

Struggling readers years 3-8: A practical classroom intervention

Chuck Marriott

There are a number of children who find the process of early literacy acquisition challenging. While most eventually acquire the knowledge and skills needed to process early text, many will continue to lag behind their peers for many years and struggle to read more complex text. (Allington & McGill-Franzen, 2009; Stewart, Martella, Marchand, Martella, & Benner, 2005). Repeated failure has negative consequences and struggling readers find reading a chore to be avoided, with a negative attitude toward reading the ultimate result (Guthrie & Humenick, 2004). The reading skills instruction that is needed for these students requires a specificity and density that may not fit within a typical guided reading lesson but instead can be delivered through a short term, class-based intervention.

For the past thirty years in New Zealand the emphasis on reading acquisition problems has been focused on children at the age of six with the Reading Recovery programme (Chapman, Greaney&Tunmer, 2015). The only other assistance offered by the Ministry of Education is the Resource Teachers of Literacy (RTLit) service and it is only able to service a fraction of the children at need. RTLits are also instructed to prioritise the needs of the children in Years 1 and 3 of the primary school and are rarely

able to assist children in Years 4 to 8 (New Zealand Ministry of Education, 2015). New Zealand primary schools need an affordable, practical way to help their older struggling readers. As usually happens, the onus falls on the classroom teachers and in the face of shrinking budgets they need something that is economical, is easily learned and implemented, caters to different student's needs, and is above all, effective.

While the research about the struggling older reader is not extensive there have been a number of publications that have added to the scholarship on the characteristics of reading interventions that can provide a measure of success (see for example, Al Otaiba & Fuchs, 2002; Roberts, Torgesen, Boardman, & Scammacca, 2008; Wanzek, Wexler, Vaughn, & Ciullo, 2010). Though there is a wide variation with regard to lesson components, time, group size and number of lessons, there are some strong indications of what has been proved to be effective. While the majority of the interventions used in clinical trials look at the effect of enhancing one aspect of reading, such as phonemic awareness, the most successful have a number of components (Wanzek et al, 2010). Among the most powerful are word identification strategies (including decoding), vocabulary, comprehension and fluency. Many older students struggle with more than one of these appropriate accuracy and rate, but also with good and meaningful phrasing and expression" (Rasinski, Padak, McKeon, Wilfong, Friedauer, Heim, 2005, p. 25). Struggling older readers who have had years of slow laborious reading often have habituated slow reading. Even when the text is easy the oral reading is not fluent. Using proven oral reading techniques students can, as they develop decoding ability and vocabulary, improve their fluency also (National Reading Panel, 2000). There is ample evidence to show that repeated readings can improve fluency (Chard, Vaughn, & Tyler, 2002; Scott & Shearer-Lingo, 2002; Alber, Ramp, Martin & Anderson, 2005; Nelson, Alber & Gordy, 2004). The findings from these studies report varying results but overall, repeated reading is considered to be effective. From a teacher's point of view, it is easy to implement and costs nothing extra. Another oral reading technique is the Neurological Impress method, often called echo reading. While there is less research on its efficacy than repeated reading, there is evidence to show that it can produce positive results (Flood, Lapp & Fisher, 2005). A third technique that has research support to improve fluency is to listen to a model of prosodic reading before attempting to read a passage (Rasinski, 2003). The process can be strengthened if the reader then has an opportunity to read the text aloud with the reader.

Decoding strategies

What is not included in the National Reading Panel Report is decoding. This

is because for most children decoding ability follows easily from having phonemic awareness and knowledge of the alphabetic principle. While this is true for the majority of readers, it is not so for the struggling readers. Indeed, "Poorly developed word recognition skills are the most pervasive and debilitating source of reading challenges" (Archer, Gleason & Vachon, 2003, p.90). There are a number of underlying issues that can affect decoding ability for readers at this stage.

A number will still have a persistent weakness with phonemic awareness as it pertains to certain letter combinations such as consonant blends in initial and final positions. They may have good single letter sound knowledge, but are slow in being able to apply that knowledge. Often there is a weakness with more difficult aspects of phonological awareness such as the vowel digraphs e.g. ai, , ee. (Al Otaiba & Fuchs, 2002).

If they are asked to use their limited knowledge to decode multisyllabic words, the task suddenly becomes much more difficult. It has been found that poor decoders have difficulty with reading multisyllabic words even if they are capable of decoding simple words (Just & Carpenter, 1987). This stage starts to occur in the transition between texts graded at a seven to eight year old level or in New Zealand it is known as the shift from the Purple to the Gold on the 'colour wheel' (Ministry of Education, 2003). Texts at this level are longer, have more complex syntax and most start to contain more multisyllabic words. Typically, the student will get the components (Torgesen, J. K., Houston, D. D., Rissman, L. M., Decker, S. M., Roberts, G., Vaughn, S., Wexler, J. Francis, D. J, Rivera, M. O. & Lesaux, N. 2007)).

Key components of reading instruction

The National Reading Panel Report (2000) identified five components necessary to effective reading instruction: comprehension, phonemic awareness, phonics, vocabulary and fluency. The ability to learn and use strategies of comprehension is supported by the students' level of expertise with the other four components. The older struggling readers may not have mastered all aspects of phonemic awareness and phonics but usually have enough knowledge so that only the more complex letter patterns may be troublesome. Vocabulary and fluency need to be targeted as they are two areas that can be strengthened in order for the whole reading process to work more efficiently.

Vocabulary

Recent studies have shown the strong link between oral language and reading comprehension difficulties (Clarke, Truelove, Hulme, & Snowling, 2013). There is a snowball effect with oral language starting at pre-school level that often has an effect on vocabulary development in later years. If a child has poor phonemic awareness at school entry then there is a higher probability that he will experience difficulties with early literacy acquisition (Hulme, Hatcher, Nation, Brown, Adams, & Stuart, 2002).

As the student falls behind the rest of the class in reading and writing, and therefore is not reading increasingly more complex text in greater volume, there is not the exposure to more advanced vocabulary or the frequency of exposure to words in general (Stanovich, 1986). The result is stagnation in vocabulary growth with a compounding effect on reading comprehension. There is a strong relationship between gains in vocabulary and reading comprehension (Clarke et al, 2013). One approach is to teach students using text that contains the more sophisticated vocabulary they need but that would normally be too difficult to use within a traditional guided reading lesson. For teaching reading to average readers the teacher normally chooses text for instruction that that the student can read at 90-95% accuracy. While this may work for teaching younger children at lower levels, such text is often too challenging for the older struggling reader unless some significant modifications to the teaching are made. This can be accomplished by altering the quality and quantity of the teaching scaffolds so that the text becomes accessible to the student. The process entails reading the text to the students, discussing the meaning of the words as they apply to the text and then asking students each to create an oral sentence using the word. The process is even more effective if that sentence is contextualised within a personal experience.

Fluency

When all the elements of the reading process are working in harmony, the result is fluent reading: "reading with

first part of the word correct and make an error on the rest of the word as a result of lack of knowledge of word features or random guessing. What is needed is a strategy to reduce the difficulty of the task; a multisyllabic word analysis strategy that is easy to learn and easy to use (Torgesen et al, 2007; Diliberto, Beattie, Flowers, & Algozzine, 2009). The strategy needs to be flexible and needs to be substantial by going beyond simply learning syllabification rules as that has not been shown to increase reading accuracy (Caney & Schreiner, 1977). It will strengthen by learning to recognise and use morphological aspects of words. By learning to look for and use prefixes, suffixes and stems within words, the reader has an additional knowledge of how words are constructed that can be applied to the task of word analysis.

The challenge

When all of the above components are assembled, the learning needs are phonemic awareness considerable: (as needed), phonological awareness (mainly vowel digraphs), morphological awareness, and strategies to decode multisyllabic words, vocabulary and fluency. Added to this is the need to provide the motivation to engage in the instruction (Roberts et al, 2008). As many older struggling readers are understandably difficult to engage in reading because of repeated failure, the instruction needs to be highly scaffolded so that the students experience success all of the time. If they also can see themselves being successful reading text 30

that previously was too difficult, the motivation is further increased.

While employed as a Resource Teacher of Literacy whose role is to provide literacy support for low progress students, the writer, over a period of six years took up the challenge. The main framework for the intervention was created and implemented with two groups of seven Year 5 and 6 students by the writer. Instruction was daily for seventeen weeks and was modified in response to the students growing expertise. The gains were substantial: a mean increase of 17 months as measured on the Burt Word test. The Neale Analysis of Reading Ability (Neale, 1999) scores were also impressive with a mean increase of 17 months in accuracy and 19 months in comprehension. (see Table 1)

During the following five years the intervention was used with a range of younger students in Years 3 and 4 and has proved effective with all except those students who were not fluent with the use of the basic phonics.

The intervention

Selection, grouping and identification of learning needs of students

The most practical and efficient way of teaching children with similar needs is within a group setting. Students for this intervention can be selected on their decoding ability, as that is most often the main issue (Adams 1900; Perfetti, 1985; Share & Stanovich, 1995; Chapman, Greaney & Tunmer, 2015). The classroom teacher needs a

Table 1: Year 5/6 Reading Intervention 2011

Mean and Range of:

- 1. Burt Word Reading Test
- 2. Neale Analysis of Reading Ability-NARB (Accuracy and Comprehension)

Pre-test May 2-6 Post-test August 22-26 N= 14

	Burt Word Reading Test	NARB Accuracy (months)	Comprehension
	(months)		(months)
Pre test Mean	96 [.]	95	94 .
Post test Mean	113	112	113
Difference	17	17	19
Pre-test Range	13	17	27
Post test Range	39	40	67
Difference	26	23	40

simple and efficient approach to obtain this information. A graded single word reading test can provide sufficient information needed for selection, though it must be stated that this only provides an indication of word reading and not reading competence. In New Zealand the Burt Word Reading Test (Gilmore, Croft, and Reid, 1981) is readily available and in common use. Students who display similar scores and similar strategies when reading unknown words can be placed in the same group for teaching. The ideal group size is three to four (Lou, Abrami, Spence, Poulsen, Chambers, & d'Apollonia, S. 1996). Any larger and it is difficult for the teacher to monitor each student's involvement.

Any intervention is only worthwhile if the new skills learned can be independently used after the intervention

when the child is reading independently. The intervention therefore should occur within the classroom programme and be led by the child's classroom teacher.

Criteria for teaching materials

The teaching materials should employ authentic text although they need to be very carefully selected. Long passages of text can immediately elicit a negative response from the struggling reader so passages of approximately 100-150 words work very well. Because there is a limited amount of text, it needs to be dense in decoding and vocabulary opportunities. The following is a passage that works well for a child with a reading at that of the average nine year old. There are opportunities to learn appropriate vocabulary with what is known as Tier Two academic words

(Beck. McKeown & Kucan, 2002). Examples from the passage below are: hood, courts, ignoring, jibes, wannabe, gangsters, cocked, scowled, gaze, fingered, medal, reminded, borrowing. In addition, many of the underlined words will present opportunities for students to learn how to analyse words.

Battle

. Hey, sole! Bring your moves over here. We gotta get this battle started," Charlie yelled. Timiona pulled his hood over his head and crossed the courts, ignoring the jibes from Lucy and Moera and the other wannabe "Hey, Timiona!" yelled gangsters. Lucy, trying one last time. "Moera thinks you're dumb." Timiona locked eves with Moera. She cocked her head to one side, daring him to look away first. Timiona scowled and dropped his gaze, kicking himself for giving in. He fingered Papa Ari's medal in his pocket. Still there. He wasn't stealing it, he reminded himself. He was borrowing it - and as soon as this was over, he'd return the medal safe.

(Samuela, M. 2014, p. 40)

Suitable texts can be found in many other sources including School Journals but need to be selected very carefully to meet the criteria.

The timing

So that there is a minimal disruption to the classroom routine, the intervention needs to occur during the period timetabled for instructional reading. The lessons should be twenty minutes in duration, approximately the same length

of time a teacher would normally spend with a group during guided reading. In order to have the required impact the intervention needs to be daily for approximately ten weeks.

The routine

The word 'routine' derives their origin from the old French, routine, that translates as a path or way. By having one consistent teaching routine or 'path' the learner is immediately advantaged. Instead of having to listen and interpret a new set of instructions the students' cognitive energy can be directed to the new learning and practice tasks. Students who have found learning to read difficult usually start to enjoy more success as they focus on the lesson.

Instructional strategies

The following strategies that are presented in a tight sequence address the reading skills that have been explored above that are consistently a weakness of older struggling readers: decoding, vocabulary knowledge and fluency. Each day students will initially re-read one or more passages read the previous day. They will then start working on a new passage. For the first lesson only of the intervention there will not be a previously read passage and Step One will be omitted.

Step one: Re-reading

In order to ensure immediate success with familiar text, the students re-read the text that was used the previous day. This is done chorally with the teacher controlling the speed of reading at that of the average ability of the group. Time: 2 minutes

Step two: New teaching

Only one new item is taught each day. The multisyllabic word analysis strategy is taught first and this usually takes about five lessons before the students become proficient with it.

Multisyllabic word analysis strategy

The following process can be useful in helping students to read longer words:

- 1. Look for chunks you know and underline them (chunks are any group of two or more letters) e.g. independently
- 2. Go to the beginning of the word and find the first vowel and then the next letter that is not a vowel and then draw a vertical line. Repeat this process to the end of the word. e.g. in/dep/en/den/tly
- 3. Two vowels stay together, two consonants are split.

This process does not always yield linguistically correct syllables nor does it help with every word e.g. pat/ien/tly; however, it works well enough when combined with letter chunk knowledge.

Very low achieving students can be shown how to analyse and read longer words. If a student still has difficulty blending sounds, this technique is helpful because it reduces the task to small units, usually cvc (consonant, vowel, consonant) or vc. The student pronounces each group of letter sounds and then repeats the process more quickly. The chance of successfully reading the word is very high especially if there is a flexible approach to pronouncing the word. Generally, a student's receptive vocabulary is larger

than their productive vocabulary so the chances are higher if they have heard the word as it may prompt them to say it correctly. (Kamil, 2004).

They are then taught aspects of phonology e.g. oi, igh and/or morphology e.g. inter-, -ment. Until the students are reading text at about a nine-year level there is most likely to be some additional phonological learning required especially with respect to vowel digraphs. One vowel digraph is chosen from the day's reading and taught explicitly using the sequence: Write the word; Write the chunk; Write other words with the chunk. More capable students are taught morphological chunks starting with the most useful prefixes and suffixes.

Time: 4 minutes

Step three: Identifying chunks and syllables

Before the lesson has begun, the teacher has chosen all the words in today's new passage that could pose a problem. These are either presented on a whiteboard or on individual lists for students. The students then identify chunks they know in the words by a line underneath and find the syllables using the technique described below. Individually or together the words are read using the smaller segments. The teacher supports students who have problems blending letter sounds. The same applies for any phonemic awareness issues that arise especially with the writing of the words. Once all the words are identified they are re-read by the group chorally to ensure an accurate recent memory of them.

Time: 4 minutes

Step four: Vocabulary teaching

Any new vocabulary is most likely to be contained in the words in Step Three. The children learn about the meaning of these by orally creating a sentence to show the meaning of each. The teacher assists in this process by leading a discussion on the meanings of the words as they appear in the context of the passage. At this point if there is any confusion the teacher gives a definition of the word, explains why the word has been chosen for inclusion in the passage, uses the word in an oral sentence so the meaning is further clarified and then asks the students to create a sentence using the word and preferably embed it in a personal experience e.g. "I was so embarrassed when my mother wore her pyjamas to the supermarket".

Step five: The reading of today's passage

Now that troublesome words have been identified and their meanings made clear, the passage is read three times. The first time the students follow the text as the teacher reads. The second they read with the teacher as the teacher reads to the pace of the slowest reader. At the third reading, the students read chorally while the teacher observes.

Time: 7 minutes

Step Six: Revisit the new learning Asking the students to explain what they learned quickly revisits the new learning. Time: 1 minute

Step Seven: Independent work

The students now work independently on an activity that extends the vocabulary learning and/or the phonology/morphology learning. While this may

seem like much get through in twenty minutes it can be done if the lessons are paced well.

The intervention described above is highly supportive of the struggling reader because a) the teaching is explicit and directed to specific learning needs b) the texts used are authentic thus helping to ensure the learning is transferred to independent reading, c) the students are highly engaged because the lesson is varied, snappy and at no point too difficult, and d) the students experience success every day because by the third reading they are able to read difficult text with ease. As the students only process small amounts of text each day, the teacher needs to provide opportunities for them to practice using easy and familiar text. Because they have been recently successful in reading, they are more likely to read independently.

The use of context is not taught as a word identification strategy in this intervention. The reason is that "Although reliance on contextual strategies may provide a limited short-term fix for the problems of some struggling decoders, an instructional emphasis on contextual strategies actually encourages children to stay 'stuck' in the beginning phase of reading development." (Spear-Swerling, 2011, p77). By developing better decoding skills, building vocabulary and increasing fluency, the student will be in a better position to use the context to confirm their decoding attempts and deepen their understanding of the passage.. The intervention described offers teachers another approach to assisting older struggling readers within the classroom teaching. The structure of the routine, the very specific teaching and the ability for it to be used with a wide range of ages and abilities makes it a practical option for teachers.

While the set of teaching procedures described above have been used by the writer for several years to successfully teach students in Years 3 to 8, it does have some limitations. It is unlikely to be effective for those students with persistent, deep phonological difficulties, those with severe working memory limitations and those with behavioural issues that are unrelated to learning. The intervention would benefit from an independent research study that could establish the extent to which students make gains in their ability to read and understand increasingly more complex text.

References

- Al Otaiba, S., & Fuchs, D. (2002). Characteristics of Children Who Are Unresponsive to Early Literacy Intervention. A Review of the Literature. Remedial and Special Education, 23(5), 300-316.
- Adams, M. J. (1990). Beginning to Read: Thinking and Learning about Print. Cambridge, MA: Bolt, Beranek, and Newman, Inc.
- Alber, S.R., Ramp, E., Martin, C. M., & Anderson, L. (2005). The Effects of repeated readings and prediction on the reading performance of students with EBD. Thirty-first annual convention of the Association for Behavior Analysis, Chicago, IL.
- Allington, R. & McGill-Franzen, A. (2009)
 Comprehension Difficulties Among
 Struggling Readers. In Israel, S. E.,
 & Duffy, G. G. Handbook of Research
 on Reading Comprehension. London:
 Routledge.
- Archer A., Gleason, M. & Vachon, V.L. (2003). Decoding and Fluency: foundation skills for struggling older

- readers. Learning Disability Quarterly Vol. 26, No. 2, pp. 89-10.
- Beck, I. McKeown & Kucan, L., (2002). Bringing words to life. NY: Guilford.
- Canney, G. and Schreiner, R. (1977). A study of the effectiveness of selected syllabication rules and phonogram patterns for word attack. *Reading Research Quarterly*, Vol(12) No. 2, pp 102.
- Chapman, J.W, Greaney, K., Tunmer, W.E.. (2015). Is Reading Recovery an Effective Early Literacy Intervention Programme for Children Who Most Need Literacy Supports? In W. E Tunmer, W. E., & Chapman, J. W. (Eds.). Excellence and Equity in Literacy Education: The Case of New Zealand. London: Palgrave Macmillan.
- Chard, J., Vaughn, S. & Tyler, B. (2002). A synthesis on effective interventions for building fluency with elementary students with learning disabilities. *Journal of Learning Disabilities*. 35 (5), 386-406.
- Clarke, P. J., Truelove, E., Hulme, C. & Snowling, M. J. (2013). *Developing Reading Comprehension*. Oxford: John Wiley & Sons.
- Diliberto, J. A., Beattie, J. R., Flowers, C. P., & Algozzine, R. F. (2009). Effects of teaching syllable skills instruction on reading achievement in struggling middle school readers. Literacy Research and Instruction, 48(1), 14-27.
- Flood, J., Lapp, D., & Fisher, D. (2005). Neurological impress methods plus. Reading Psychology, 26, 147-150.
- Gilmore, Croft, and Reid, (1981). Burt Word Reading Test- New Zealand Revision. Wellington: NZCER Press.
- Gough, P. & Wren, S. (1998) The Decomposition of Decoding. In H. Hulme and R.M. Joshi (Eds.), Reading and Spelling: Development and Disorders, pp.19-33. New Jersey: Lawrence Erlbaum Associates.
- Guthrie, J. T., & Humenick, N. M. (2004). Motivating students to read: Evidence

- for classroom practices that increase reading motivation and achievement. In. P. McCardle & V. Chhabra (Eds.), *The Voice of Evidence in Reading Research* (pp. 329–354). Baltimore: Brookes.
- Hulme, C., Hatcher, P. J., Nation, K., Brown, A., Adams, J., & Stuart, G. (2002). Phoneme awareness is a better predictor of early reading skill than onset-rime awareness. *Journal of Experimental Child Psychology*, 82(1), 2-28.
- Just, M.A.& Carpenter, P.A. (1987). The Psychology of Reading and Language Comprehension. Newton, Ma: Ally & Bacon.
- Kamil, M.L. (2004). Vocabulary and comprehension instruction: Summary and implications of the National Reading Panel findings. In P. McCardle & V. Chhabra (Eds.), *The Voice of Evidence in Reading Research* (pp. 213–234). Baltimore, MD: Paul H.Brookes.
- Lou, Y., Abrami, P. C., Spence, J. C., Poulsen, C., Chambers, B., & d'Apollonia, S. (1996). Within-class grouping: A meta-analysis. Review of Educational Research, 66(4), 423–458.
- National Reading Panel (U.S.), & National Institute of Child Health and Human Development (U.S.) (2000). Report of the National Reading Panel: Teaching children to read: an evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: reports of the subgroups. Washington, D.C.: National Institute of Child Health and Human Development, National Institutes of Health.
- Neale, M. (1999). The Neale Analysis of Reading Ability. Australia: ACER Press.
- Nelson, J. S., Alber, S. R., & Gordy, A. (2004). The effects of error correction and repeated readings on the reading achievement of students with learning disabilities. *Education and Treatment of Children*, 27, 186-198.
- New Zealand Ministry of Education. (2003). Effective Literacy Practice in Years 1 to 4. Wellington: Learning Media.

- New Zealand Ministry of Education, (2015).

 Resource Teacher: Literacy Professional Practice
 Manual (PPM) Draft. 2015. Wellington:
 New Zealand Ministry of Education
 (MOE).
- Perfetti, C. A. (1985). *Reading ability*. London: Oxford University Press.
- Rasinski, T. V. (2003). *The fluent reader*. New York: Scholastic.
- Rasinski, T., Padak, N., McKeon, C., Krug, Wilfong, L., Friedauer, J., & Heim, P. (2005) Is Reading Fluency a Key for Successful High School Reading? *Journal of Adolescent and Adult Literacy*, 49, 22-27.
- Roberts, G., Torgesen, J. K., Boardman, A, & Scammacca, N. (2008). Evidence-based strategies for reading instruction of older students with learning disabilities. *Learning Disabilities Research and Practice*, 23(2), 63–69.
- Samuela, M. (2014). The Battle. Published in School Journal, 2014, Level 4, 40-45. Wellington: New Zealand Ministry of Education.
- Scott, T. M., & Shearer-Lingo, A. (2002). The effects of reading fluency instruction on the academic and behavioral success of middle school students in a self-contained EBD classroom. *Preventing School Failure*, 46, 167-174.
- Share, D. L., & Stanovich, K. E. (1995).

 Cognitive processes in early reading development: Accommodating individual differences into a model of acquisition. *Issues in Education: Contributions from Educational Psychology*, 1, 1-57.
- Spear-Swerling, l. (2011). Phases in Reading Words and Phonics Interventions. In O'Connor, R. & Vadasy, P. Eds. Handbook of Reading Interventions. N.Y.: The Guilford Press.
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy.

 Reading Research Quarterly, 21, 360–406.
- Stewart, R.M., Martella, R.C., Marchand-Martella, N.E. &Benner, G.J. (2005).

LITERACY FORUM N.Z.

Vol. 31 No.1 2016

Three-Tier Models of reading and behavior -IEIBI2 (3), Pg.115-123.

Torgesen, J. K., Houston, D. D., Rissman, L. M., Wexler, J. Francis, D. J, Rivera, M. O. & Lesaux, N. (2007). Academic literacy instruction for adolescents: A guidance document from the Center on Instruction. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Wanzek, J., Wexler, J., Vaughn, S., & Ciullo, S. (2010). Reading interventions for struggling readers in the upper elementary grades: A synthesis of 20 years of research. Reading and Writing, 23(8), 889-912.

Author



Chuck Marriott

Chuck currently is employed as a Resource Teacher of Literacy in North Canterbury. As managing Director of Literacy Innovators, Chuck is currently de-

veloping processes and products to ensure that literacy learning difficulties are identified and addressed early in the first year of school.