by I made good progress and was feeling good about myself and I started building my confidence up. I know it was hard for me going right back to the basics of learning. But I had to, to go forward. I am so glad I did it. It has helped me so much.”

“I can’t hear the letters,” said Sam a young adult student studying in the Services Academy at Linwood College. He was describing his reading difficulties; he knew his brain had failed to make the link between some sounds and letters and he was aware of the gap. He completed Toe by Toe and was able to pass the entrance examination into the military, one that he had previously failed and that you are only allowed to take twice. It took Ted 2 ¾ years to finish Toe by Toe. He started Linwood College in Year 9 with a long history of reading failure and had had interventions in all 3 of his primary schools but had reached only a 7 year reading age. His mother had been told he was ADHD but she did not want him on drugs to control it. She believed he was dyslexic. She was a concerned and involved parent and Ted was capable of quite adult conversation, had a good vocabulary, showed a great interest in computers and was an able trampolinist. He had a dry sense of humour but he made reading errors that bore little resemblance to the words on the page – *sugar cane* read as *large camps*. He guessed at words more on the basis of what he believed the passage to be about than any alphabetic principles. Ted will probably never read for pleasure but he can now function independently in the real world. He stayed at school until he had finished Toe by Toe and then he left for an IT course he had applied for. He said Toe by Toe had made a huge difference to him and his mother called in to thank his tutor for the opportunities it had given him. Learning to read at a 12 year level had changed his life.

Sid showed up on the LASS tests as possibly gifted. He is good at maths but reading has always been a problem for him so he had avoided it throughout primary school. He has argued every step of the Toe by Toe process but he believes the programme has made a significant difference to him, particularly his spelling. He says that where once he never did class reading tasks he now knew he *could* read it so he was willing to try. For Sid Toe by Toe changed his attitude to his own ability.

Malcolm had had Reading Recovery as a 6 year old but he still struggled with reading and found it boring, he said he couldn’t be bothered pronouncing the words. His reading age was 9.5 years and his word recognition BURT raw score was 49 (equivalent to 8.03-8.09 years). He wanted quick results and was disappointed not to finish within the year and with some reluctance agreed to continue into 2006. He was troublesome in class, easily distracted and often in the Referral room, but according to his Social Studies teacher he could grasp quite intricate concepts. Malcolm persevered through the year. He was pleased when he was moved into a different class and felt it was a reward for his improved classroom performance, 70% of which he attributed to Toe by Toe. Since completing the programme and moving class he has only been sent to Referral once where previously it
had been a weekly, sometimes daily occurrence. Malcolm lifted his reading age to 14 years and improved his word recognition BURT raw score by 41.

**Learning to read is life-changing**

Almost half our citizens have a level of literacy which means they find it difficult to meet the demands of every day life in this community. There is a lot at stake: “Higher literacy levels are related to higher earnings, higher employment levels, reduced reliance on social welfare, better health, greater participation in cultural and political life, lifelong access to learning and reduced crime rates.” And it is worth doing: the OECD statistics show that a 1% increase in adult literacy produces a permanent 1.5% increase in the gross domestic product.

TV One screened an Exposé programme on adult literacy called “Trouble with Words” on Monday 28th August 2006. “Poor literacy is a hidden problem and the people affected are skilled at concealing their secret. They never carry a pen, they don’t run bank accounts; they always buy the same few items at the supermarket. They slipped through their 10 years at school unnoticed and work hard to remain unnoticed as adults, using every imaginable ploy to conceal the fact that they can’t read menus or food labels at the supermarket, can’t write cheques, read the newspaper or a map, and even dread the phone ringing in case they have to take a message.” It is important to remember that illiteracy is more than an economic problem: it affects all levels of people’s lives and their emotional well being. Stewart had a reading age of 7. He liked fast cars and looking tough but he attended the programme faithfully and after doing Toe by Toe for 10 months he reported that he could now write text messages that his friends could understand and his mother could send him to the supermarket for a particular brand of tomato sauce. He felt as if he was able to function in the world without embarrassment. He left school without completing Toe by Toe, but he left for a job and with a reading age of 11 years. Tom Nicholson calls his new **Phonics Handbook** a “get out of jail card” and that is what learning to read can feel like.

**Conclusion**

Students who have not learned to read well enough to cope with high school level material need remedial help. The best kind of help we can give them according to worldwide research and government inquiries is phonics-based. Ideally we should provide systematic phonics at pre-school and new entrant level but failing that, as at present, a synthetic phonics programme like Toe by Toe is an effective way of improving their decoding ability and giving them a chance of a useful and satisfying life.

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24 Canadian Education Association Policy Brief.
Appendix A
The Burt Word Recognition Test

to is up for big
he at one my sun
went girl boys day some
his that of an wet
love water no just pot
or now things told sad
carry village quickly nurse beware
return scramble twisted journey luncheon
known shelves explorer tongue projecting
terror serious belief events emergency
refrigerator steadiness encyclopaedia obtain overwhelmed circumstances universal
nourishment motionless trudging theory destiny fringe
formulate motionless trudging theory destiny atmosphere
scarcely exhausted labourers urge atmosphere
apprehend reputation humanity excessively philosopher
ultimatet binocular domineer melodrama economy
autobiography contemptuous terminology mercenary glycerine influential
unique microscopical perpetual efficiency
perambulating renown physician champagne exorbitant palpable
hypocritical atrocious constitutionally contagion melancholy
alienate poignancy phthisis ingratiating fallacious subtlety

THE BURT WORD READING TEST
(New Zealand Revision)

© 1981, Scottish Council for Research in Education.
Appendix B
Sample of Probe Assessment

Although people argue about whether aliens have landed on Earth, we do know that alien material, composed of rock or metal, has landed on our planet. Earth, with its atmosphere, is better protected from meteorites than the moon. However, occasionally, meteorites have penetrated the atmosphere and hit the surface of our planet. Usually these chunks of burning rock have splashed harmlessly into the vast ocean, but there is evidence in various regions of the world that they have struck the land. Fortunately this has always been in areas of low human population. A huge crater in Arizona in the USA, more than a kilometre across, is believed to have been caused by a meteorite fifty thousand years ago. In recent times, a meteorite weighing 197 kilograms landed intact on the American plains. Thirty-eight years later, in 1908, an enormous meteorite exploded just before it landed in Siberia, a sparsely populated area of Russia. Trees for a distance of up to ten kilometres in every direction were flattened and the reverberation of the explosion was heard more than five hundred kilometres away.

1. According to the story, have alien beings landed on Earth? How do you know that? IN
2. What are meteorites made of? IN
3. Why do meteorites hit the moon more often than the Earth? IN
4. "...meteorites have penetrated the atmosphere... What does penetrated mean here? VO
5. Why do you think that most meteorites which penetrate the atmosphere usually land in the sea? EV
6. How do we know that meteorites have hit Earth? RO
7. Why have the meteorites that have hit land caused so few deaths? IN
8. In which century did a large meteorite land on the American plains? RO
9. Why were the trees in a ten kilometre radius in Siberia flattened? IN
10. Do you think meteorites are a major threat to Earth? Why do you think that? RA

ORAL READING ANALYSIS

SELF CORRECTIONS ........... ACCURACY / 181 ........ %
READING BEHAVIOIRS
SPEED LOW
HESITATIONS
OMISSIONS
INSERTIONS
DEPENDENCE
OVERALL FLUENCY

READING COMPREHENSION ANALYSIS
LI LITERAL / nil
IN INFERENCE / 5
VO VOCABULARY / 1
EV EVALUATION / 1
RO REORGANISATION / 2
RA REACTION / 1
% TOTAL / 10

SET 18 NON-FICTION
### Figure 2: What the proficiency levels measure

<table>
<thead>
<tr>
<th>Level</th>
<th>Retrieving Information</th>
<th>Interpreting texts</th>
<th>Reflection and evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Locate and possibly reproduce or combine multiple pieces of embedded information, each of which may need to meet multiple criteria.</td>
<td>Either construct the meaning of a complex sentence or demonstrate a broad and sophisticated understanding of a text.</td>
<td>Critically evaluate or hypothesise about a hypothesis by drawing on specialist knowledge and by relating it to the context.</td>
</tr>
<tr>
<td>4</td>
<td>Locate and possibly reproduce or combine multiple pieces of embedded information, each of which may need to meet multiple criteria.</td>
<td>Use a high level of text-based inference to understand and apply categories in an unfamiliar context, and to construct a meaning of a section of text by taking into account the text as a whole.</td>
<td>Use formal or public knowledge to hypothesis about or critically evaluate a text.</td>
</tr>
<tr>
<td>3</td>
<td>Locate, and in some cases recontextualise, the relationship between pieces of information, each of which may need to meet multiple criteria.</td>
<td>Integrate several parts of a text in order to identify a main idea, understand a relationship or construct the meaning of a word or phrase. Compare, contrast or integrate taking many criteria into account.</td>
<td>Make connections or comparisons, give explanations, or evaluate a feature of a text.</td>
</tr>
<tr>
<td>2</td>
<td>Locate one or more pieces of information, each of which may need to meet multiple criteria.</td>
<td>Identify the main idea in a text, understand relationships, form or apply simple categories, or construct meaning within a limited part of the text when the information is not prominent and low-level inferences are required.</td>
<td>Make a comparison or connections between the text and outside knowledge, or explain a feature of the text by drawing on personal experience and attitudes.</td>
</tr>
<tr>
<td>1</td>
<td>Take account of a single criterion to locate one or more independent pieces of explicitly stated information.</td>
<td>Recognise the main theme or author's purpose in a text about a familiar topic, when the required information in the text is prominent.</td>
<td>Make a simple connection between information in the text and common, everyday knowledge.</td>
</tr>
</tbody>
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Appendix D
Linwood College 2006 Toe by Toe Results

BURT Raw score gain 2006 students

Probe gains Toe by Toe Students 2006
Anecdotal Evidence from Toe by Toe

Student A (Pacific Islander) struggled to begin with but is now excited about reading and wants to continue reading after the programme finishes.

Student B (PI) always worked well and made huge gains in BURT score- he is now regularly borrowing books from our library – calls in and changes book every 2 weeks.

Student C thought TbT was stupid but has decided she wants to be an airline pilot and is now working hard as she recognises this is necessary for her to achieve her ambition.

Student D was initially reluctant to attend TbT sessions but after doing the syllable division she recognises it is now easier to tackle the longer words and is trying harder now.

Student Y says “Now I can read better it will help me get a job. TbT makes me think what the word is and I sound it out. If I had had the programme in Year 9 I might have been in a higher class because I would have been able to read. I used to guess words, now I can work them out.”

Student X (adult) was considered too low to be assessed before the programme but by page 101 she requested a BURT assessment herself. She loves it and is considering going to Polytech to do a Certificate in Community Services.

Student Z is on a high and reads aloud with confidence and now wants to read books on his level. He has now twice e-mailed the author of the book TbT and received a reply.

Student E struggled to remember the blends but tried hard and both reading and speed have picked up.

Student F has serious dyslexia and had very low reading age but found after doing the first third of TbT that he could now send text messages that his friends could understand.

Student G’s English teacher believes TbT has helped Daniel with his reading and story writing. He has gone up a level in English and has come out of his shell.

Student H (adult) said” I am able to read most words. I enjoy this. I can do it and I didn’t think I would be able to.”

“Z is working well this term. He’s more independent as a learner and is prepared to try harder when he can’t read something. He seems to be enjoying his work experience and says he can read his recipes OK.” -Science teacher

“J has improved in her reading a lot since she got moved into this class. She was so shy and apprehensive at first but is really doing well now. She says she is more confident with her reading already, and I can notice that, even though it’s her second language.” - English teacher
T has a slight speech impediment which we have worked on during our Toe by Toe sessions at his request. He recently expressed his relief at knowing that he’s getting on top of it. T is over half way through his book and is now realising there are serious gaps in his reading. He has become much more motivated to complete the book as soon as possible because he wants to get into a higher class for next year.

Tx finished the course last year and then came top in her class in English. She is now looking at Year 11 subjects that she says she never thought she’d be able to consider.

M is considering her options for next year as a Year 11 student and she “now thinks she has enough brains” to look at air stewarding as a career.

G is reading his first novel. He doesn’t like reading but feels he’s far enough through his Toe by Toe book to have a go. I’ve offered him a chocolate bar when he’s finished and can tell me about the book. He’s accepted my ‘bribe’.

Student W started Toe by Toe last year but wasn't attending school at all so was dropped. This year started the same way but now seems to be attending school/ Toe by Toe regularly. He has changed from a student who avoided everything to a student who applies himself to the book every time he comes. At our last session he said "I'm getting good at this". This is an enormous change to his confidence in himself and his abilities.

Student J only comes twice a week. She needs glasses but won't get them because she doesn't want to wear them. She works fast when there. Has asked several times “Am I dumb?” She denies mistakes when they occur. Good opportunity to talk to kids like that one on one. If she keeps coming then there will be opportunities to praise working through mistakes, and using mistakes as learning tools.

Initially Student M’s reading rate would be one word every 20 seconds. She would spend a long time looking at each word before she attempted it. Now her speed has increased and her confidence as well. She is almost finished.

Student F has noticed a change in her reading, she can work the words out more easily and she has a lot more confidence when she reads sentences. When she first started she read very quietly and now she reads loudly and I can understand her.

Student H says “It helps me read.” Her Science teacher commented on her increased involvement in class since starting TbT.

Student J was showing another student the book and read it aloud – afterwards he said “I didn’t think I would be able to get those words but I did.”

Student K asked “Can I learn the Science words for Reproduction?” He got all the words correct except for organism (orgasm).
Student L now wearing glasses for reading and her Science teacher says she is now more involved in class. “I can work words out now.”

Student M topped her Science class to the teacher’s surprise. Now more communicative and likes to play word games.

Student N (at 2/3 mark) says “These are easy now. I can do this now, I can read.”

Student O says “My friend was silly to stop TbT – it has really helped me with my reading.”

Student P says “I now feel better about reading and doing my work in class because Toe by Toe helped me to work out the hard words.” Tutor reports that she was very hesitant with sounding words if she thought it was hard for her or if she was not sure, was slow in answering and giving a reaction when asked. After doing Toe by Toe, she is now quite confident in class is more communicative, and works efficiently.

Student Q said “I always find big words hard when I am reading books.” She had difficulties sounding certain words. Now having completed Toe by Toe, her reading has improved, her spelling is great.

Student R said “I learned to read words that I didn’t know how to spell.”

Student S (PI) said “I want to do Toe by Toe because I cannot read properly. I find words hard to pronounce.” He had difficulty sounding words because English is his second language. It used to be that he would ask a friend in Samoan. Before Toe by Toe he found it hard to answer the teacher in class now he has the confidence, he is not afraid, does not ask questions in Samoan and always puts his hands up to answer the teacher in class.

Student T says “I work out words so easy now and love to read more books. I am so proud that I got very good marks on my Burt. And my Mum is very proud when I brought my certificate home. She said she is so proud of me. T enjoyed doing Toe by Toe and would like do Toe by Toe again because it helped him out so much.” He is so confident in class now.

Student U says “I like Toe by Toe because it helps me work out big words, I did not know how to work out and now I find it easy to do that.” Student U is quite intelligent, however she found reading hard to do. After reaching half way in her Toe by Toe, she was identified in the Health tests as needing an eye test. We made her an appointment with the optometrist who said she needed glasses. Some Teachers have commented how U has improved. Her BURT increased to well above the minimum level.
Student V said “I find words hard to read, long words, big words. I want to do Toe by Toe.” He started Toe by Toe and the first day he did 65 pages. He found everything easy until he came to syllable division, he found it hard to do. After doing a couple of pages of syllable division his face would light up in realisation the he could read the words.......even the nonsense words!

Student W said “I don’t like doing Toe by Toe, I find it hard. Now I like Toe by Toe because it has helped me with my reading.”
Student W would rather guess his words when he does not know them. The tutor would let him do it his way and he kept getting it wrong and just waited until he was ready to acknowledge that if he applied the pattern, he would know how to work it out. Only then would he be willing to apply the pattern and would be quite proud of himself for getting it right.

Student AE said “I like doing Toe by Toe with Mrs Murray. I don’t like school work but I like doing Toe by Toe. It helps me with working out hard words.” Student AE found it very difficult to pronounce words, she would mostly get her words all jumbled only sounding the letters she knew in the word. She learned when she applied the patterns and remembered the right sounds, she did very well.

Let one of our students have the last word:

“Now I can read better it will help me get a job. Toe by Toe makes me think what the word is and I sound it out. If I had had the programme in Year 9, I might have been in a higher class because I would have been able to read. I used to guess words, now I can work them out.”