The cover picture is a drawing by Caitlin Hartnett-Poelman. Caitlin is 13 years old and is a Year 9 student at Palmerston North Girls High School. The picture is a water colour pencil drawing of the native kōkako. Caitlin got her inspiration for the drawing because not many people know that this beautiful bird is on New Zealand's endangered species list. Caitlin's interests include art, netball, netball umpiring, volleyball, reading and skiing. Art is her favourite subject at school which she plans to continue studying and sees it as a possible future career.
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Editorial

According to Check and Schutt (2012) it has been traditional for university researchers to be seen as the ‘makers’ of knowledge, and teachers the ‘doers’. What has often occurred in educational research is the ‘knowers’ would study the ‘doers’ and any conclusions would be used by policy makers to improve teaching and learning. However, over the last twenty to thirty years, this approach to educational research has been questioned and critiqued. One criticism to arise from this critique is the potential for this approach to exasperate the gulf that can exist between theory and practice. Another is the growing body of educational research that is not accessible to, or accessed by, teacher practitioners. In response to these criticisms, the notion of teachers as the ‘makers of knowledge’ has emerged. In particular, the idea of practitioner research and inquiry has grown as a legitimate form of research.

In this edition of Kairaranga, readers will see examples of practitioner research and inquiry. This includes a paper by Angela Evans, Alison Arrow and Keith Greaney who discuss a study focused on analogy instruction where children develop a system of recognition of shared patterns within words and strategies for applying them to reading and spelling in context. Continuing with the theme of practitioner research and inquiry, Shirley Craig and Judy Allison describe the Boxall Profile as an assessment and intervention framework designed to support disadvantaged children in mainstream schools, and Lesley Burkett discusses the effects of poverty on the learning and behaviour of students. The use of the Ling Sound Test and its relevance in the New Zealand classroom is the topic of a paper by Scott McDonnell, and Miriam Ferguson critiques the use of teacher-aides in New Zealand classrooms, and argues for a careful consideration of their use.

As well as creating evidence by way of practitioner research and inquiry, critiquing current research and practice is an important aspect of the role of the teacher. This is the focus of two papers in this edition of Kairaranga. Carol Dickinson and Jayne Jackson describe how they investigated a model of evidence-based practice (EBP) to review a behaviour management programme. Similarly, Rubina Wheeler, a Lead School Principal and Paul Mitchell, an RTLB Cluster Manager, discuss a process of joint cluster review. In this paper, Rubina and Paul describe how two RTLB clusters conducted a review of each other’s clusters to inform strategic and annual plans.

Finally, I know that readers of Kairaranga will need no introduction to Emeritus Professor Russell Bishop. We were privileged to interview Emeritus Professor Russell Bishop as he embarks on his new adventures in education as an international consultant. We asked him to reflect on his ground-breaking Kaupapa Māori research over many years in the Te Kotahitanga Project in our secondary schools.

We hope that readers enjoy this edition. Thank you to all our contributors.

Ngā mihi nui
Alison Kearney, for the Kairaranga Editorial Team

An Interview with Emeritus Professor Russell Bishop

With Cath Steeghs, RTLB/BOS Facilitator and Lyn Rogers, BOS Project Director at Fairfield College, Hamilton

We were privileged to interview Emeritus Professor Russell Bishop as he embarks on his new adventures in education as an international consultant. We asked him to reflect on his ground-breaking Kaupapa Maori research over many years in the Te Kotahitanga Project in our secondary schools. The evidence, collected over multiple phases of this project, demonstrated that the successful enhancement of Maori student achievement could be found through utilising the Effective Teacher Profile (ETP), a whanaungatanga relationship-based tool.

What else is there to know about you? Are you a gardener, a cook, do you collect stamps or anything? What else has been another passion of yours?

Nothing really, I don’t do anything else. I used to go and do a bit of fishing and I was pretty hopeless at it. I tried golf because of my younger son, but I wasn’t good enough at that, kept on going off and getting distracted. This (Maori student achievement) has been every thought: every waking thought and every sleeping thought. I have been waking up at 2 o’clock in the morning, getting up and finishing reports, writing them, then because you would wake up and your mind would be going and it’s really fresh and you go for it. You get so excited don’t you, and you think “Wow” and you see schools changing and you can see the opportunities for young people actually change, and you see the other downstream effect of that is that it is going to be a different society.

How did you become interested in Maori Student achievement?

A friend of mine, Bruce Wilson and I were asking ourselves this one day recently. He is another educational researcher. He is a private consultant in the United States. We decided it was really because of our first job, which was teaching in Porirua together from 1973 to 1975 at Mana College. We didn’t believe any of that stuff that people kept telling us when we kept asking “How come these kids aren’t doing well?” We kept on getting all of these stereotypes: parents don’t care; kids don’t care; the kids are on drugs, well it was alcohol in those days;
we will give you time to do it?” I couldn’t believe my 
at the time. They asked “Would you like to do a PhD if 
University. They were just opening up Maori education 
in Wellington, soon to be followed by a move to Otago 
I left there and went and got a job at Teachers College 
were Pakeha. and the sports prize winners were 
the kids coming up and getting the academic prizes 
leadership but still, when it came to prizegiving, all 
myths and stereotypes about people. We had good 
achievement patterns were similar. However, we did 
it was a new school with a lot of new staff, the 
a lot of kids from Porirua East as well. Although 
were a lot more Polynesian kids because there were 
failing there either but they did. At Aotea, there 
more kids and they played basketball with their kids, and were all tied into the Church, all that 
sort of stuff. We knew that the one thing that Maori 
(and Pakeha people) in those suburbs wanted for 
their children was a decent education. We felt that 
the stereotypes held by the teachers were holding 
everyone back. We put into place approaches to 
teaching which we would now call relationship-based 
learning and we worked on discursive practices and 
all of that sort of stuff. It was a very rewarding place to 
teach! I loved it, really loved it because the kids were 
just really keen to get in there and succeed and we 
got to know the people in the community. Bruce ran 
the basketball team, I had a football team. They were 
our eyes into the community and into the school. 
Bruce had a van and he would take his team to town 
every Friday night to play basketball and honestly, it 
was the 70’s and with their long hair, man these guys 
looked rough. The boys loved him. They would go 
anywhere for him. I have still got friends from that 
school (kids). I went back there a while ago and I 
met a whole bunch of them who were working at the 
Polytech, and they are now in their 50’s.

I didn’t believe the stereotypes they told us, and 
that’s where the problems that students, teachers and 
families were having at school were coming from. So 
my earliest concern about Maori student achievement 
came from my experience at that school; my very first 
experience of teaching and we didn’t believe that those 
kids should be achieving at that rate in that way.

I taught for 14 years in Porirua. I started at Mana 
College, then worked at Aotea College across the 
harbour. I didn’t believe that those kids should be 
failing there either but they did. At Aotea, there 
were a lot more Polynesian kids because there were 
a lot of kids from Porirua East as well. Although 
it was a new school with a lot of new staff, the 
achievement patterns were similar. However, we did 
have a Principal who was pretty keen on destroying 
myths and stereotypes about people. We had good 
leadership but still, when it came to prizegiving, all 
the kids coming up and getting the academic prizes 
were Pakeha. and the sports prize winners were 
Maori or Pasiifika.

I left there and went and got a job at Teachers College 
in Wellington, soon to be followed by a move to Otago 
University. They were just opening up Maori education 
at the time. They asked “Would you like to do a PhD if 
we will give you time to do it?” I couldn’t believe my 
luck! I did my PhD in 3 years. Well I had been a high 
school teacher for 14 years and as a teacher you can 
juggle six things at once. So when they said to me that 
they will give me an office on my own, and a lighter 
teaching load, I said “Let me at it”.

I was already doing a study on my mother’s family 
but the methodology that I developed for my masters 
and PhD studies sought to actually identify how a 
researcher could engage in ways that Maori people 
understood, that were fundamental to Maori families, 
in other words, whakawhanaungatanga (relationship 
building). When I came up here to the Waikato it 
seemed that here was a great opportunity to apply 
what I had learnt from those earlier studies about the 
centrality of relationships, to classroom practices. I 
developed this understanding in a book that became 
the founding hypothesis for what developed into 
Te Kotahitanga. It was really exciting, the evolution 
and the implementation from phase to phase. We 
obviously analysed what was going on in each 
phase and had a look at what could have been 
done better. Phase 1 showed us that we could do it. 
Phase 2 showed us that we had to do it as a whole 
school. Phase 3 showed how we could do it in every 
classroom and in the whole school which we then 
applied in Phase 4. At that point, we had to write 
another book “Scaling Up” about how leaders could 
support the classroom changes that were taking place 
in their schools. With Phase 5 we were fortunate to 
be able to say “Right Principals, here’s your job: use 
the GPILSEO model and create the wider context for 
reform in your school”. “Teachers and mentors, use 
the GEPRISP model and create the context by which 
learning takes place in the classrooms”.

The other thing we sorted out was that the first three 
years in each school went well because they had 
external funding to support the mentoring/facilitation 
function. Implementation in Years 4-6 wasn’t so good, 
as some schools could reprioritise funding to sustain the 
reform process, but some couldn’t. So the big question 
was “How do we support schools to reprioritise funding 
so as to sustain the reform in their schools?”

After 10-12 years of Te Kotahitanga, we can now 
say we know what works. More importantly, all 
the meta-analyses and research by people like John 
Hattie, Adrienne Alton-Lee, Helen Timperley and 
Viviane Robinson confirm that it is fundamentally 
important to have what can be termed relationships-
based teaching at the centre of educational reform. 
We have also shown that the Effective Teacher Profile 
(ETP) is an example of relationship-based teaching in 
practice and is also what whanaungatanga looks like 
in practice.
What are some of your reflections from the Te Kotahitanga Project?

People say to me that teachers are resistant to change and my reply is “I couldn’t agree with you less”. What they are resistant to is another ‘good idea’ coming along – the ‘next best thing’, the ‘bold new initiative’ - and I quite agree with that. I would be hiking out the door too if someone came along and said they had a new idea without evidence to back it up. Evidence-based practitioners don’t want to pick something up if there is no evidence that it will work for kids. We can now say that if you implement the Effective Teaching Profile and you do it with integrity, you will get these results (enhanced Maori student achievement). Given the amount of research that has occurred in the past decades, and the number of effective programmes that have been developed, I do not think that school leaders and teachers should accept any new programme that does not identify its research base, its evidence of effectiveness or does not predict the level of outcomes that can be expected.

What makes things worse is that the fundamental problem in New Zealand education, actually with education right around the world, is that we don’t have a common code of practice. We need a common understanding about what practitioners actually do.

So what you get is the majority of secondary school teachers still teaching the way you and I were taught when we went to secondary school. So then people get stuck into the teachers. We are expecting these folk to go out and reinvent their practice. We don’t expect doctors to reinvent their practice, or lawyers to reinvent their practice. We can’t go to a judge and say “Let’s have a crack at it from another way, shall we?” A judge would probably have a heart attack if we said “Let’s try guilty until proven innocent or something like that!” If we had a common code of practice, we would understand what we should be saying and doing, and how to make a difference.

These things take time and you’ve got to go through a scientific approach, policies and experiments to see how anything works and see how it will be developed and phased in. You can’t just get a group of people in a room and ask them to give you the answers and put it in a report and call it research. We experimented for over twelve years and managed to increase the effectiveness of the project with each phase until now in Phase Five, most schools are very effective.

What would your words of wisdom be to those at the chalkface still wanting to enhance their practice around Maori student achievement?

The Effective Teacher Profile is the key. This can be broken into two parts for argument’s sake, so you can actually talk about it. But it is a holistic device and needs to be put back together again in practice. In our early work we interviewed 300 - 400 Maori kids and they told us that it was those teachers who were able to create caring and learning contexts together who made a difference for them. This understanding was also found in my original analysis of what constituted whanaungatanga in research and classrooms and then through practice in Te Kotahitanga, and was developed into the two dimensions of the Effective Teacher Profile: relationships (caring) and discursive practice (learning). The research demonstrated that those teachers who have low levels of caring and low levels of teaching, were not able to create effective learning contexts for Maori students, but for those teachers who had high caring and high teaching, their students will learn. We also showed that you could be kind, patient and empathetic, but without the discursive practices you would be less effective. Also, most importantly, we found that any teacher who had low caring (relationships) could not, and did not, actually use effective pedagogies. So statistically, we showed that when you have teachers forming a foundation of care, high expectations and high standards in the classroom, this allows them to teach in the ways that Hattie and all the others have shown to be effective. When you have got those two working together they feed off each other. In other words, the development of caring relationships enables teachers to teach effectively. So what the kids had said was true. So that’s what you tell young teachers: “Be assured that we know what we are doing because there is 15 years of work behind us and here are the results of that work. It is not just a good idea that I had on the way to class”.

From that starting point, Te Kotahitanga actually breaks down classroom walls, it breaks down the competition and it brings unity, if through no other vehicle than the co-construction meetings where people are coming in and saying “I’ve got the same kids as you, and here is my evidence of how well they have done”. People are starting to collaborate. The relationships between the professionals are absolutely crucial effecting change. The Effective Teacher Profile is what whanaungatanga looks like in practice to describe both the relationships between teachers and students and among teachers as well.

What advice can you offer principals and leadership teams who are continually being bombarded with the next best thing?

You stick to your knitting and you work out where you want to take your school using the GPILSEO model as a guide. You work out where the school needs to
go and anything that comes along needs to be able to advance things in the direction you want your school to go. Good leadership says “Right, the school is going in this direction: if it fits in with our plan, we are going to take what you have to offer and we will put it in here”. Make decisions based on the school plan, making everything fit into that. I would suggest that key to such a plan being effective is the type of pedagogy that is selected for the school to use as a common code of practice. The Effective Teacher Profile is a common code of practice for our schools, it has been proven to be effective and anything new should be selected on the merit of its support for this practice.

REFERENCES


Biography: Professor Russell Bishop PhD

Russell Bishop is a descendent of the Tainui and Ngati Pukeko tribes of New Zealand, and Scots and Irish peoples of Europe. He is the foundation Professor for Maori Education in the School of Education at the University of Waikato, Hamilton, New Zealand. Until recently, he was the project director for Te Kotahitanga, a large New Zealand Ministry of Education-funded research/professional development project that seeks to improve the educational achievement of Maori students in mainstream classrooms through the implementation of a culturally-responsive pedagogy of relations and culturally-responsive leadership. He is the author of eight books and 80 other quality-assured publications. He has delivered over 100 keynote or plenary addresses nationally and internationally, and has attracted approximately $32.5 million in research and development contract funding in recent years.

INTERVIEWER PROFILES

Cath Steeghs

Cath Steeghs has worked in both primary and secondary education. She has been privileged to work as a HOF of English in Brunei and DP in two schools in London, UK. Returning to New Zealand she worked as one of the Associate Principals at Murray’s Bay Primary School. She is a founding member of Kairaranga. Cath is currently part of the Cluster 16 RTLB team in Hamilton and is working with Lyn Rogers in the Building on Success programme at Fairfield College, following on from their work together in Te Kotahitanga over the last five years.

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Lyn Rogers is an experienced secondary school teacher of Science, Biology, and Education for Sustainability. She has previously worked as HOF Science and as an advisor at School Support Services, University of Waikato, and has experience in curriculum implementation at both school and national levels. Lyn is currently working with Cath Steeghs in the Building on Success programme at Fairfield College, following on from their work together in Te Kotahitanga over the last five years.

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A Brief Analogy Strategy-Based Intervention supports the Development of Invented Spelling and Decoding

Angela Evans, Alison Arrow & Keith Greaney

Research Paper

Keywords: analogy instruction, decoding, encoding, literacy, phonological skills

ABSTRACT

Recent research in literacy acquisition has led to an elaboration of instructional programmes that focus on supporting children’s progress through successive developmental levels. An example of such an approach is analogy instruction, the basis of which is that children develop a system of recognition of shared patterns within words and strategies for applying them to reading and spelling in context. This study evaluated the implementation of a modified analogy strategy-based programme. A group of Y3 and 4 children with reading and spelling difficulties were taught, for eight weeks, specific phonological skills and analogy strategies for reading and spelling. The key finding was that the intervention significantly improved children’s letter-sound knowledge, phonemic awareness decoding (non-word reading), and invented spelling skills compared with that of a control group. This finding suggests that an analogy strategy-based programme may be effective in improving children’s decoding and encoding skills.

INTRODUCTION

As their reading abilities develop, children acquire an increasing sight word vocabulary, which consists of words that are securely and completely represented in memory so that their pronunciation, meaning, and spelling can be quickly recalled (Ehri, 1992). Words become sight words through repeated phonological recoding (Ehri, 2005; Share, 2004). The process of phonological recoding involves mapping sounds onto letters, or groups of letters (Share, 2004). According to Share, Jorm, MacLean, and Matthews (1984), phonological recoding skills enable children to decode unknown words, providing a method of self-teaching, and also serving to consolidate visual-phonological pathways in memory for the new words. Difficulty with phonological awareness is one of the most commonly implicated causes of literacy difficulties (Conrad & Levy, 2011; Hoover & Tunmer, 1993; Tunmer & Chapman, 2002). In addition, early phonological skills are highly predictive of later reading ability (Conrad & Levy, 2011). Wren (2000) notes that if children have reading and spelling difficulties in Year 4, they are likely to continue to struggle as they grow older. However, with appropriate intervention, it may be possible to significantly improve the development of children’s phonological skills (Torgesen & Davis, 1996).

Salient features of effective reading and spelling interventions include the use of systematic, explicit instruction in phonological skills, onset and rime-based spelling patterns, and analogy strategies integrated with plenty of contextual reading practice, discussion and writing in response to what has been read (Allen, 1998). Such an approach enables children to develop critical skills for reading along with an interest in, and purpose for, reading (Allen, 1998, 1999; White, 2005). As reading words and spelling them are dependent on the same fundamental orthographic and phonologic information, they may both be taught using analogy strategies (Adams, 1990; Brown, Sinatra & Wagstaff, 1996; Ehri, 1992, 1998, 2000). In fact, Cunningham and Cunningham (1992) note that decoding and spelling are “mirror-like processes” (p. 106). Furthermore, analogy-based programmes do not need to be overly time-consuming, particularly when the teacher implements the programme with the whole class, and is therefore able to embed the strategies throughout the school day (Allen, 1998; Ehri, Satlow, & Gaskins, 2009; Greaney, Tunmer & Chapman, 1997; Lovett et al., 2000; Peterson & Haines, 1992; White, 2005).

The basis of analogy instruction is that children develop a system of recognition of shared patterns within words (Goswami, 1998). Analogy-based programmes utilise children’s knowledge of onset-rime units and rhyme to facilitate reading and spelling. Onset-rime is an intermediate sub-syllabic level between phonemes and syllables (Share & Blum, 2005). A syllable can be subdivided into the
onset and rime. The onset is the initial consonant(s) preceding the vowel, and the rime is the vowel and any consonants that follow it e.g., /-ain/, /-op/ (Adams, 1990; White, 2005). Wylie and Durrell (1970) list 37 rimes e.g., /at/, /ack/, /ap/, /ash/, /eat/, /op/, /ing/ that appear in over 500 common primary school level words. Onset-rime segmentation e.g., /l-ake/, /br-ake/, /s-eat/, /m-eat/ is naturally intuitive to most children and adults, and moderates the level of ambiguity that is typical of written English (Adams, 1990; Goswami & Mead, 1992; Roberts & McDougall, 2003). Analogy instruction involves systematically teaching children how and when to use orthographic rimes e.g., –/at/, –/ice/, –/eat/, –/ope/ strategically in reading and spelling unfamiliar words (Brown et al., 1996).

**Benchmark Programme**

The intervention programme in the current study is based upon the Benchmark Word Detectives Programme, which is an example of an analogy strategy-based approach to reading and spelling instruction (Gaskins et al., 1988; Gaskins, Anderson, & Schommer, 1995). The programme is based on onset-rime analysis and use of analogy strategies with the additions of explicit phonological instruction and contextual practice in applying skills and strategies through reading and writing (Gaskins, 2004). Key findings from research based on the Benchmark Word Identification programme are listed below:

- Analogy strategy-based programmes can be successfully implemented by classroom teachers as an integrated part of literacy instruction (White, 2005).
- Analogy strategy-based intervention has also been implemented as a stand-alone (i.e. outside the regular classroom) programme. Allen (1998) describes such a programme in which 100 percent of primary school aged participants were reading well-below grade level when they entered, and after six months of participation 70 percent were reading at age-appropriate levels.
- Brown et al. (1996) studied the effects of analogy instruction on spelling development. Results showed that children of all abilities increased the rate at which they independently used rimes from instruction to generate spellings. Children with lower spelling achievement demonstrated the greatest gains; in fact, they overtook average achievers and were using rimes to generate spellings almost as often as children achieving in the top third of the class.
- Research indicates that learning outcomes improved significantly when phonological and strategy-based approaches were combined (Ehri et al., 2009; Lovett et al., 2000).

**The Current Study**

The aim of the current study was to implement and evaluate an analogy strategy-based intervention programme to teach phonological skills and analogy strategies for reading and spelling. The hypothesis was that explicit training in analogy strategies would lead to improved letter-sound knowledge and phonemic awareness, gains in decoding and spelling words, and that new reading and spelling skills would generalise to novel words. Phonemic awareness is the ability to understand that words can be divided into subunits smaller than syllables, and the ability to reflect upon and manipulate these speech segments, when represented by letters, to form words (Blachman, 1997; Catts & Kamhi, 2005; Cunningham, 1990; Hatcher, Hulme & Ellis, 1994; Ryder, Tunmer & Greaney, 2007).

**Method**

A non-randomised, pretest-intervention-posttest design was used to compare the performance of a group of Year 3 and 4 children with reading and spelling difficulties with an age and ability matched control group. The participants were 15 Year 3 and 4 children, 12 girls and three boys, aged from seven years and four months to nine years. The participants were selected based on reading and spelling assessment data held by their teachers, and the results of word and pseudo-word reading assessments administered by the researcher. Children with the lowest scores on these assessments were invited to participate in the study, and those for whom consent was obtained were selected. More female than male participants met the criteria for inclusion.

All participants were individually assessed on receptive vocabulary, letter knowledge, analogy use in word reading, phonemic awareness, word reading in isolation, reading connected text, pseudo-word decoding, and spelling pre- and post-intervention. There was no significant difference between the groups on pretest measures except on the invented spelling assessment. However, when the invented spelling
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Assessment was scored according to the number of phonemes correctly represented, no significant difference between the groups was apparent.

The children in the intervention group were taught by the researcher for 32 sessions of 30-60 minutes duration over eight weeks for a total instruction time of 28 hours. The sessions were held at the beginning of the school day, four mornings a week. The children in the intervention group were out of class during registration and the beginning of reading and writing lessons. Therefore, the intervention group received most of their reading, writing and spelling instruction through the intervention in addition to some parts of the class programme. During the intervention phase of the study the control group received no intervention in addition to their regular classroom reading, spelling and writing programme. The duration of the sessions was selected based on research about similar intervention programmes, practicality for the school involved, and the understanding that the specific strategies weren’t being reinforced during the rest of the school day. The programme incorporated key features of the Benchmark Word Detectives Programme (Gaskins, 1998) and followed a structured, predictable sequence of lessons. The programme was modified to be briefer, both in session duration and overall length, in order to assess its potential for use in New Zealand classrooms. Activities were designed to be engaging, interesting, and multisensory in order to maintain children’s enthusiasm and motivation. For example, in the activity ‘What’s In My Head?’ (Gaskins, 2005) up to five clues were verbally provided on the identity of a mystery word that shared a spelling pattern with a key word (Figure 1). Children wrote a guess for every clue, modifying their answers as new clues were provided. This fun activity engaged the children in thinking creatively about orthographic and phonologic features of words.

A set of key words and a poem containing key rimes were introduced in the first session each week. Initial consonants or consonant clusters were selected to provide instruction and practice with a range of blends, digraphs, and consonant strings (e.g. string, bl-ack, br-ight, sn-ore). Some specific activities that were included in the weekly cycle were, for example, word analysis, in which the key words were fully analysed using a template (Figure 2). Word analysis was initially done collaboratively, with children writing responses on the form. Over time, this process became familiar enough to be completed verbally by individual children using the template as a prompt. Some examples of other activities included in the programme were:

- generation of lists of rhyming words and sorting them according to rime and/or rhyme
- decoding challenging multisyllabic words containing key rimes
- swapping onsets, rimes, or vowels to create new pseudo-words, which were then decoded before being presented to a partner to attempt.

**Figure 2. The Talk to Yourself Word Analysis Chart (Gaskins, 2005).**

A one-way analysis of variance (ANOVA) was conducted to compare the mean scores for each of the assessments for the control and intervention groups at the pretest phase. Both groups improved in their knowledge of letter sounds, however, the intervention group made significantly (F(1,13) = 6.56, p = .024) more progress (see Table 1). In addition, the intervention group made significantly (F(1,13) = 4.94, p = .045) greater improvement in phonemic awareness than the control group as measured by the Gough-Kastler-Roper (GKR) Phonemic Awareness Assessment (Gough, Kastler, & Roper, 1984), a language assessment that measures children’s understanding of, and ability to manipulate, individual phonemes in words.
Table 1
Means and standard deviations for measures of letter sound knowledge reading as a function of group and time of testing

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention n=8</td>
<td>Control n=7</td>
</tr>
<tr>
<td></td>
<td>M    SD</td>
<td>M    SD</td>
</tr>
<tr>
<td>Letter Sounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower case (26)</td>
<td>22.25 2.05</td>
<td>23.29 1.50</td>
</tr>
<tr>
<td>Upper case (26)</td>
<td>22.63 2.72</td>
<td>23.86 1.95</td>
</tr>
</tbody>
</table>

The intervention group also made significant ($f(1.13) = 17.97, p = .001$) gains in invented spelling compared with the control group (Figure 3). In addition, the children in the intervention group spelled words with increasing conventionality, even if they were still incorrect. For example, at pretest a child spelled the word *fill* as *filp*. At posttest her attempt, *fil*, while still incorrect was more conventionally spelled and more phonetically accurate. Similarly, another child spelled the word *yell* as *yeuy* at pretest, and *yal* at posttest. Similar improvements in conventionality were not present in the control group. However, in a standardised spelling test, the South Australian Spelling Test (SAST); (Westwood, 2005), whilst the intervention group had higher mean scores than the control group at both pretest ($m = 25.75$) and post-test ($m = 28.75$), the difference in progress made between the two groups did not reach significance ($f(1.13) = 2.91, p = .112$) (Table 2).

Figure 3. Mean number of words spelled correctly in the Invented Spelling Test (Nicholson, 2005) for the control and intervention groups as a function of time of testing.

Table 2
Means and standard deviations for measures of spelling as a function of group and time of testing

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<tr>
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<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention n=8</td>
<td>Control n=7</td>
</tr>
<tr>
<td></td>
<td>M    SD</td>
<td>M    SD</td>
</tr>
<tr>
<td>Invented spelling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total words (18)</td>
<td>10.63 2.45</td>
<td>7.71 4.11</td>
</tr>
<tr>
<td>Phonemic scoring (72)</td>
<td>59.13 5.74</td>
<td></td>
</tr>
<tr>
<td>Total words (70)</td>
<td>51.00 8.52</td>
<td>65.88 4.51</td>
</tr>
<tr>
<td>South Australian Spelling Test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total words (70)</td>
<td>25.75 4.71</td>
<td>22.29 6.58</td>
</tr>
</tbody>
</table>
Use of Analogy Strategies

Spelling tests comprising 25 words containing the key rime patterns, that is, words that were analogous to key words (excluding actual key words) from current and previous weeks, were administered weekly from Week 5 to Week 8. These tests provided a measure of how well the children were able to use an analogy strategy to spell novel words. The number of words spelled correctly by each participant is displayed in Figure 4.

![Figure 4](image_url)

*Figure 4. Number of correctly spelled words for each child in the intervention group as a function of a four-week intervention programme.*

Note: Child D was absent in Week 7

Word Reading and Decoding

The Burt Word Reading Test (Gilmore, Croft & Reid, 1981) was used to assess the children’s ability to read real words isolated from context. At pretest, the control group \((m = 37)\) and intervention group \((m = 38)\) means were similar (Table 3). Post-test means were 45.38 for the intervention group and 37.86 for the control group. However, this difference did not quite reach significance \((f(1.13) = 4.24, p = .06)\).

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
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<td></td>
<td>Intervention</td>
<td>Control</td>
<td>Intervention</td>
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<tr>
<td></td>
<td>(n=8)</td>
<td>(n=7)</td>
<td>(M)</td>
<td>(SD)</td>
</tr>
<tr>
<td><strong>Bryant Test of Basic Decoding Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total words (50)</td>
<td>12.63</td>
<td>5.40</td>
<td>15.43</td>
<td>5.47</td>
</tr>
<tr>
<td><strong>Burt Word Reading Test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total words (110)</td>
<td>38.00</td>
<td>11.15</td>
<td>37.00</td>
<td>9.83</td>
</tr>
</tbody>
</table>

In addition, the intervention group made significantly \((f(1.13) = 15.33, p = .002)\) greater gains than the control group in decoding, indicated by a pseudo-word reading assessment (Figure 5).
Reading in Context

The results of the Neale Analysis of Reading Ability (NARA) (Neale, 1999) produced separate scores for accuracy, comprehension, and rate of reading in context. The intervention group scored higher on all three sections of the Neale at both pre- and post-test (Table 4), but the difference between their scores and the control group’s scores was not significant.

Table 4
Neale Analysis of Reading Ability (NARA) as a function of group and time of testing

<table>
<thead>
<tr>
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<th>Pretest</th>
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<tr>
<td></td>
<td>Intervention</td>
<td>Control</td>
<td>Intervention</td>
<td>Control</td>
</tr>
<tr>
<td>n=8</td>
<td>n=7</td>
<td>n=8</td>
<td>n=7</td>
<td></td>
</tr>
<tr>
<td>Accuracy</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>26.63</td>
<td>5.48</td>
<td>22.86</td>
<td>8.95</td>
</tr>
<tr>
<td></td>
<td>31.25</td>
<td>9.45</td>
<td>24.71</td>
<td>8.36</td>
</tr>
<tr>
<td>Comprehension</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>11.00</td>
<td>1.60</td>
<td>10.29</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>14.38</td>
<td>4.31</td>
<td>11.14</td>
<td>3.80</td>
</tr>
<tr>
<td>Rate</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>49.38</td>
<td>19.62</td>
<td>45.57</td>
<td>25.13</td>
</tr>
<tr>
<td></td>
<td>45.50</td>
<td>13.80</td>
<td>37.43</td>
<td>15.58</td>
</tr>
</tbody>
</table>

In summary, the groups possessed comparable levels of receptive vocabulary, phonemic awareness, and reading and spelling achievement at pre-intervention. The results showed that the intervention group made greater gains than the control group in letter-sound knowledge, phonemic awareness, decoding, and invented spelling. However, there were no significant differences between the groups’ rate of progress in standardised word reading and spelling. This may be attributed in part to a lack of specificity in standardised measures, and the brief duration of the programme.
Discussion

The hypothesis of this study was that explicit instruction using analogy strategies would lead to improved letter-sound knowledge, phonemic awareness, decoding, and spelling, and that these improvements would facilitate generalisation of skills to non-instructed words for Year 3 and 4 children with reading and spelling difficulties. The results of the study support the first part of the hypothesis but not the generalisation reading and spelling in context as measured by standardised assessments. However, children in the intervention group did demonstrate increasing proficiency in applying analogy strategies to spelling uninstructed words. It is possible that generalisation would have begun to occur if the intervention had been in place over a longer period of time. However, even given the brief duration, the results of this study are promising.

The intervention group made significantly greater gains in phonemic awareness than the control group during the intervention. This indicates that children in the present study were at a developmentally-appropriate stage to take full advantage of analogy strategy instruction. The intervention group also made significant progress in decoding. This result can be explained in terms of the phonological awareness focus of the modified Benchmark Programme. Children learned to fully analyse words using the steps in the *talk to yourself word analysis chart* (Gaskins et al., 1998), and as a result, were able to pay attention to all of the grapheme-phoneme correspondences in words, rather than, for example, concentrating overly on boundary letters (characteristic of readers with developing levels of phonemic awareness) (Spear-Swerling & Sternberg, 1996). The participants were effectively armed with a set of efficient strategies with which to approach the decoding of, and invent spellings of, unknown words. The programme enhanced their phonological skills and advanced their decoding abilities towards a subsequent developmental phase. Similarly, the intervention group’s spelling scores indicated that they had, on average, advanced in terms of the way they spelled words according to the phase model of spelling acquisition. Furthermore, increased conventionality in spelling indicates progression in the developmental spelling phase that reflects children’s increasing knowledge of phonology, orthography and the alphabetic principle (Sénéchal, Ouellette, Pagan & Lever, 2012).

The results of the present study indicate that analogy-based instruction is potentially beneficial for students in New Zealand classrooms. Although the study has been to some extent limited by its small sample size and separation of the intervention from regular classroom activity, the results were consistent with previous research findings that demonstrate the utility of combining spelling and reading instruction in literacy programmes.

References


An examination of the skills and strategies used by early readers. *Journal of Experimental Child Psychology* (84), 310–337.


AUTHOR PROFILES

Angela Evans is an intern educational psychologist currently completing the Post Graduate Diploma in Educational Psychology at Massey University and is placed as an intern at the Ministry of Education. She trained and worked as a primary school teacher in Oxfordshire, UK, which ignited an interest in the field of educational psychology. On returning to New Zealand Angela combined raising her children with studying educational psychology. Angela has a particular interest in the implementation of evidence-based practice and social neuroscience. She is passionate about supporting children to engage and succeed in education.

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Dr Keith Greaney is a senior lecturer in the Institute of Education at Massey University where he teaches both undergraduate and post-graduate papers in literacy education. He also researches and supervises students completing research theses in the area of literacy learning difficulties. Keith was a primary school teacher for 28 years including twelve years as a Resource Teacher: Literacy.

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Alison Arrow PhD, is a senior lecturer in literacy at Massey University. Alison’s research interests include the development of emergent literacy, particularly alphabet knowledge and phonological awareness, and what knowledge primary-school children use to read and spell. Alison is currently involved in research that examines how children use digital technology for their literacy learning, and in longitudinal research following children learning to read and write.

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In June 2014, the Lead School Principals and Cluster Managers from Resource Teachers: Learning and Behaviour (RTLB) Cluster 16, Hamilton, and RTLB Cluster 20, Rotorua/Taupo discussed the possibility of conducting a review of each other’s clusters to inform strategic and annual plans. Being two and a half years since the transformation of the RTLB service in New Zealand/Aotearoa, it seemed timely to get feedback from schools and RTLB about what was valued in the service at the moment, and also to ask for ideas for future focus.

**RTLB Clusters 16 and 20 Review Process**

The process started with a meeting to negotiate the scope of the review and the methods to be used. This meeting included Rubina Wheeler and Bruce Walker, Lead School Principals, and Tracy Fraser and Paul Mitchell, Cluster Managers, and was facilitated by the visiting Lead School Principal. The purpose of the review was discussed, and those present were asked to share what they saw the purpose of the review as being. Also discussed were ideas for how to best elicit useful responses from cluster RTLB and principals to inform future focus for improvement to the service, and also what cultural considerations were appropriate when visiting each of the clusters and their schools. It was decided that the negotiated process would be emailed to all cluster schools to inform principals and RTLB of the impending reviews and of their intended purpose.

The Lead School Principal and Cluster Manager from each of the two clusters further negotiated how many school principals in their cluster would be interviewed by the visiting Lead School Principal and Cluster Manager, and how many RTLB would be interviewed. It was also agreed that all cluster school principals and all RTLB should be given the opportunity to submit written responses to the reviewers, using the same questions template that would be used in the interviews.

In selecting which cluster school principals to interview, consideration was given to ensure feedback from schools of varied decile ranking, and also secondary, intermediate, kura kaupapa Maori and primary schools. In addition to the cluster schools’ principals being interviewed, the reviewers also interviewed the Lead School Principal, Cluster Manager, Board of Trustees Chairperson, Lead RTLB and Practice Leaders. Interview questions were given to principals and RTLB prior to the day of the interview to allow for the most considered responses. The review process was conducted over three school days and started with a mihi whakatau to introduce the visiting Lead School Principal and Cluster Manager to all of the cluster’s RTLB staff.

Reviewers introduced themselves to the hosting cluster, to put context around the process e.g. “Your cluster has requested a review”. Reviewers talked about the possible limitations and benefits of the review, and the interview questions were shared with everyone. All were given electronic and hard copies of the interview questions to complete written responses and email them to the visiting Lead School Principal if they chose to i.e. all RTLB had an opportunity to participate in the review process.

The questions posed in the review were as follows:

- What should RTLB Cluster (NAME) keep doing?
- What should RTLB Cluster (NAME) stop doing?
- What should RTLB Cluster (NAME) start doing?

These questions were chosen to provide opportunities for celebration for what was perceived to be working well with the RTLB service, and also to identify areas for improvement of the RTLB service.

The reviewers further clarified that names and written material on interview forms were to be considered as private. Only summaries of interviews would be shared to allow participants to feel secure that they were able to speak frankly about their experiences of the service and ideas for future focus. There was provision for participants to sign the form if they wished to as some participants were happy to be identified.

RTLB were interviewed singly by either the visiting Lead School Principal or the visiting Cluster Manager,
and Principals were interviewed by both the visiting Cluster Manager and Lead School Principal. At the end of each review day the responses were collated and a tally kept beside each response to show the number of respondents who shared the same thoughts. The views that scored the highest on the tally, feature in that prioritised order in the final report. To be responsive to the review, clusters were invited to consider more popular responses as priorities in their strategic and annual plans. Views that were only expressed by one respondent, and that were contrary to views expressed by more than two respondents, were not included in the report but were brought to the attention of the Lead School Principal and Cluster Manager for their consideration.

Templates to assist with the review process are self-explanatory and included at the end of this article.

Headings in the report were chosen to reflect key messages from feedback in the review i.e. feedback informed the headings used - hence other clusters are likely to need different headings depending on their feedback.

The headings that were used to present ideas for future focus in RTLB Cluster 16 were:

- Effective RTLB work
- Personnel
- Administration
- Finance
- Health and Safety

What was written under these headings for reporting purposes was in the order of how many respondents had given that response i.e. the more respondents who had supported an idea, the closer to the top of the list the idea appeared in the report.

Following the review process and the writing of the report by the two reviewers, the report was shared with the Lead School Principal, Cluster Manager, Lead RTLB/Practice Leaders. At the next full RTLB staff meeting, the report was shared with all of the cluster’s RTLB, and the next steps are presenting the review to the Lead School Board of Trustees and then to all of the schools in the cluster, and ensuring the findings of the review are reflected in the strategic and annual plans.

Finally, the management teams of the two clusters are going to meet to share how they have incorporated the review findings into their future planning, and to discuss the perceived benefits and limitations of the review to inform any future review. This review was a first for both clusters and it is not presented as any more than being one aspect of review carried out by both clusters. Already we have discussed the limited scope of our survey, and it is likely that in a future review we will include feedback from parents, teachers and students.

If any clusters would like to try this process for review, and would like electronic copies of the templates included with this article, please email office@nawton.school.nz. As well as including the templates with this article, RTLB Cluster 16 has included a copy of the final report of its cluster review as an example of what the report can look like, and to enable other clusters to determine the relevance or otherwise of them carrying out a similar review.
Appendix 1

RTLB Cluster 16 Review

Date: ___________________________  Name: ___________________________
(this will be kept confidential, only summarised comments to be shared)  Position within RTLB Cluster 16

Question 1: What should RTLB Cluster 16 **Keep** doing?

Question 2: What should RTLB Cluster 16 **Stop** doing?

Question 3: What should RTLB Cluster 16 **Start** doing?

I agree this is an accurate reflection of the interview.

Signed: ___________________________  Signed: ___________________________
Name: ___________________________  Name: Bruce Walker / Tracy Fraser
Interviewee  Interviewer
Appendix 3

RTLBA Cluster 16 Review Summary Report

RTLBA CLUSTER 16 REVIEW SUMMARY REPORT

22nd August 2014

From 19 to 21 August 2014 the RTLBA Cluster 16 participated in a Formal Self Review process. Summarised feedback has been recorded from interviews with RTLBA Cluster 16 Leadership team, a selection of RTLBA staff and RTLBA Cluster 16 Principals over three days in 2014. All staff and schools were given the opportunity to provide feedback using the same interview template via email.

This review was facilitated by Bruce Walker Lead Principal and Tracy Fraser RTLBA Cluster 20 Manager, Rotorua Lakes High School.

It is recommended that this feedback is considered in conjunction with the Cluster’s ongoing review processes for future planning.

Celebrating Good Practice is feedback gained regarding areas stakeholders saw as effective and wanted to keep and has been recorded in order of priorities as identified by the Cluster feedback under the following headings:

1. Systems
2. Effective Practice
3. Cluster Culture
4. Leadership
5. Finance

Future Focus is feedback gained regarding areas stakeholders saw as future areas for development and has been recorded in order of priorities as identified by the Cluster feedback under the following headings:

1. Effective Practice
2. Systems
3. Leadership
4. Cluster Culture
5. Finance

We would like to thank Cluster 16 for inviting us both to participate in this Self Review process and wish you well in your journey of continuing to provide an effective and responsive RTLBA Service to students, families and schools.

"Kia kotahi te hoe ka tae ki uta"

Bruce Walker
Lead Principal
RTLBA Cluster 20
Rotorua Lakes High School

Tracy Fraser
Cluster Manager
RTLBA Cluster 20
CELEBRATING GOOD PRACTICE:

Celebrating Good Practice is feedback gained regarding areas stakeholders saw as effective and wanted to keep.

Systems

- Appointment of high quality RTLB to suit identified Cluster needs
- Cluster 16 website for referrals, reporting, and communication
- Professional Development delivery meeting identified Cluster 16 needs
- RTLB liaison with schools
- Equity of service delivery across the Cluster
- School-based RTLB across school settings, ie. Primary, Intermediate, Secondary and Kura
- Weekly review and intake meetings
- Regular all-in meetings
- Clear and comprehensive appraisal process

Effective Practice

- Induction and mentoring practices
- Rotation of RTLB participation in weekly review and intake meetings
- Peer supervision development
- Management and tailoring of caseload to allow for individual RTLB needs
- Transitioning of students between Cluster schools
- The matching of RTLB expertise and skills with the needs of students and teachers
- Provision of variety, flexibility and equity of casework allocation
- Provision of one-on-one service for students with high learning needs

Cluster Culture

- Open and supportive management team
- Cluster 16 operates with a High Trust model
- The development of a collaborative culture among Cluster 16 RTLB
- A high expectation of service delivery to all Cluster schools
- An established culture of feedback and support from Board of Trustees
- Obvious culture of care/manaakitanga and tikanga

Leadership

- Delegated leadership structure utilises internal strengths
- Open, transparent and collaborative leadership team
- Leadership team committed to promoting/employing Maori practitioners and fluent speakers of Te Reo Maori
Finance

- Cluster is strategically resourced according to identified needs
- Equitable and transparent distribution of LSF and Year 11-13 Funding

FUTURE FOCUS FEEDBACK:

Future Focus is feedback gained regarding areas stakeholders saw as future areas for development

Effective Practice

- Focus on effective RTLB practice to ensure consistency of service delivery
- Research efficacy of interventions and programmes to best meet student needs
- Analyse Cluster-wide needs to inform Cluster strategic planning
- Encourage innovation to raise student achievement and teacher capacity
- Further develop Te Reo Maori with RTLB
- Inter-Cluster collaboration to share Professional Development and best practice
- Review most appropriate delivery to Kura

Systems

- Use self-review, data and evidence to inform next strategic plan based on identified Cluster need
- Continue to develop the website to enhance analysis, ensure efficacy of service, reporting, communication, administration and finance
- Meet Cluster Principals annually to consult with and inform the Strategic Plan and receive information
- Transparency - review workload allocation process to reflect equity

Leadership

- Review format/purpose of meetings
- Ensure appointments reflect the needs of Cluster 16
- Address performance management issues

Cluster Culture

- Clarify the Cluster 16 name, vision, whakataukī, mission and logo
- Celebrate good practice of RTLB and Cluster 16 success
RTLB CLUSTER 16 REVIEW FEEDBACK SUMMARY : 22 August 2014

Finance

- Ensure clarity and transparency in financial management and budgeting
- Review travel reimbursement guidelines
- Review reimbursements of consumable purchases
AUTHOR PROFILES

Rubina Wheeler

Rubina Wheeler is Principal of Nawton school in Hamilton, is Lead School Principal for RTLB Cluster 16, serving 77 schools and 37 cluster staff.

Ko Tainui tōku waka,
Ko Whatihua tōku tāngata,
Ko Taupiri tōku maunga,
Ko Waikato tōku awa,
Ko Ngati Apakura tōku iwi,
Ko Hinetu tōku hapu,
Ko Kahotea tōku marae,
No Otorohanga ahau,
Kei Kiwikiriroa tōku kainga inaianei,
Ko Jenny Manaia rāua ko Thomas Charman ōku Mātua,
Ko Warren Wheeler tuku tāne,
Ko Rubina Wheeler ahau.
Ko Raymond, Te Winika rāua ko Rickson,
Panehuru aku tama.

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Paul Mitchell enjoys his role as Cluster Manager in RTLB Cluster 16. He values the professional relationship he has with the Lead School Principal and Board of Trustees of Nawton School and sees these relationships as pivotal to maintaining and improving an effective service.

The success highlighted in the cluster review reflect the dedication and expertise of a wonderful team of RTLB.

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Keeping Our Difficult Kids in School: The Impact of the Use of the ‘Boxall Profile’ on the Transition and Integration of Behaviourally - Disordered Students in Primary Schools

Judy Allison, Resource Teacher: Learning and Behaviour, Christchurch
Shirley Craig, Resource Teacher: Learning and Behaviour, Christchurch

Practice Paper

Keywords: attachment, Boxall Profile, Nurture Group practice/social emotional competency

ABSTRACT

This paper discusses the Boxall Profile as an assessment and intervention framework designed to support disadvantaged children in mainstream schools. The Boxall Profile was developed in the 1970s in the United Kingdom by Marjorie Boxall to identify children who had come into school unprepared to meet the demands of classroom life and needed support in a nurture group. The nurture group provided the emotional/social support the children needed to prepare them for mainstream classes. The Boxall Profile shows how the processes of early child development play a central role in a child’s ability to learn and succeed at school. It helps teachers in mainstream school to understand the emotional problems that lie behind difficult behaviour. A case study example demonstrates how the Boxall Profile provides evidence of deficit in social and emotional competence when attachment has been disrupted and a child has experienced trauma, neglect or abuse.

Introduction: What is the Boxall Profile?

The Boxall Profile provides a framework for the structured observation of children in the classroom. It was developed by Boxall, an educational psychologist, and her school colleagues for use by teachers in the Inner London Authority in the 1970s and 1980s to support the work of nurture groups (Bennathan & Boxall, 1996, 1998). Nurture groups are small classes set up to support children entering school who are already exhibiting signs of emotional and behavioural difficulties. The Nurture group provides a structured and predictable environment in which children can begin to trust adults and to learn. Historically, the use of the Boxall Profile has been integral to the success of nurture groups which have operated in the United Kingdom (U.K.) for the last thirty years. Nurture groups in the U.K. enable many children who are at-risk of exclusion or of special educational placement to continue in mainstream school and to make good progress. The Boxall Profile is used as the analytical and diagnostic tool that guides the selection of students for placement in nurture groups.

The purpose of the Boxall Profile was to provide a means of assessing the areas of emotional and behavioural difficulty of severely disadvantaged and deprived children so as to enable teachers to plan focused intervention. The Boxall Profile can be, and should be, completed by whoever knows the child best, e.g., teacher, teacher-aide, social worker, Special Education Needs Coordinator (SENCO).

The Boxall Profile consists of two sections; the Developmental Strands, and the Diagnostic Profile, each consisting of 34 items and a histogram. The teacher rates the student’s behaviour against a set of norms that apply to children with ‘no problems evident’ aged between 3 years 4 months and 8 years (but can be used with older students). The Boxall Profile was normed for reliability and validity by Inner London Education Authority, Research and Statistics Branch.

The profile for the individual student is created from the teacher ratings scores. Once a profile has been completed, the two sections (developmental and diagnostic) need to be looked at together, and attention given to identify areas of strength as well as areas where the student appears to be having difficulty. These areas of strength and difficulty become evident on closer examination of the strands within each of the sections – developmental and diagnostic (see Figures 1-4: The Developmental Strands & Diagnostic Profile). Norms are indicated by the ‘shaded’ areas on the profile.

The developmental strands consist of items which describe different aspects of the developmental process of the pre-school years. The developmental strands are made up of two clusters, each with five sub-clusters:
Cluster One – The organisation of experience (reflects levels of engagement with the world, describing a child who is organised, attentive and interested, and is involved purposely and constructively in events, people and ideas).

Cluster Two – The internalisation of controls (reflects levels of personal development and awareness of others, describing a child who is emotionally secure, makes constructive, adaptive relationships, is able to cooperate with others and has internalised the controls necessary for social functioning).

Children in need of support have low scores on the developmental strands. The outline on the histogram is irregular because the number of items varies from column to column.

The second part of the Boxall Profile is the Diagnostic Profile. The diagnostic profile consists of items describing behaviours that inhibit or interfere with the child's satisfactory involvement in school. They are directly or indirectly the outcome of impaired learning in the earliest years. They may possibly be a result of abuse and/or neglect.

The diagnostic profile is made up of three clusters:

Cluster One – self-limiting features (identifies children who lack the normal ‘thrust for growth’).

Cluster Two – undeveloped behaviour (identifies children who have had too little help in the early years to provide them with the inner resources to relate to others and engage at an age-appropriate level).

Cluster Three – unsupported development (suggests children who have marked negativism towards others, are anti-social, and/or angry. This marked negativism towards others may be a result of a lack of early nurturing or intrusive negative experiences).

Children in need of support have high scores on the diagnostic strands. Again, the outline on the histogram is irregular because the number of items varies from column to column. Although originally designed for those in the 3-8 year age group, the Boxall Profile has been redesigned and extended for use with older children and adolescents.

Who are the children who will benefit from a Boxall Profile?

As Resource Teachers of Learning and Behaviour (RTLB) with 12+ years of experience, we are familiar with the characteristics of some typical learning and behaviour referrals. These children present very early in their school career with characteristics that make up the following typical profile: they do not respond to the teaching offered; they either withdraw or behave aggressively towards teachers and their peers, they make little progress in educational achievement; and they may be stood down and even excluded during their early days at school. They may come from transient families, frequently moving house and changing schools. Many come from families where stressors shown to disrupt the parent-child attachment are experienced. Poverty, single parenthood, marital conflict, mental illness and substance abuse may reduce the parents’ ability to provide a structured, predictable, safe and nurturing environment. These students typically take up a disproportionate amount of teacher time and attention. Their presentation and demeanour challenges even the most experienced and skilful of teachers. Teachers are often bewildered by the behaviour and lack of response to teaching strategies that succeed with other children. By using the information provided by the Boxall Profile, much of this difficult behaviour can be understood and skill deficits can be addressed.

A Case Study: The story of ‘A’.

‘A’ was a 6-year-old male referred to the RTLB for behavioural and emotional difficulties. He had a very short attention span, about 30 seconds, was constantly moving and distracted, didn’t return to class at bell times, was non-compliant to direction from adults, and was not engaging in any academic tasks. He had been excited about the prospect of starting school. ‘A’ also had soiling issues.

He had been in a number of different foster placements from 18 months of age after being removed from the maternal home due to care and protection issues. At pre-school he presented with non-compliance, soiling, swearing, verbal and physical violence, unpredictability, and marginalising the safety of others. His social worker predicted that transition to school was unlikely to be successful. A medical report confirmed no physical reason for the soiling and suggested this was likely to be caused by anxiety. ‘A’ was initially transitioned to school with teacher-aide (TA) support for two hours per day.

At school his teacher, who had 40 years teaching experience, found his behaviour to be a greater challenge than she had ever experienced. The TA was unable to describe a time when there was an absence of unwanted behaviour. ‘A’ said he wanted friends, but lacked the social skills to form friendships, and frequently hurt others. After ‘A’ had been at school for 3 months, his behaviour included threatening to kill other children, self-harming, hurting others, and often inaudible speech. He did not attempt required tasks and would not sit with the other children. The first assessment with the Boxall Profile was completed by
his classroom teacher in collaboration with the RTLB. The completion of the Boxall Profile involved a thirty minute session where the teacher and RTLB worked together through the behavioural statements in the profile, rating ‘A’ against the expected norms for his peers, i.e., the Boxall Profile norms for competently-functioning three to eight year-olds. When completing the profile, the teacher was asked to specifically consider ‘A’ in terms of his usual presentation in school rather than focusing on extreme or one-off events.

For each of the two histograms (Developmental Strands and Diagnostic Profile) to score within the expected average scores, the student is expected to achieve scores in the shaded areas of each histogram (Bennathan & Boxall, 1998).

Figure 1: Histograms Student ‘A’: Profile prior to Classroom Intervention.
Section II

DIAGNOSTIC PROFILE

The scores for the items in Section II are entered in the histogram below in the column indicated by the relevant letter (Q, R etc ...Z). The outline is irregular because the number of items varies from column to column.

The shaded green areas indicate the range of average scores in a sample of competently functioning children in five age groups from 3 years 4 months to 8 years.

Figure 2: Histogram Student ‘A’: Profile prior to Classroom Intervention.
Assessment on Section I, Developmental Strands:

Low scores, below those expected for competently-functioning three to eight year-olds, were recorded for ‘A’ on both clusters of the developmental strands. The only score achieved within the expected range was for ‘connects up experiences’. This score indicated that, despite his behavioural presentation, he was purposeful and self-motivated, capable of coherent and sustained thinking, and of relating events to each other, appropriate for his age (Evans, 2008). On the first cluster of strands of the developmental strands histogram, ‘organisation of experience’, ‘A’ scored a total of 39 out of a possible 72. On the second cluster of strands of the developmental strands histogram, ‘internalisation of controls’, he scored a total of 30 out of a possible 64.

Assessment on Section II, Diagnostic Profile:

Higher scores, above those expected for competently-functioning three to eight year-olds, were recorded for ‘A’ on all three clusters of the diagnostic profile. This meant he was not scoring as well as competently-functioning three to eight year-olds. He scored 14 on self-limiting features; 1.6 or less was the required score. He scored 23 on undeveloped behaviour: two or less was the required score, and he scored 48 on unsupported development; when 4 or less was the required score.

The profile reflected that ‘A’ was a student who had come to school unprepared to meet the demands of classroom life. He was functioning more typically as a developmentally younger child, and was not yet able to meet the Curriculum Key Competencies of Participation, Managing Self, and Relating to Others. The recommendations for addressing the emotional/social competency deficits shown on the profile were researched from the Boxall Profile companion resource - ‘Beyond the Boxall Profile: Strategies and Resources’ (Evans, 2008). This informed the intervention planning.

After completion of the Boxall Profile and analysis of it, in collaboration with the RTLB, an Intervention Plan (Appendix 1) was implemented. The teacher changed aspects of her practice. She gave ‘A’ prior warning when there were any changes to the usual routine; she acknowledged that he had better days when there was more predictability in the day’s programme. She related her success in turning his anger around to her focus on giving him positive assurance, allowing him to sit close to her, providing physical contact, and responding positively to his developmental needs, including allowing him to hug her around the legs. The teacher began to understand the merit in providing ‘A’ with frequent, genuine, consistent, specific descriptive praise, immediately he was compliant to any request.

After ‘A’ had been in school for 6 months, his teacher reported that she felt she had developed a trusting relationship with him. His parent was now confidently approaching the teacher: previously his parent did not come into the school at all. The teacher now allowed the close physical proximity and the nurturing he sought.

The Boxall Profile had provided succinct evidence of his need to be nurtured and supported in a kind and loving but consistently firm and fair manner. This evidence helped the staff of the school to understand that ‘A’ had emotional needs more typical of a much younger child. It gave the staff permission to attend to his needs, particularly those of needing to be nurtured and liked, and to belong.

The information from the first Boxall Profile provided evidence on which to build an understanding of this child’s needs and enabled trusting relationships to develop. A better ‘goodness of fit’ had developed between the student and the school, providing opportunities for him to succeed in the school setting.

SECONd PROFILE

A further Boxall Profile was completed seven months after the first one with positive changes clearly evident. A comparison between the scores recorded on the first and second histograms is evidence of the success of the intervention, informed by assessing ‘A’ with the Boxall Profile.
Section I

DEVELOPMENTAL STRANDS

The scores for the items in Section I are entered in the histogram below in the column indicated by the relevant letter (A, B etc ...J). The outline is irregular because the number of items varies from column to column.

The shaded green areas indicate the range of average scores in a sample of competently functioning children in five age groups from 3 years 4 months to 6 years.

Figure 3: Histogram Student ‘A’: Second Profile After 7 months Classroom Intervention.
Section II

DIAGNOSTIC PROFILE

The scores for the items in Section II are entered in the histogram below in the column indicated by the relevant letter (Q, R etc. ...). The outline is irregular because the number of items varies from column to column.

The shaded green areas indicate the range of average scores in a sample of competently functioning children in five age groups from 3 years 4 months to 8 years.

Figure 4: Histogram Student ‘A’: Second Profile After 7 months Classroom Intervention.
**Post-Assessment on Section I, Developmental Strands:**

‘A’ had higher scores on both clusters recorded on this histogram. His scores were now within the average range of competently-functioning children from three to eight years, in 5/10 of the developmental strands (compared to histogram Profile 1, 0/10). Histogram 2 recorded that he had reached the range of expected scores in three of the five developmental strands in the ‘internalisation of controls’ cluster. ‘A’ now had scores typical of competently-functioning children aged three to eight years, in five of the ten areas of the developmental part of the assessment; ‘participates constructively’, ‘connects up experiences’, ‘shows insightful involvement’, ‘is emotionally secure’, and ‘responds constructively to others’. He also had improved scores in all other areas of assessment recorded on the second developmental strands histogram (Figure 3).

**Post-Assessment on Section II, Diagnostic Profile:**

While 9/10 of his diagnostic profile scores remained outside those of average scores of competently functioning children aged three to eight years, his scores on all of the 10 items of the diagnostic profile had improved towards the expected average scores. In the sub-cluster ‘avoids/rejects attachment’, ‘A’s score was now within the competent range, indicating that a greater ability to trust adults had been developed. He also had a slightly improved score in the category of ‘undeveloped/insecure sense of self’. Assessment data from the Boxall Profile and intervention based on recommendations from ‘Beyond the Boxall Profile’, informed evidence-based intervention which assisted the classroom teacher to effectively address this student’s emotional needs. His ability to comply with the school’s expectations of learning and behaviour, and progress towards achievement on the Key Competencies, was beginning to develop. He was arriving at school ready to learn. The behavioural difficulties that he had presented with when he transitioned to school were much less problematic. He was viewed through a more positive lens, regarded as a student needing support, but able to demonstrate positive participation as a class member.

**DISCUSSION:**

**Why would using the Boxall Profile be useful to educators?**

The Boxall Profile has been developed from observing behaviour in the classroom, i.e. it is based on sound behavioural observation. The structured observational framework enables teachers to understand behaviour that had seemed incomprehensible and to understand the behaviour in terms of impairment and delayed development. The Boxall Profile allows the teacher/school staff/parent to view the child through a different lens. It takes the focus off where the child should be according to chronological age and turns it to where the child is actually, socially and emotionally. “Once teachers understand the early causes of children’s failure and are shown ways in which these can be addressed there is a great change of attitude” (Evans, 2008, p.4). Evans comments that instead of teachers having negative feelings that lower their morale, they become positive. It is this change in understanding that gives the staff permission to attend to the child’s needs rather than the behaviour. The teacher can then effectively address the child’s needs and help them to progress in the school system. The Boxall Profile provides detailed information that enables teachers to plan focused intervention to develop the social and emotional competence of children and to enhance their academic achievement.

However, using a Boxall Profile to help a teacher see a student in a new way is not always enough. The nature of classrooms, the numbers of students, the ratio of adults to students and the focus on curriculum can form barriers that make implementation of Boxall Profile-directed interventions unfeasible and ultimately unsuccessful. The emotional and behavioural difficulties of some children will require a ‘wrap around’ intervention such as the nurture group can provide. In New Zealand there is now an organisation, Te Pito Mata nurture groups NZ, which has been set up to support the establishment of nurture Groups (Appendix 2).

**RESEARCH**

Research that discusses the Boxall Profile has generally been confined to within the nurture group context and in the U.K. (Bennathan & Boxall, 1996, 1998; Cooper, Arnold & Boyd, 2001; Cooper & Tiknaz, 2005). However, there are many studies on the importance of promoting social and emotional competence in behaviourally-disordered students (Denham, 2006; Doyle, 2001; Webster-Stratton & Lindsay, 1999). There is also meta-analyses which review various approaches and instruments that measure social and emotional competence (Edmunds & Stewart-Brown 2004; Scottish Office Education Industry Department, 2000). There is certainly a research niche for testing the use of the Boxall Profile in mainstream contexts in a whole-school setting.

**CONCLUSION**

From our own experiences with using the Boxall Profile in mainstream settings in New Zealand we would conclude that the information the Boxall Profile provides is extremely useful for teacher-understanding of specific students. The detailed analysis of the students’ stage of learning, their strengths and weaknesses, emotions and behaviours, means help can be precisely focused to meet the identified needs.
REFERENCES


AUTHOR PROFILES

Judy Allison

During my teaching career, I have worked with students from aged 4 years to 15 years in NZ, the UK and Trinidad & Tobago. For the last 13 years I have been working as a Resource Teacher of Learning and Behaviour in Christchurch. My special interest has been in students with attachment difficulties and the impact this has on their brain development, and how we can support students with these difficulties within a mainstream school setting. I have recently relocated to Boulder, CO, USA.

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My special interest is in the social and emotional competence of students, specifically attachment disorder and brain development relating to student engagement and learning outcomes in mainstream classrooms.

My interest in the area of attachment stems from the completion of two Mental Health papers while completing my M.Ed. Membership of the Christchurch Nurture Group Network (2007-9) further informed my working knowledge of the Boxall Profile.

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### Intervention Plan

<table>
<thead>
<tr>
<th>Possible Triggers influencing difficult behaviours.</th>
<th>Ecological Factors</th>
<th>Preventative Strategies</th>
<th>Replacement Skills</th>
<th>Socio-emotional &amp; Meta-Cognitive Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety on arrival at school about separating from Mum. Lack of self worth. Anxiety that he can be as his peers in completing required tasks.</td>
<td>Historical separation from Mum for periods when she has been unable to care for him. Unsettled presentation on arrival at school, suggesting possible setting events at home before arrival at school. A wants to make friends, but lacks the social skills needed.</td>
<td>- Teacher /teacher-aide greet him warmly on arrival at school, while maintaining eye contact. Positive reassurance that he is a valued class member. - Positive reassurance that he will be able to complete required tasks. - To promote transition from home, encourage him to bring a photo of Mum and a treasured object to school. - Physical proximity to teacher. Predictable visual timetable. - Tasks should be shortened, gradually extended, using a timer. - Prior warning given of any change. - Teacher attends to target student's Reading &amp; Maths group first. - Predictable teacher expectations of classroom behaviour &amp; procedures stated clearly, fairly &amp; consistently. - Both teacher &amp; teacher-aide using consistent, labelled, descriptive praise, given immediately, each time he begins to comply to a request, e.g., lining up, coming to the mat, speaking pleasantly. - Very frequent praise using eye contact &amp; a smile paired with a 5-five &amp; a sticker, to indicate teacher approval. Instructions visual as well as verbal, broken down into 1-2 steps at a time. - Computer or Choice reward time given on a frequent schedule contingent on compliance. - Social Story book with photos – “Who picks me up from school?” - Inclusion in whole class reward programme. - Planned downtime for play with playdough &amp; family corner.</td>
<td>- A will join in group and whole class activities. - A will stop when an activity is finished. - A will speak politely to his teachers and peers. - A will develop the capacity to work in a group, using turn-taking, sharing, positive engagement with others. - A will engage positively with his peers. - A will join in with whole class and group reading. A will share his reading at home, daily. - A will willingly comply to teacher instructions.</td>
<td>- Positive, nurturing relationship building between Teacher /teacher-aide &amp; target student. - Provide a safe place for his treasures. - Use of Te Reo to greet him. Use of Te Reo throughout the day to give reassurance and affirmation. - Teacher modelling &amp; role play with puppets, of expected polite conventions (nice talking), when speaking with his peers. - Circle time to promote Teacher modelling of social skills &amp; opportunities to rehearse social skills. - Use of “Time to Talk” with teacher-aide and one other student to promote social skills and polite verbal interactions. - Teacher modelling, support and rehearsing for engagement with his peers. - Teacher-aide support to put reading book into his bag each day. - Support for Mother to read with him each evening. - Daily contact with Mother to keep her informed of positive events and to promote a positive home-school relationship.</td>
</tr>
</tbody>
</table>

*Time to Talk Game (Alison Schroeder 2007).*
Appendix 2  
*Te Pito Mata Nurture Groups New Zealand*

CEO: Anna Claridge anna.claridge@hotmail.com

Anna explains:

‘Te Pito Mata are developing a New Zealand model of transition groups and are looking for a school and kindergarten to take part in a pilot. It is planned that the transition group will be a new entrant class with a teacher and two teacher-aides. One of the adults will work with the feeder kindergartens to identify the children with social and emotional needs. They will begin to work with them within the kindergarten setting. The children will then transition straight to the new entrant class where they will be familiar with the adults and the routine. There will be places in the transition group available for children who have not had any pre-school education and are identified (through the Boxall Profile and other criteria) with social and emotional needs. The focus within the new entrant class (transition group), will be to follow the principles of the international evidence-based nurture groups and to get the children ready to learn.’
Position Paper

Keywords: behaviour, education, equity, learning, poverty, socio-economic status

ABSTRACT

Students from low socio-economic backgrounds in New Zealand face many disadvantages when it comes to education, and, despite government initiatives, the disparity between the poor and the well-off continues to grow in this country. New Zealand is among several countries where income inequalities are large and the impact of socio-economic background on learning outcomes is also large (OECD, 2010).

The literature in New Zealand, and overseas, regarding the effects of poverty on education is varied and extensive. This position paper discusses these effects on the learning and behaviour of students and considers what ethnicities are most at-risk as a result. Enablers and barriers to overcoming disadvantages associated with low socio-economic status (SES) background are then reviewed.

INTRODUCTION

According to the Statistics New Zealand report, Vulnerable children and families: Some findings from the New Zealand General Social Survey one in four children under the age of 18 (268,000) live in households defined as medium- or high-risk (Statistics New Zealand, 2012). Households in the high-risk group include those receiving benefit income, sole parent households, large households, households with Māori respondents, and households where the mother had given birth before the age of 21. Six per cent (67,000) of children live in high-risk households with five or more risk factors. The report also concluded that Māori were over-represented in high-risk households. Children who live in high-risk households are more likely to have poor health and nutrition. Low levels of parental education and stress common in the high-risk household can lead to poor parenting skills and a learning environment with limited stimulation (Statistics New Zealand, 2012).

Research has shown that children who are born into poor families may have poorer levels of educational attainment or cognitive function. Low levels of educational attainment may lead to poor employment opportunities and reduced income in adulthood, and poverty is transmitted to the next generation (Save the Children, 2009). However, The Competent Children, Competent Learners longitudinal study in New Zealand found that what teachers and parents do, their interactions and the opportunities they provide, could make a positive difference to children’s achievement at school despite the challenges of poverty (Children’s Commissioner, 2013).

In this position paper I will discuss the effects poverty has on learning and behaviour, who is most at-risk in New Zealand, and the barriers and enablers schools and families face when trying to interrupt the cycle of poverty (Save the Children, 2009). Henderson (2013) used a similar format to discuss Māori potential and the barriers to creating culturally-responsive learning environments in Aotearoa/New Zealand. Her paper inspired me to research the affects of poverty on students’ learning and behaviour and the link between low SES and ethnicity.

What Ethnicities are Most Affected by Socio-economic Disadvantage in New Zealand?

Socio-economic status (SES) is a measure of social and economic factors. Children are assigned SES labels according to their level of household income and their parents’ educational qualifications (Children’s Commissioner, 2013). Ethnicity and SES are often closely linked and in New Zealand, Māori and Pasifika people are more likely to have a lower SES, not because it is a disadvantage to come from these ethnic groups, but because of inequitable distribution of income and education across New Zealand’s population (Children’s Commissioner, 2013). Thrupp (2006) states that schools may actively maintain inequality as they quietly sort people into winners and losers based on their initial cultural characteristics, thereby maintaining the dominance of the middle classes. He goes on to say that low
SES families are not only poor, they are typically in a subordinate social class position within society. It follows, then, that if Māori and Pasifika people are the ethnicities most at-risk of poverty in our society, then teachers, many of whom are from the dominant middle classes, will need to know how to effectively engage and teach these students in their classroom.

According to Alton-Lee (2003), by 2040, current projections predict that the majority of students in New Zealand primary schools will be Māori and Pasifika. This change will occur within the working life of teachers who are currently being trained or inducted into teaching. Furthermore, classrooms are growing increasingly more diverse with many students identifying with many different ethnicities (Alton-Lee, 2003).

What Effect Does Coming From a Low Socio-economic Background Have on Learning and Behaviour?

The educationalist Helen Ladd writes: “... study after study has demonstrated that children from disadvantaged households perform less-well in school on average than those from more advantaged households” (cited in Children’s Commissioner, 2013, p. 2).

According to Perry (2012), low SES families have limited finances and therefore less access to books, educational toys, and educational outings. There is often increased stress in the low socio-economic home, which in turn makes it more difficult to provide a cognitively stimulating environment (Perry, 2012). This is particularly important in single-parent homes, where Nelson et al., (2007) have found that maternal depression is a significant factor contributing to behaviour problems in young children. Letourneau, Dufet-Leger, Levac, Watson and Young-Morris (2011) found in their meta-analysis of ethnic diversity, socio-economic status and child development, that the lower the SES the higher the prevalence of externalising (aggressive) and internalising (depression) behaviour.

Hook, Lawson and Farah (2013) looked at the relationship between socio-economic status and executive function (the ability to actively direct, control and regulate thoughts and behaviour) and found that children from higher socio-economic families showed better executive function. They have also shown that the level of executive function is a predictor of school achievement and is also associated with mental health outcomes. However, the parent-child relationship and its ability to buffer stress can mediate the association between childhood SES and executive function. These authors suggested the need for social policies which fund programmes and interventions that reduce parental stress and increase children’s access to cognitively-stimulating activities and resources.

Furthermore, an examination of a 25-year longitudinal study of over 1,000 New Zealand children found that the educational aspirations of families and positive parent-child interactions played a large role in children from low SES backgrounds succeeding at school (Fergusson, Horwood & Boden, 2008). This supported the Best Evidence Synthesis: The Complexity of Community and Family Influences on Children’s Achievement in New Zealand which reported that regardless of SES background, families with high levels of educational expectations have the most positive effects on their children’s achievement at senior school level (Biddulph, Biddulph & Biddulph, 2003). The evidence indicated that most parents were prepared to help their children as far as their resources permitted.

In New Zealand and overseas, studies have found that lower SES children are less likely to have access to a stimulating curriculum, and more likely to experience less-qualified teachers with lower expectations (Perry, 2012). In some communities this can lead to a kind of socio-economic segregation or “white flight” where higher SES families send their children out of town to schools rather than to the local one. This may lead to a ‘spiral of decline’ where the quality of education schools can provide declines as lower SES areas lose their ‘brightest’ students (Perry, 2012; Thrupp, 2006).

Disturbingly, an Australian study found the quality of pedagogy was lower in schools with large numbers of students from disadvantaged backgrounds (Griffiths, Amosa, Ladwig & Gore, 2007). Furthermore, studies have also found that the school-level SES had a detrimental effect on students as they progressed through school (Holmes-Smith 2006, cited in Buckingham, Wheldall & Beaman-Wheldall, 2013). A study by Cassan and Kingdom (cited in Buckingham et al., 2013) put it succinctly: students from lower SES backgrounds were often found in lower-quality schools.

Jensen (2013) discusses seven differences between middle-class and low-income students showing up at school: health and nutrition; vocabulary; effort, hope and growth mindset; cognition; relationships, and distress. Jensen provides advice about how schools can address these differences, however, he makes it clear that without teachers getting to know their students well, addressing these seven factors will mean little.

Thrupp (2006) questions whether the onus should be on schools to solve the problem. While schools can make a difference there is still a role...
practices. Schools which do this well identified values started to appear in the school culture and their families, then those cultural identities and identity and values of students, their parents and communities started to recognise the cultural

The New Zealand Education Review Office (ERO) (2008) found that when schools with diverse partnerships (Children's Commissioner, 2013). When all parties construct and share common visions and goals it is most effective for partnerships (Children's Commissioner, 2013).

The New Zealand Education Review Office (ERO) (2008) found that when schools with diverse communities started to recognise the cultural identity and values of students, their parents and their families, then those cultural identities and values started to appear in the school culture and practices. Schools which do this well identified

for government to devise long-range strategies to eliminate poverty. However, Thrupp believes schools are not benign because they can help to reproduce social inequalities through the ‘hidden curriculum’ of schooling which is set up for the white middle classes. What can teachers do to encourage enablers and respond to barriers so as to address SES in relation to ethnicity? Studies have shown that positive home/school relationships and parents’ active support of their children’s education can make a difference to achievement at school.

WHAT ARE THE ENABLERS TO SCHOOLS AND PARENTS WORKING TOGETHER?

Building Relationships

For schools to make positive links with families they need to know about their students’ lives outside of school and families’ expectations of what it is that schools can achieve (Groundwater-Smith, 2011). Schools must work from a position of whanaungatanga (making connections) and get to know the iwi and hapu in their areas, talk to kaumatua and then, when ready, experience parts of that world when they can (Macfarlane, 2004). Macfarlane goes on to state that parental involvement is a must if schools wish to lessen academic and behavioural disadvantages, and then lists several ways of interacting with Māori parents. Parents of students experiencing learning and behaviour difficulties also have aspirations for their futures. As educators, it is important that we do not kill these dreams (Macfarlane, 2004, p. 69). Effective engagement of Pasifika parents and communities also rely on relationships which must be fostered among all partners (Gorinski & Fraser, 2006, cited in Ferguson et al., 2008, p. 30).

When family and school form positive relationships, outcomes for students quickly improve (Berryman, cited in Bottrell & Goodwin, 2011). To build a relationship of trust, schools need to actively construct knowledge with the community and be willing to listen and learn, and schools must allow families to be self-determining: to let families decide how they will be involved in schools (Berryman & Bishop, 2011). When all parties construct and share common visions and goals it is most effective for partnerships (Children’s Commissioner, 2013).

The Ministry of Education (MOE) resources are many and varied, however, too often they are not taken up by schools. There needs to be teachers and leaders within the schools with cross-cultural competency to ensure the likes of Ministry of Education resources such as Ka Hikitia and Tātaiako are implemented effectively (Henderson, 2013). Tapaleao (2014) attributed an increase in Māori and Pasifika students achieving NCEA 2 to a number of

It is up to schools to reach out to families who, for many reasons, may find schools inhospitable places. However, schools also need to reach out to those community agencies that support families (Groundwater-Smith, 2011). This is exactly how one school in Christchurch changed the way in which it engaged with its community after the tragedy of the Canterbury earthquakes. Principal Christine Harris (2013) discussed how her approach to engaging whānau changed dramatically after the earthquakes. Her approach changed as she, and the teachers at her school, started to meet the needs of the community, which then built up a considerable amount of trust with whānau. At the same time, they were building ‘strong and respectful’ relationships with support agencies. Harris concluded that if there was a concept that encapsulated the learning she and her team experienced it was the importance of developing relationships above all else. She said relational trust began to evolve in her school’s diverse community as the school reached out to all members of the community in need. Harris also talked of the school meeting the holistic needs of the student first which developed a strong sense of ako (collaborative and reciprocal approach) and awhinatanga (interpersonal care and support).

Harris and her teachers showed that they were committed to their community and cared about its social and emotional stability, and that they were willing to embrace diverse cultures and value cultural exchanges at both the personal and pedagogical levels (Munns, Sawyer & Cole, 2013).

Ministry of Education Resources

Ministry of Education (MOE) resources are many and varied, however, too often they are not taken up by schools. There needs to be teachers and leaders within the schools with cross-cultural competency to ensure the likes of Ministry of Education resources such as Ka Hikitia and Tātaiako are implemented effectively (Henderson, 2013).

Tapaleao (2014) attributed an increase in Māori and Pasifika students achieving NCEA 2 to a number of
MOE initiatives introduced in schools. These included mentoring programmes and homework centres such as the Power Up Pasifika and Starpath projects. The Starpath project, launched by the University of Auckland in 2005, is research-based and aims to help high school students from low-to-mid-socio-economic backgrounds achieve. Both projects use mentors to guide students in their learning and educational aspirations. Mentors and teachers offer their services to students in Power Up stations around Auckland and Wellington free-of-charge. The Power Up programme is uniquely Pacific in that the homework centre invites parents and families to come in and act as support-figures for their children. They are held in places familiar to Pacific families such as churches and community halls and a meal is provided afterwards (Tapaleao, 2014).

**Culturally Responsive and Empathetic Teachers/Educators**

Empathetic teachers create a culture of care in their classrooms and respond to their students’ culture positively. They are aware of and understand Article 2 of the Treaty of Waitangi which allows Māori the right to protect their knowledge, language, values, beliefs and practices (Macfarlane, Glynn, Cavanagh & Bateman, 2007). When teachers in New Zealand get their bi-cultural relationship right then multi-cultural relationships will do likewise.

Empathetic teachers promote self-efficacy in their classrooms and this may lead to higher academic achievement in low SES schools. Teachers need to find the “slightest thing” to help students believe in themselves as learners (Munns et al., 2013; Perry, 2012).

While Durie (2003) does not discount socio-economic factors, he believes the essential difference is that Māori live at the interface between two worlds: te ao Māori (the Māori world) and te ao whānui (the wider global society). Therefore, it is the way these two views impact on each other that is the determinant factor for educational success, however, that does not mean socio-economic factors are unimportant (Durie, 2003).

Culturally-responsive educators will help students appreciate their own place in their community while at the same time opening up the possibilities of a wider world (Munns et al., 2013). It is in the space between these two worlds that culturally-responsive educators, including Resource Teachers: Learning and Behaviour, must walk and help to facilitate the resilience students and teachers will need to navigate a world they don’t necessarily live in every day.

**WHAT ARE THE BARRIERS TO SCHOOLS AND PARENTS WORKING TOGETHER?**

**Lack of Knowledge of Te Ao Māori (The Māori World)**

Educational policy, teaching practice and key performance indicators for staff must match the Māori world view reality (Durie, 2003). Barnes, Hutchings, Taupo & Bright (2012) agree, stating that some teacher-practice demonstrated a low level of awareness of Māori world views and more needed to be done to train and professionally develop teachers and school leaders so as to improve engagement with Māori students (Barnes, et al, 2012).

Research undertaken in Colorado into family-school partnerships (FSP) also highlighted the need for training teachers to be taught ways of engaging and interacting positively with diverse families (Sullivan, Miller, Lines & Hermanutz, 2009).

**Lack of Knowledge of the Pasifika World**

The word Pasifika is used to recognise the multi-ethnic, heterogeneous group of Pasifika peoples which comprises different languages and cultures (Ferguson, et al., 2008). Pasifika peoples is a collective term used to refer to the cultures of Samoa, Cook Islands, Tonga, Niue, Tokelau, Fiji, Solomon Islands, Tuvalu, and other Pasifika or mixed heritages.

Ferguson et al., (2008) state that an understanding of the immigration history of Pasifika peoples to New Zealand is critical for all those working in education because it may enable teachers and educators to better-appreciate the role of schooling in replicating wider society, as well as assist in perceiving students as having complex social identities.

**Deficit-Theorising and Differences in Values**

Some teachers tend to blame students, or their socio-economic background, for learning and behaviour difficulties and so problems are often attributed to students’ weaknesses and not to the teaching method, curriculum or teacher-student relationship. Teachers need to look at their own pedagogy and not dwell on the supposed inadequacies of their students (Munns et al., 2013). Often there are differences in values between the school and parents that can lead to communication breakdown. Gillanders, McKinney and Ritchie (2012) found parents praised teachers who communicated with them positively about their child as well as the things their children needed to work on.

**Lack of Cross-Cultural Skills**

Many teachers do not have adequate knowledge and understanding of te reo me nga tikanga Māori and the history and cultures of Pasifika peoples, and
teacher training institutions need to ensure this is taught (Ferguson et al., 2008; Gillanders, McKinney & Ritchie, 2013). If teachers and school leaders cannot step outside their own culture and engage with an ‘other’ in a cultural partnership, it is highly unlikely that the engagement with whānau and community will occur (Henderson, 2013). In New Zealand it is very easy to not have to step outside of the eurocentric culture and this mono-cultural lens colours everything people do, their values, their professional practice, and the way they live.

CONCLUSION

Coming from a low SES background should not be a precursor for not doing well academically. Those working in education need to be aware of the issues faced by children and families from low SES backgrounds. They need to upskill in cross-cultural competency and learn more about the Māori and Pasifika worlds because these are the ethnicities most-affected by poverty in New Zealand. Upskilling in cross-cultural competency is a must for all educators because the population in our schools is going to continue to become more diverse (Alton-Lee, 2003). Evidence shows teaching that is responsive to student diversity can have very positive impacts on both low and high achievers. Therefore, if teachers can help low SES students achieve academically, then they may go on to higher learning and gain better jobs with better pay, which can then break the poverty cycle. Key to this outcome is building positive relationships with students and their whānau from lower SES homes: it goes hand-in-hand with forming strong and respectful relationships with those agencies working with family and whānau.

REFERENCES:


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**AUTHOR PROFILE**

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Lesley Burkett is an RTLB working for Hei Huruhuru, Cluster 17, and is based at Taumarunui High School. She has been working as an RTLB for one year and is currently in the first year of her Specialist Teaching: Learning and Behaviour post graduate degree.

Prior to becoming an RTLB, Lesley worked for eight years as a primary school teacher in the Taumarunui area in schools assigned decile ratings of 1 through to 3. She describes herself as “tuturu Taumarunui” (staunchly Taumarunui) and has a passion for working with the education community to help young people succeed.

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Using Evidence-Based Practice: A Case Study
Carol Dickinson and Jayne Jackson

Practice Paper

Keywords: behaviour management, collaborative problem-solving model (CPS), evidence-based practice (EBP)

ABSTRACT
This research reports on the application of aspects of a model of evidence-based practice (EBP) which were used to review a behaviour management programme. Special education practitioners employed at the Aotearoa/New Zealand Ministry of Education (MOE) drew from MOE principles and practices, as well as their professional expertise as they reviewed and critiqued the Collaborative Problem Solving Model (CPS). This study reveals two critical aspects when applying an evidence-based practice (EBP) process: understanding of research, and using a structured process. The article discusses a range of benefits and reports on the compatibility of the behaviour management programme with MOE principles and practices.

INTRODUCTION
Students in the Waikato area who exhibit persistent and difficult behavioural challenges are referred to the Hamilton Ministry of Education (MOE) Severe Behaviour Service. These children require intensive support in and out of school from the early intervention and school severe behaviour teams which is delivered within the education and learning setting. The MOE regularly considers evidence of effective programmes from the research literature as a means of strengthening its services in this area. This article reports on how a model of EBP was used as a tool to critique a potential new approach.

EVIDENCE-BASED PRACTICE
EBP was initially developed to inform medical practitioners (Biesta, 2007). Evidence-based medicine refers to “the integration of the best research evidence with clinical expertise and patient values” (Sackett, Rosenberg, Gray, Haynes & Richardson, 1996, p. x). EBP now extends to other contexts such as education, psychology, dentistry and nursing (Trinder & Reynolds, 2000), and has been recommended and adopted in fields such as social work, probation, human resource management and education (Sackett, et al., 1996).

Since its inception in the 19th century, EBP has been a widely debated topic. The driving force behind the promotion of EBP is societal expectations on professionals to provide best current evidence (Department of Health, 1998) and best practice in providing quality services (Morris & Mather, 2008). Current views of EBP identify ‘best’ evidence as deriving from a combination of research, practitioner knowledge and client knowledge. In a New Zealand educational context, action is dictated by EBP that combines these three core elements (Shlonsky & Gibbs 2004). In addition, elements such as the ‘expert’ (medical) model, trial and error, a process for mediating information, and sharing experiences and identifying patterns have also been recognised as contributing to EBP by the Ministry of Education (2012). Figure 1 illustrates this integration in a Venn diagram developed by Bourke, Holden and Curzon (2005). EBP is located at the intersection of research, practitioner knowledge and clients’ knowledge in an attempt to respect all parties’ views as valid and important.

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**Figure 1. The collective elements of Evidence Based Practice**
It is through mediation between research, practitioner and client that shared understanding of perspectives and desired outcomes, and negotiation of the process of collecting evidence is established (Ministry of Education, 2012). In Aotearoa/New Zealand, EBP further includes the cultural connection with Maori through their epistemology and genealogy (Ministry of Education, 2008) and “honoring the Treaty of Waitangi, which is the principle founding document of this land” (Paenga, personal communication, 7 April, 2013). This point of view is congruent with commentators on the Treaty including Durie who stated “The Treaty of Waitangi was seen as a unifying framework which accommodated partnership and power sharing” (2003 p. 101). Additionally, Parata (2009) asserted “The Treaty of Waitangi is a valued relationship management tool, symbolic of our past and central to our future” (cited in Macfarlane, 2009, p. 44).

In conventional use, evidence is defined as “information that is helpful in making the right decision” (Graham, 2003, p. 9). However, in professional settings, evidence needs to be of a sufficient quality to support a claim. Sackett et al., (2000) proposed that the word ‘evidence’ should be limited to information obtained from systematic clinical trials and if these were unattainable, the next - best, external evidence available. However, what counts as evidence is debatable (Maxwell et al., 2004; Morrison, 2001). Bateman (2006) states that the term ‘evidence’ will hold different meanings for different people as diversity in culture, worldview and experiences all influence individuals and specific groups’ interpretation and justification of the term.

In the New Zealand education sector, questions have been raised as to what constitutes as ‘evidence’ and who is involved in creating a clear definition of the concept (Bateman, 2006). Uncertainty surrounding a clear definition of the term ‘evidence’ suggests risks in the application of international EBP in New Zealand, particularly in relation to the appropriateness of assessment and planning for New Zealand’s indigenous (Māori) children and their whanau (Bateman, 2006). Despite these dilemmas, research demonstrates that across a variety of settings and populations a shared expectation exists that the fundamental goal of EBP is to provide ‘best’ current evidence, and ‘best’ current practice in contributing quality services.

**METHODOLOGY**

The current article was drawn from a larger study where aspects of a model of Evidence Based Practice were applied to evaluate a behaviour management tool called Collaborative Problem Solving (Greene, 2006). The Collaborative Problem Solving (CPS) model was originally developed in a clinical setting in the United States by Greene (2008). CPS has been described as an “evidence-based cognitive, behavioural, psychosocial treatment approach including a combination of developmental theory, systems theory and social learning theory” (Greene, 2010, p. 193) and neuroscience research. The aim of the CPS model is for adults and children to identify underdeveloped cognitive skills, and through collaborative problem solving, learn to solve the problems precipitating challenging behaviour, while simultaneously learning new skills.

A team of six special education practitioners employed by the Ministry of Education working in a severe behaviour team engaged in an evidence-based review of the CPS model. Participants attended a series of three focus group sessions where they used their knowledge of MOE principles, effective practices, and their individual professional expertise to evaluate the CPS model.

Reading material on the CPS model was provided to the participants prior to the first focus group session so that they could become familiar with the approach. Material included Greene’s books “Lost at School,” (2009), “The Explosive Child” (2010), and Greene and Ablon’s (2006) book “Treating Explosive Kids: The Collaborative Problem Solving Approach”. Additional resources included Greene’s (2014) website “Lives in the Balance” an introductory powerpoint on CPS developed by the researcher, reviews and articles of the CPS literature (Diller, 2001; Greene, 2010 - Rennicke, 2008), and copies of published research on CPS (Pollastri, Epstein, Heath & Ablon, 2013).

**Session One** ensured that all participants had an understanding of the CPS model. In order for participants to engage in an evidence-based evaluation of CPS, they would first have to have a thorough understanding of the programme. Following discussion of the CPS material, the participants had further questions so they sent an email to Greene for clarification.

**Session Two** began with a review of session one: the groups understanding of CPS. Greene’s reply to the groups email was shared and discussed. Having established an understanding of CPS, the group could then begin to use their practitioner knowledge to critique the programme. The participants provided consensus statements of the model’s strengths and cultural relevance in relation to the Ministry of Education practice guidelines and local context, and created a partial list of concerns with the CPS model.
Session Three began with a review of the CPS model’s previously identified strengths, shortcomings, and cultural appropriateness in the local context from the preceding session. Participants continued to evaluate the CPS model using their practitioner knowledge. Consensus statements were made regarding the model’s potential value to contribute to effective and culturally-responsive education psychology practice in Aotearoa/New Zealand. The group provided a summary and recommendations of the CPS model should aspects of the programme be adopted for Ministry practices.

DATA COLLECTION
Data collected during the focus group discussions consisted of audio recordings, meeting minutes, participant notes, and discussion notes taken by the moderator, artefacts emerging from the discussion and a visual model of the CPS approach. Participants authenticated the data at each meeting. Data was used to explore the varied sources of knowledge, views, experiences and perceptions of the participants.

FINDINGS AND DISCUSSION
This study provided an opportunity for a group of six practitioners working at the Aotearoa/New Zealand Ministry of Education to engage in an evidence-based review within the Waikato context. The evaluative process used in this study was consistent with the Ministry’s practice principle for an EBP approach where professional knowledge is shared. Goss and Leinback (1996) state “the opportunity to be involved in decision making processes, to be valued as experts, and to be given the chance to work collaboratively with researchers can be empowering for many participants” (cited in Sagoe, 2012, p. 5).

During all three focus-group sessions, diverse views were shared by participants. This led to rich discussions regarding queries, concerns, strengths, professional knowledge and experiences, and suggested modifications to the CPS programme. For authentic and sometimes controversial topics to be discussed, the focus-group had to have a supportive environment. In the current study, the focus-group provided an environment that was conducive to engaging in sharing, learning and ultimately contributing to each person’s knowledge base.

A number of themes emerged from the data. The discussion below explores collegiality and the collective voice, culturally-specific experiences and perspectives, communication with Greene, and elements of CPS identified as congruent and incongruent with MOE principles and practices.

Collective Voice and Collegiality
All the participants agreed that a strength of the study was the opportunity to have an individual as well as a collective voice in the decision-making process. Speaker Three commented: “I have enjoyed the opportunity to share my experiences and knowledge of work in this field with my colleagues as it is satisfying knowing that I have made a valuable contribution to Ministry practice”. Speaker Four went on to say: “This experience has brought the team closer together. There is a strong sense of respect and pride in knowing I work with a competent group of professionals with whom I share commonalities as well as differences. This opportunity enabled me to connect on a level I had not experienced with my colleagues prior to the study. Although I know the collective voice is a powerful tool for sharing and exploring new ideas and for gaining greater insight into skills, knowledge and experiences of my colleagues, what I got out of it was also a personal achievement. This reciprocated process provided the foundation for greater understanding and made the process enjoyable”.

From these statements it is clear that these participants found the process of collaborative evaluation useful as a tool for their own professional development as it provided opportunities to learn from, and with, their colleagues. Through validation and support of this knowledge, the participants can be encouraged to further develop effective practices. Speaker One shared: “I’ve learned so much from my colleagues through this process. Through listening to their personal experiences, I learned what our service looks like through different lenses and in many instances this was quite different to mine”.

Culturally-specific Experiences and Perspectives
The varied cultural experiences and perspectives of the participants in the group added an element of strength to this study in that the participants were able to contribute new information to research, and learn from each other in the process. This study was situated at the Ministry of Education Waikato office so was culturally-specific to the participants and to the Waikato district. The participants in the study represented different cultural groups which provided varied ethnic experiences. Cultures represented were New Zealand Māori, South African, British and New Zealand European. Some of the participants shared that they had learned something about their colleagues’ culture that they did not know before they had started the study. For example, Speaker Two shared: “I didn’t realise that the types of questions I asked Māori students limited the amount of information I was able to access”. Speaker Five went
on to say: “I work with my colleagues every day so thought I knew them really well until I took part in this study. I learned so much more about them and their approach to working with children and families. I feel humbled by the experience”. Speaker One concluded: “I realised through this experience that there is more to culture than someone’s language, customs, values and beliefs. I learned that it is the unspoken culture (relationships and sense of belonging within a culturally-diverse group of people) that connects people and this is what I experienced from this study”. The effect of greater understanding or māramatanga “enables a person to develop new beliefs about one’s self plus their ability to effect change within the self and within their relationship with others” (Te Raki Pae Whanau Support and Counselling Centre, p.1, 1999). Durie (2001) states “Relationships are a source of learning, empowerment, and identity for all of us. This is reflected in the concept of whanaungatanga” (p. 200). Whanaungatanga is about, “taking the time to listen and respond, rather than persuade and coerce others to see things in the same way as we do” (Durie, 2001, p. 200).

**Communication with Greene**

A further strength of this study was the direct communication the participants shared with Greene. The strength of interacting with Greene as the originator of CPS ensured that firstly the participants had a thorough understanding of the model. Secondly, there was rigor in applying the EBP model because the participants had interacted sufficiently with the research material. Mishler (2002) states “Measures of reliability and validity are replaced by the ideas of trustworthiness, which is “defensible” (p. 282) and “establishing confidence in the findings” (Lincoln & Guba, 1985, in Golafshani, 2003, p. 602). Speaker Two expressed “By directly contacting Greene, it reduced the erroneous perception we could have taken from his studies and his books”. Speaker Four added “It was great to get some clarity around some of the questions we put to Greene and I appreciated his feedback on some of our views. He didn’t just answer the questions, he responded to what we had to say as well and this enabled me to make a connection with him albeit from a distance”. Speaker One concluded “Once I had made this connection with Greene, I found myself more interested in delving further into the CPS material. My view of the CPS model then changed from one of instant critique to viewing it from a position of greater understanding”.

**Congruent and incongruent aspects**

Discussion concluded that some elements of CPS were congruent with MOE principles and practices, and other aspects were incongruent. Congruent aspects included: theory of behaviour; collaborative and coordinated assessment; delivery of the service; inclusive practice; building relationships; integrity, and diagnosis. Incongruent aspects included: the use of the term ‘collaborative’; criteria for Ministry behaviour service; Greene’s philosophy; theory of behaviour; the referral and informed consent process; assessment practice; cultural relevance; relationship-building and the prescriptive nature of the intervention. Although these findings enabled the participants to make informed decisions about the usefulness of CPS, the focus of this article is on the process of EBP that the participants undertook.

In concluding the evidence-based review, the participants agreed that as the CPS model stands, they would not adopt it as other models of practice better-fit an Aotearoa/New Zealand context. The participants also concluded that any adaptations to the CPS model would alter its effectiveness as an EBP.

**Child / Young Person and Family EBP Practice Contributions**

Based on the EBP Venn diagram (see Figure 1) illustrated in the literature review, this research sits in the overlap between practitioner knowledge and research. However, EBP is considered to be derived from the integration of research, practitioner knowledge, and the life experiences of the family, whanau, child and young person. Although only the two elements of EBP, practitioner knowledge and research, are represented in this study, the findings are grounded in the field. A complete evidence-based evaluation would need to include parents, children and teacher’s perspectives which were beyond the scope of this study.

**CONCLUSION**

Within this framework of practice, literature recognises how different fields of professional expertise develop their own criteria and standards to evaluate ‘quality’ evidence based on a contextual frame of expertise. EBP is determined in different ways by different people and that criteria reflect the unique qualities of each field that uses it. In the current study there were two critical aspects when applying the evidence-based model; understanding the research, and engaging in a structured review. Furthermore, important benefits were evident for the participants and the researcher. The two critical aspects used to apply the evidence-based model in the current study reflect the criteria the participants used to evaluate the CPS model within the Waikato context.
Understanding the research

A critical element to the success of any evidence-based evaluation is developing a deep understanding of the research. In the current study, the process of active engagement with the research materials occurred through providing participants with articles, reviews and readings on the CPS model, direct communication with Greene, and rich discussion of the research evidence. Without a rigorous understanding of the material the process of evidence-based review is compromised.

Structured process

When using practitioner knowledge to critique a programme, a structured process was useful. In the current study, the participants considered which aspects of the CPS were congruent and incongruent with Ministry principles and practices and also with their own professional experience. This process enabled the participants to engage in purposeful discussion and make valid conclusions.

Benefits

The professional benefits of engaging in an EBP review went beyond an evaluation of a specific programme. Participants also reported on the importance of having their voice heard, which led to enhanced professional confidence. The value of developing a ‘safe’ environment is that people can freely and naturally communicate their views and ideas, within a culture of respectful listening. Additionally, participants reported the value of being able to learn from their colleagues. Both of these led to enriched practice.

Although this research looked at two aspects of EBP, research and practitioner knowledge, the authors of this article would recommend a further phase in the application of an EBP: consultation with child/young person, family/whānau as the client’s opinions, experiences, knowledge and values need to be considered.

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**AUTHOR PROFILES**

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I am currently employed by the Ministry of Education in Hamilton. I have worked in the area of Special Education for the past five years and prior to that I was a teacher for 12 years, five of which were in special schools in the UK. I have owned my own business ‘Obehave’ where I was contracted by schools, parents and CYFS to work with children with challenging behaviour. I have completed Post Graduate Diplomas in Education (Guidance Studies, and Psychology) and a Masters in Educational Psychology at Massey University, Albany, Auckland. I am currently completing an internship Educational Psychology. Appreciation is expressed to Ministry of Education Hamilton for providing the setting that made this data collection possible, and to the colleagues who participated.

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The Ling Sound Test: What is its Relevance in the New Zealand Classroom?

Scott McDonnell

Practice Paper

Keywords: aural skills, hearing impairment, Ling Sound Test, speech

ABSTRACT

Daniel Ling created the Ling Sound Test (auditory assessment tool) and it was first published in the book titled Speech and the Hearing-Impaired Child: Theory and Practice (Ling, 1976). The philosophy behind Ling’s sound test is to use a range of speech sounds that largely represents the speech spectrum from 250-8000 Hz using isolated phonemes to target low, middle and high-frequency sounds (Smiley, 2004). Ling’s phoneme sounds are [m], [ah], [oo], [ee], [sh] and [s]. The test is not a test of comprehension: it is used for checking the aural skills of detection, discrimination and identification (Smiley, 2004).

A wide range of people can use this tool including audiologists, speech therapists, teachers of the deaf, classroom teachers and parents. It is a quick and accurate assessment tool that can be exercised with users of cochlear implants, hearing aids or with no amplification at all. It has a variety of applications, and can be used with a wide range of ages or needs. The Ling Sound Test is used worldwide (English speaking) and is used daily by teachers of the deaf based at van Asch Deaf Education Centre (Christchurch) and Kelston Deaf Education Centre (Auckland).

Historical and Conceptual Information

Ling was born in England in 1926. His initial employment was in the Royal Air Force service with radar and communications. This provided a great communication foundation for his profession in education and understanding of audiological devices. Ling had his first professional training as a teacher at St. John’s College, York, through the Education and Audiology of the Deaf course at Manchester University (Ling, 1989). He carried out research in various areas of hearing, speech and educational audiology at Cambridge Institute of Education and later on in the Department of Psychology at Reading University (Ling, 1989). In 1963, he moved to Canada and continued to work in the same field with his wife. Together they founded the McGill University Project for Deaf Children and brought a focus and research application to early sound development in early intervention programmes. They supported the importance of parent guidance and participation which are fundamental to habitation. Serving as the Director of Deaf Education, Ling used his knowledge of technology to build and modify hearing aids, resulting in more profoundly-deaf children being educated in regular school classes (Dornan, 2012).

Over many decades Ling had considerable influence on the development of education and rehabilitation for children with hearing loss (Fitzpatrick, 2010).

The methodology of Ling’s system is based on a developmental model. Ling believed that hearing is a first order event for the development of spoken communication and literacy skills (Dornan, 2012). His model has five hierarchical broad stages which overlap slightly, each with its own order of development. As Locke (2010) points out “it is important that speech sounds are learned in syllables, followed by practice at a phonetic level, and then used in communicative speech in a timely manner to provide meaning” (p.1). The Ling System also focuses on early identification and intervention. His system considers a child must be identified and aided as early as possible (Perigoe & Paterson, 2015) from his research, Ling designed the sound test which was intended to be a simple and easy-to-administer test for detection, however, its simplicity does not counteract its validity (Ling, 1989). The sounds selected represent significant cues in each frequency to help the administrator check a child’s detection and ability to produce the sound. This allows adults to monitor children’s hearing or audio devices daily in an accurate manner through the Ling Sound Test (Easterbrooks & Estes, 2007).

These sounds range from 250 Hz to 8000 Hz: the [m] sound as in me is a low frequency sound (250Hz); the [oo] as in two is a middle frequency sound
Weaving educational threads. Weaving educational practice.

The [ah] sound as in aha is a high frequency sound (1000Hz) and the [ee] sound as in she is a high frequency sound (2000Hz). The [sh] as in fish is a high frequency sound (2000Hz) and finally, the [s] sound as in us is a low intensity sound, but high frequency (4000Hz) (Cole & Flexer, 2010). As can be seen, the vowel sounds have strong, low frequency energy (250-500Hz) and are powerful sounds in the English language. Moreover, “vowels carry 90% of the energy of speech” … “consonants carry only 10% of the energy of speech but 90% of the information needed to perceive the differences among the sounds” (Cole & Flexer, 2010, p. 27). Consequently, both vowels and consonants need to be available to hear speech. The Ling Sound Test is a fast, efficient assessment to ensure there is access to the speech spectrum of intensities and frequencies.

The audiogram shown below illustrates where the sounds fall on the audiogram; most importantly is the red portion in the middle, which is often referred to as the ‘speech banana’ (Evergreen Speech and Hearing Clinic, 2013). This red area is a representation of where the sounds in speech fall in terms of pitch (frequency) and loudness (intensity).

The next step is part of the identification stage. It involves the ability to discriminate between sounds. This is where the child can go from hearing a sound to knowing what they heard. Pointing to a sound card of the sound they have heard can do this. Lastly, by producing the sound they have heard shows that they can detect, discriminate and produce the sound. Usually all these tests are presented at conversational distance of one to two metres (Mustard, 2011). If children cannot access all of the Ling sounds or if their response to sounds changes, then there is a need to check to see if there is a change in their health, functioning of their amplification, or possibly a temporary or permanent deterioration with their hearing. All this is possible with daily checks and close monitoring.

The Ling Sound Test can be used with children of different ages and stages of auditory development. Mustard (2011) of Christchurch’s Southern Cochlear Implant Programme (SCIP) notes that the hierarchy of auditory development begins with children becoming aware of sound. This is the first stage (detection). Next is attaching the meaning to sound and then understanding increasingly complex language (increasing the length of messages and understanding phrases and sentences of increasing grammatical complexity). Accordingly, this is how the Ling Sound Test can be utilised with a range of ages and stages. Detection (I can hear something) with young babies is observing to see if their eyes startle, stop what they are doing, or look in the direction of the sound (Mustard, 2011). Older children can be instructed to put a peg into a peg-board or throw a ball into a container each time they hear a sound (Mustard, 2011).

The practice of the Ling Sound Test aligns with Bronfenbrenner’s Ecological Systems Theory (Bronfenbrenner, 1979) because of its child-centred approach. Bronfenbrenner views the child as an active, developing individual engaging in reciprocal...
relationships with people in his or her environment (Shaffer, 2013). In this sense the child, other people, and the environment all play a role in contributing to the child’s development. Bronfenbrenner’s system has five layers which are the microsystem (such as the family or classroom), the mesosystem (which is two microsystems in interaction), the exosystem (external environments which indirectly influence development, e.g. parental workplace), the macrosystem (the larger socio-cultural context), and the chronosystem (the evolution of the external systems over time) (Shaffer, 2013). Performing the Ling Sound Test supports the child within their microsystem and mesosystem by checking that they have access to the full range of speech sounds. Additionally, accessing the speech sounds will provide language opportunities with the other systems.

Ling was likely to be influenced by Jerome Bruner’s Scaffolding Theory in the early 1960s. Bruner, a cognitive psychologist first introduced the Scaffolding Theory in the late 1950s where he used this term to describe young children’s oral language acquisition (Bakhurst & Shanker, 2001). Bruner suggested that social interaction plays a fundamental role in the development of cognition in general and language in particular. Utilising Ling’s sound test could be one aspect that might support a child’s language development by checking a child’s access to speech sounds. By monitoring their hearing levels, it may support access to meaningful language development, especially in the early years. This also connects to the Ling’s focus with research application to early sound development in early intervention programmes.

Relevance to New Zealand Policies and Practices


The Government’s strategy, Success for All – Every School, Every Child (Ministry of Education, 2010) sets out the government’s vision for a fully-inclusive education system by 2014. This includes students with sensory needs. From 2012, students with a sensory impairment (hearing or vision) who receive support from the Ongoing Resourcing Scheme (ORS)¹ have their teaching component of ORS paid to their sensory school. For the deaf, these are van Asch and Kelston Deaf Education Centres. Teachers of the deaf from these centres are required to check their students on each visit with the Ling Sound Test to ensure they are within their normal range of hearing. The test also checks that any assistive technologies like cochlear implants or hearing aids are functioning optimally.

One of the guiding principles that underpin The New Zealand Curriculum (Ministry of Education, 2007) is inclusion. The document states that “students’ identities, languages, abilities and talents are recognised and affirmed and that their learning needs are addressed” (p. 9). The Ling Sound Test ensures that a student has the ability to hear as optimally as possible and this practice will support part of their learning needs.

Likewise, the Ling Sound Test supports the early childhood curriculum, Te Whāriki (Ministry of Education, 1996). This document points out that “language is a vital part of communication. In early childhood, one major cultural task for children is to develop competence in and understand language” (p. 72). In addition, Marschark (2007), who is a world leader in deaf education and research, points out that “deaf children’s access to language during the critical stages of development (the first two to three years) has a variety of consequences in social, language, and academic areas” (p. 23). Once more, using the Ling Sound Test daily is easy and efficient. It will ensure amplification devices, especially during their early use, are working correctly and if not, something can be done about it so the child is not missing out on fundamental language experiences.

With the implementation of the government strategy, Success for All – Every School, Every Child (Ministry of Education 2010), “the majority of deaf children attend their local mainstream school, some with support from teacher aides and/or peripatetic teachers” (World Association of Sign Language Interpreters, 2013). Therefore, it is imperative that when these students are receiving their education in these settings, they are receiving equitable and quality education. The Ministry of Education document Collaboration for Success: Individual Education Plans (Ministry of Education, 2011) which provides guidance on supporting students with special education needs, notes that teachers need to “draw on a range of effective assessment approaches, using the principles of assessment for learning” (p. 4). Ling’s sound test would be one of the effective assessment tools to be used to ensure their learning needs are being met.

¹ The Ongoing Resourcing Scheme provides support for students with high or very high special educational needs.
The NZ Disability Strategy (Ministry of Health, 2001) sets out a framework for government agencies (including schools) when making policy or providing services that impact on disabled people. Goals 3.2 and 3.4 are particularly relevant to deaf students in New Zealand schools. These goals are:

- support the development of effective communication by providing access to education in New Zealand Sign Language, communication technologies and human aides
- ensure that disabled students, families, teachers and other educators have equitable access to the resources available to meet their needs.

Using the Ling Sound Test ensures that students are able to have equitable access to education by checking that assistive technology, such as cochlear implants, are working optimally and that hearing is not changing over time. If a student’s hearing is decreasing, then the test will pick up on this and next steps can be looked at to support that student, family and education setting.

Implementation of the Ling Sound Test

Since its establishment in 1967, many foundations, specialising practices and schools have modified/adapted the sound test to align with their beliefs or type of practice. However, the basic fundamentals of the test have not changed. It takes time to establish and administer the Ling Sound Test effectively. Time is needed to demonstrate to a child what is required or needed. Also, consideration of the child’s age and stage of development needs to be taken into account. Once this has been set up, a baseline is created to what is expected on a daily occurrence.

According to Cochlear (2013) and Duncan et al., (2010), the Ling Sound Test is implemented in the following way:

1. Demonstrate what the administrator expects of the child being tested. This can be:
   a) Detection: when a sound is heard, a child could raise a hand, clap or drop something into a box.
   b) Discrimination: where a child discriminates two or more sounds as being the same or different.
   c) Identification: where a child points to a picture of the sound or produces the sound they heard.

2. Sit or stand 1 metre (3 feet approximately) from a child while being next to or behind the child. This ensures there are no visual cues for the child.

3. Firstly, say the sounds at a typical conversational level (50-65 dB) 20cm away from the child. Once the child has responded to all the sounds increase to one metre distance. The six sounds need to be random and have varying pauses to ensure that no known pattern occurs, and lessens the chance of prediction by the child for a sound.

4. Increase distances to two and three metres.
   Record correct responses, any incorrect and/or no responses, and make notes that could be useful.

The one metre range is thought to be an average distance for a one-to-one conversation and three metres as a distance for a group setting (Ling, 2002). Over time, tracking the data of the child’s responses will create a baseline. A simple recording sheet to collect the data is sufficient. This baseline will allow the administrator to know if a child’s responses are out of the normal parameters.

The goal of the practice is to check that a child’s entire auditory system is working correctly. It also checks hearing aid amplification or cochlear implants. After a baseline has been established, the Ling Sound Test can then track any changes in the child’s hearing and/or audio-equipment.

To learn how to train, or what support is needed to administer the Ling Sound Test, there is a wealth of website information for parents or teachers to access. Key leading manufacturers of hearing assistive technology such as Cochlear and MED-EL have an abundance of information and resources. Many countries have different training programmes to learn how to implement the Ling Sound Test. Within a New Zealand context, according to audiologist Paul Peryman at van Asch Deaf Education Centre (personal communication, 2013), teachers of the deaf get trained with the test if they have not had experience with it. The training involves working with a mentor and observing and practising with the test. This is to ensure the test is being implemented correctly and results interpreted appropriately.

Strengths and Limitations

The Ling Sound Test is a fast, easily-administered test with high validity (Agung, Purdy & Kitamura, 2005). Very little time is needed (5 minutes on average) to administer the test with instant results that need little analysing or interpretation. It can be used with a range of ages or needs. Once a baseline of assessment has been formed, changes can easily be identified and simple adjustments, such as flat batteries, can be rectified immediately. It can also be fun with a child, whereby teachers can have a role reversal and the child tests the adult (Couglan, RTD, personal communication, 2013).
The Ling Sound Test can also assess other modern technologies like the F.M. listening system. This device is advocated for classroom use by the Ministry of Education (Ministry of Education, 2013) which aids to increase the speech signal (normally the class teacher’s voice) in relation to background noise. This transmission happens on a reserved radio spectrum of 216 to 217 MHz (Burke, 2010). A teacher could utilise the Ling Sound Test to check if the F.M. system is working correctly and optimally. From using the sounds, the teacher could adjust the settings on the microphone unit or its placement to maximise the system’s potential. However, this is providing that the test has been administered firstly without the F.M., and understanding the system does have limitations. A possible limitation of the Ling Sound Test within a New Zealand context could be considering the sh and s sounds are not part of the Māori language; Te Reo. If a child was fluent in Te Reo and did not speak English then it would be difficult to reproduce these sounds. This practice can still be used to check if the child can detect the sounds but discrimination and identification may be void. Other considerations when utilising the Ling Sound Test is if the student has complex needs such as a learning disability, speech and language impairment, or cognitive impairment. These students may have limited cognitive or metacognitive knowledge or skills to participate with the sound test (Evers & Spencer, 2011).

The Ling Sound Test can be used by a variety of people, but this could also become a possible barrier to the validity of the test. Being untrained with the administration of the test, and perhaps different interpretations with information or results, could lead to conflicting results. This in turn may create confusion and possible disappointment. Sourcing correct information and seeking support from people who are trained with the test would increase the success of the implementation of the Ling Sound Test. Another possible limitation of the Ling Sound Test is the limited calibrated method of sound delivery by the administrator. However, a limited study by Tenhaaf and Scollie (2005) focused on creating a calibrated, computer-assisted version of the Ling Sound Test to be at the correct frequencies and intensities. They compared it to an everyday voice and their conclusion was the test still “appears to fall between moderate and good test-retest reliability” (2005, p. 45). Equally, Ling states that “while the pitches of voices may differ, the components of the sounds that permit the identification and comprehension of speech sounds are sufficiently close for the purpose of the basic test” (cited in Estabrooks & Birkenshaw-Fleming, 2003, p.227).

It can be determined, after examining the strengths and limitations of the Ling Sound Test, that the person administering the test should be trained in it; this will maximise the test effectiveness and reliability. According to Kelly-Campbell (Senior lecturer, Audiology, University of Canterbury), audiologists in New Zealand are trained with the Ling Sound Test (personal communication, 2013). They also have immense knowledge around audiometric equipment, diagnosing hearing problems, testing and interpreting results (Audiometry, 2013). However, daily testing is not a realistic or practical situation for an audiologist. Ling designed the test to be a daily, easily-administered test that has validity (Smiley, 2004). Teachers of the deaf, who are also trained with the test, should administer the test. They are more likely to have regular contact with children to test and monitor changes. Teachers of the deaf will also establish a working relationship with a child that will support the ease of the implementation of the test. It has been noted that parents can test their child but caution with validity may well be a concern with correct administration and interpretation of results.

Classroom teachers are another group which can use the Ling Sound Test. With implementation of New Zealand’s Disability Strategy (Ministry of Health, 2001), the policy Success for All – Every School, Every Child (Ministry of Education, 2010) and the movement towards inclusive schools and classrooms, there now appears to be a need for classroom teachers to become trained with the Ling Sound Test. For students with hearing impairment in mainstream classrooms, it is imperative that they have access to adaptations such as visual prompts, curriculum modifications, assistive technology (e.g. FM. system), or specific physical locations to be within an operative hearing range of the teacher. The Ling Sound Test may possibly be part of this intervention response. For this reason, the Ling Sound Test can be administered by the classroom teacher providing that they have had training to administer the test.

ADAPTATIONS

Potential adaptations for accents with the Ling Sound Test could be considered with slight differences between production and spectral content of North American vowels (whom the test was originally devised for) and other English-speaking countries such as New Zealand and Australia (Agung et al., 2005). In 2005, a study was conducted targeting the appropriateness of the Ling sounds with an Australian accent. A brief questionnaire was given to clinicians in New South Wales who regularly used the Ling Sound Test. The questionnaire was utilised to determine how they administered and interpreted
results. Out of the study’s recommendations, the six sounds of [m], [ah], [oo], [ee], [sh] and [s] were endorsed (Agung et al., 2005). According to Christchurch audiologist, Mustard, (personal communication, 2013), there was a trend in New Zealand toward including ‘or’ as people thought that the North American ‘ah’ sounded more like our ‘or’. However, it isn’t currently considered necessary to check this additional sound. Hence, for a New Zealand population, it can be established that the six sounds are still valid sounds even with accent differences. Therefore, no adaptation is needed to Ling’s six sounds.

When considering adaptations for Māori with the Ling Sound Test, it has already been noted that the high frequency sounds used with the test, s and sh, are not in Te Reo. This needs deliberation when implementing the test. If the administrator wanted additional information other than detection, demonstration and teaching would need to be included. Adaptations for Māori as a culture, include discussing Te Pikinga ki Runga as a framework to be utilised (Macfarlane, 2009). This framework was created on the human-rights principles within the Treaty of Waitangi. This framework has three treaty principles: partnership, protection and participation. When considering these principles, communication, partnership, and being included are vital for Māori. Providing opportunities to learn how to administer the Ling Sound Test, including the family with on-going assessment whilst establishing a strong relationship, or making joint decisions should all be respected. Another possibility might be to find a Māori audiologist or a similarly-trained person to run the test.

There are considerations when using the Ling Sound Test with additional or special needs. Christchurch’s audiologist Mustard uses the Ling Sound Test with special needs (personal communication, 2013): she states that if someone’s speech is so inadequate that the tester doesn’t think they could tell what sound the child is saying, they only use it as a detection task. Picture representations could be used but it may take longer and also involves another cognitive task. Generally, special needs children do a wait-listen-respond (stimulus-response) task. This would allow the tester to know that a child can hear the sound and respond accordingly. Similarly, some children with an autism spectrum disorder who find it difficult to respond to spoken language and have minimal spoken language, can still respond to the structure of the Ling task in the above manner. This is very useful because it still shows the audiologist that a person is able to hear across the frequencies for speech even if they can’t use spoken language for communication.

CONCLUSION

In conclusion, through this critical analysis of the Ling Sound Test, it can be seen that the sound test has huge benefits to people who utilise it correctly and for whom it is being directed to. The Ling Sound Test is an accurate and quick assessment tool that can be exercised with people who are hearing-impaired, users of cochlear implants or hearing aids. It has a variety of applications which can be used for a wide range of ages, groups or needs. There are minimal limitations with its use other than what has been discussed. Perhaps this is why, since its establishment in 1967, it is still currently a popular and effective assessment tool.

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Personal Communications


AUTHOR PROFILE

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Scott McDonnell is currently employed by van Asch Deaf Education Centre in Christchurch. He is teaching in the high school base with Y9/10 students. He has also taught in a variety of mainstream primary schools with a wide range of age groups from NE to Y7. He completed a Postgraduate Diploma in Specialist Teaching (endorsed in Deaf and Hearing Impairment) last year and is studying for his Masters in Specialist Teaching in 2015.

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Teacher Aides: The Fine Art of Balance
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Position Paper

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ABSTRACT

Teacher aides have been part of New Zealand classrooms for many decades. Initially, they were employed to perform clerical and supervisory duties that required no professional training, such as typing, duplicating and playground supervision. Over the years, however, their role has changed significantly. They now play a pivotal role as a ‘people resource’ in supporting the New Zealand Ministry of Education’s philosophy of inclusion.

The most effective teacher aides are working in positive inclusive contexts in which they are respected and valued, however, their role is full of inconsistencies and will likely to remain so until there are some systemic changes made in government policy. This paper argues that teacher aides can be a powerful resource; however their use must be carefully considered so that the fine art of balancing the social and academic needs of a student with special educational needs is sensitively planned, and where possible, underpinned by the professed needs of that student and their family. Teacher capability needs to be built so there is increased ownership for all students.

“... nowhere is education an uncomplicated ‘good’; it produces both justice and injustice, equity and inequity and the issue is to understand why, when and how” (Walker, 2003, cited in Rutherford, 2009, p.90).

History/Background

Traditionally, students who were deemed to have significant special educational needs (SEN) were schooled separately in special units attached to schools, or in special schools, which were staffed with specialist teachers. Special Education practices played an important role in legitimising the identification, separation and schooling of students with SEN, which, within the context of that time, was an honest attempt to provide safe and suitable schooling. Prior to this, children with SEN were not entitled to go to school.

In the late 1980s, the New Zealand education system underwent a series of political reforms which saw the devolution of government control to local self-managing schools. The 1989 Education Act granted students with disabilities the right to attend local state schools if parents so chose. Boards of Trustees were given the responsibility to identify students who had SEN and to develop and implement teaching and learning approaches that addressed the needs of these students. The provision of teacher aide support became, and has continued to be the most common way in which schools responded to these students’ needs (Rutherford, 2009). Teacher aides were seen as the solution to inclusion (Ward, 2011).

In 1996, the policy Special Education 2000 was introduced. This policy framed the provision of education for students with SEN, promising a world-class inclusive education system (Ministry of Education, 1996). This is defined as “the provision of extra assistance, adapted programmes or learning environments, specialised equipment, or materials to support children and young people with accessing the curriculum in a range of settings” (Ministry of Education 2010, npg). However, while the policy aimed to create a world-class inclusive education system, its very definition demonstrates a greater focus on resourcing than aspects of human rights so critical to inclusive education (Rutherford, 2011). Despite this apparent contradiction, support for inclusion can also be found in other New Zealand policies such as the New Zealand Disability Strategy, which aims for an inclusive society, and the initiative Success for All – Every School, Every Child (Ministry of Education, 2010) which identifies a four-year plan of action to achieve a fully-inclusive education system.

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1 All New Zealand schools have a Board of Trustees elected by the parent community responsible for the governance of the school.
These policies and initiatives reflect New Zealand’s move towards more inclusive schools and inclusive societies, a movement which is becoming an international phenomenon (Brown, 1997). The major impetus for inclusive education has been issues of human rights and the proposition that inclusive education is more effective (Lindsay, 2007). Rutherford (2011) points out that the move to inclusion can also be seen as egalitarian, with the promise of redistributed resources according to need. However, Rutherford also notes that equality stated in written laws is often unrealised in practice. “Rights on paper, such as those of New Zealand’s 1989 Education Act, are simply words. And they remain so in the absence of relationships with people to understand and care enough about a person or situation to recognise and enact rights in the face of injustice – to move from the noun, a right, to the verb, do right by” (p.113).

The move to inclusion was not synonymous with appropriate resourcing however. In particular, the lack of qualified professionals with whom to support the inclusion of students with SEN have meant that teacher aides are often utilised, within a cultural context that largely devalued people with disabilities (Giangreco, Edelman, Broer and Doyle, 2001). Over the years, the ready availability and the cost-effectiveness of teacher aides resulted in this resource being maintained and expanded in the absence of a supportive theoretical base or efficacy data (Giangreco, Edelman, Broer and Doyle, 2001). As Giangreco et al., (2001) argue “There is no compelling data suggesting that teacher aides are an effective way to educate students with disabilities in inclusive classrooms” (p.59). In other words, the evidence-base for this resource is not established. Why then, do we still have teacher aides? Giangreco et al., (2001), suggest that history, economic factors, changing demographics, parent advocacy, administrative convenience, ease, expediency and momentum are all contributing factors to the continuation of the use of teacher aides to facilitate inclusion of students with SEN.

Although there is a limited research-base related to the role and efficacy of teacher aides, there is sound theory underpinning the practice of using teacher aides in providing support for students with SEN in the mainstream. Psychologist Vygotsky proposed that children learn through interactions with their surrounding culture. This theory, known as the socio-cultural perspective, states that the cognitive development of children and adolescents is enhanced when they work in their Zone of Proximal Development (ZPD). To reach the ZPD, children need the help of adults or more-competent individuals to support or scaffold them as they are learning new things. According to Vygotsky’s theory, children can do more with the help and guidance of an adult or other more-experienced person than they can do by themselves. The Zone of Proximal Development defines skills and abilities that are in the process of developing. The ZPD is the range of tasks that one cannot yet perform independently, but can accomplish with the help of a more-competent individual such as a teacher aide. Since children are always learning new things, the ZPD changes as new skills are acquired. Scaffolding is the structure or guidance of a more-experienced person. There are many different ways of scaffolding, including breaking the task down into smaller steps, providing motivation, and providing feedback about progress - tasks very often provided by a teacher aide. Scaffolding is seen to instil the skills necessary for independent problem solving in the future.

The Role of the Teacher Aide

Since the 1989 Education Act and the movement towards inclusion, the role of the teacher aide has shifted from largely clerical work and resource preparation to actively supporting the mainstreaming of children with SEN (Clegg, 1987). At the time when inclusive education was emerging as a preferred model of education, there was advice that serious consideration be given to the allocation of teacher aides for it was considered that without them, inclusive education could not succeed (Clegg, 1987). This belief lingers. In a US study, Giangreco and Suter (2010) found that 80 percent of schools they surveyed reported that teacher aides were viewed as the way rather than a way to support students with SEN, that teachers were minimally or superficially involved with students, and that students with SEN were dependent on teacher aides. They also reported that current literature shows that teacher aides’ responsibilities have become increasingly instructional, operating with high levels of autonomy, making instructional decisions, providing the bulk of instruction to students and doing so without adequate professional direction (Giangreco & Suter, 2010).

So what are the qualifications, conditions and pay of the personnel we assign to students who present the most challenging learning and behavioural challenges?

In New Zealand there is no national policy regarding schools appropriate use of teacher aides (Rutherford, 2009). However, there are guidelines published by the Ministry of Education (2012) for parents and caregivers. These guidelines advise that it is the teacher who remains responsible for the child’s
learning and behaviour. The child’s teacher will work with the child, and the child should not be supported only by the teacher aide. There is an expectation that the class teacher will meet with the child’s teacher aide weekly, and give the teacher aide feedback. Also, the Ministry of Education advise that the aim should be to build the child’s independence by using natural supports such as including the child in a group and facilitating work with other students so that the child does not feel singled out for attention (Ministry of Education, 2012).

Although there is no national database of teacher aide employment details, a search on the New Zealand Ministry of Education website indicates that teacher aides are paid according to their skill levels, qualifications and responsibility. A teacher aide beginning at Grade A (where there is a need for close supervision and no need to exercise judgement) starts on $15.26c per hour rising to the maximum of $15.58 per hour (NZEI Collective Agreement for Special Education Assistants). A Grade B rate (advanced knowledge, skills and experience) ranges from $15.58c per hour to $19.29c per hour. To attain Grade C ($19.29c to $23.95c per hour) a teacher aide must have management, administrative and/or financial responsibilities.

What are the Issues?

The permanency of teacher aide positions is often tenuous. In her 2009 New Zealand study, Rutherford reported that none of the teacher aides in her research had permanent jobs because their employment depended on the availability of funding. Although teachers are paid centrally through government, unless you are a teacher aide for one of the very small number of students with Ongoing Resourcing Scheme (ORS) funding, you are likely paid from the school Special Education Grant (SEG), a grant provided to every school in New Zealand to support students with SEN. From this grant, many necessities are vying for priority, including teaching resources for children with SEN such as books, videos, computer software, packaged teaching programmes and so on. As well as teacher aides, the school may also need to employ specialist teachers, psychologists, behaviour consultants, or provide professional development for teachers. The fact that teacher aides are employed periodically, year by year dependent on funding, and are paid hourly for the actual hours they work (they are not paid for breaks, school holidays and not of right for meetings – including the Individual Education Plan (IEP) meetings that the Ministry of Education expect, or resource preparation out-of-school hours) means that this is seldom a living wage. A living wage assumes 40 hours of work (King & Waldegrave, 2014) however, most TAs work much less than this (Careers NZ website).

Research conducted by the New Zealand Educational Institute2 (NZEI) entitled Valuing the Work of Support Staff in Schools (2010) confirmed that, despite the skills required for the job, teacher aides in New Zealand are poorly remunerated, with little job security and uncertain hours. Why has there not been a challenge to these unsatisfactory conditions? Is it because teacher aides are to some extent a marginalised workforce, who do not strongly challenge the status quo? It is widely understood that funding from a school’s SEG grant means a teacher aide may not be a priority. The Ministry of Education (1998) handbook Managing the Special Education Grant, advises that the SEG grant “allows schools to break away from the teacher aide mindset” (p.3). Recruitment does not seem to be an issue either as schools do not appear to have any trouble finding teacher aides: many, from my experience, are intelligent and caring women with school-aged children who take the position as it can fit around the needs of their family. The New Zealand Education Institute has recognised the worth of teacher aides and have strongly advocated for them, without much success (NZEI, 2010). It may be, therefore, that the current state of pay and conditions of teacher aides is simply a reflection of the governments determination to keep the cost of special education down.

Training and Qualifications

Also of concern is the fact that there is no pre-requisite for training or qualifications to become a teacher aide. All that is necessary is a police check, to ensure they have not been convicted of serious criminal offences (Rutherford, 2011). As Giangreco et al., (2001) ponder, is it acceptable that the least-qualified are responsible for students with the most complex challenges to learning? Is it fair to expect those being paid what would arguably be described as a ‘basic wage’ to adapt and instruct? It is unsurprising that there were some ongoing questions in the Evaluation of the Introductory Professional Development Programme for Teacher Aides (Ministry of Education, 2004), about the sustainability of expertise in special education professional development if the teacher aide workforce is dependent on periodic contracts. None of this is new. Concerns about the qualifications and pay of teacher aides have been long standing. In 1987, Clegg concluded her thesis by recommending that the Department of Education (now the Ministry of Education) accept responsibility for the pre- and

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2 The NZEI is the primary teacher union
Roles and Responsibilities

The lack of clarification of teacher/teacher-aide roles and responsibilities within schools is an issue well-documented in research. Rutherford (2009) found that few teacher aides had job descriptions, and most spoke of carrying out responsibilities that required them to do work they had no training for. This is despite research which shows that “clearly defined roles and responsibilities are important factors in perceived ability to make a difference” (Stevenson, 2012, p.60). Devecchi and Rouse (2010) also found that effective collaboration between teacher aides and teachers was beneficial for both adults and the children they support. Collaboration enabled consideration of multiple viewpoints, the collective solving of problems, and finding ways to make a difference. Instead of this, as Giangreco and Suter (2010) reported, most plans for the teacher aide role are transmitted orally with time being a limiting feature. With ill-defined roles and responsibilities it is unsurprising that teacher aides may work in a variety of ways, exceeding their prime role of the connector or the scaffolder Vygotsky proposed.

Rutherford (2009) observed inconsistencies in the way teacher aides are used in schools. The most effective were working in positive inclusive contexts in which they were respected and valued. These teacher aides used a range of strategies to simplify and interpret instructions, academic tasks and resource materials, scaffolded by a qualified teacher. In my experience as an RTLB, this optimal situation is rare. Rutherford recognised there were also teacher aides who adapted on the run, working as untrained teachers using judgements and resourcefulness to support student’s learning, which she saw was a pressure valve for teachers - more common in my experience. But she also recognised that many teacher aides assumed full responsibility for their student with minimal input from teachers – the aide, she noted, was in effect, the teacher, or in many cases, a babysitter. It appears as Stevenson (2012) found, that a lack of teacher experience and knowledge about SEN leads to a lack of supervision. Teacher aides then make curricular decisions on their own.

Ward (2011) reports that many teachers are relieved that students with SEN come with an attached teacher aide. Whether willingly or reluctantly, many classroom teachers relinquish primary responsibility for the education of students with disabilities to teacher aides. Kearney (2009) found that because of teacher’s lack of knowledge and understanding, the handing over of disabled students to teacher aides was accepted practice. This, she found, was particularly true in secondary schools, where teacher aides generally spent more time working with students one-on-one. It is evident that the Ministry of Education guidelines do not match the reality of practice in the NZ classroom. As Giangreco et al., (2001) point out, while “much of the literature trumpets the politically correct rhetoric that teacher aides work under the direction and supervision of qualified professionals, that research is showing descriptions of teacher aides left to fend for themselves without appropriate training, supports and supervision” (p.58).

Enabler or Barrier to Inclusion?

According to Stevens (2010), a major reason for placing students with disabilities in regular classes is to enable them to reap the social and academic benefits afforded their peers without disabilities. However, the presence of teacher aides can work against the very inclusion they are employed to facilitate. Balancing the academic and social needs of
a student is an ongoing challenge and teacher aides can inadvertently intensify the isolation of students with disabilities even though the regular classroom is considered to be an ideal setting in which to increase peer interactions and relationships. Stevenson (2012), found for example, that 90 percent of a student's interaction with peers occurred when the teacher aide was not in the vicinity of the student. Giangreco and Suter (2010) concur, saying that teacher aide proximity impedes the number of interactions between students and classmates, creating stigmatization and dependence. Getting students with SEN accepted by other students and teachers is a particular challenge for both primary and secondary teacher aides. Secondary students in particular, on account of their developmental stage, are more likely to react negatively towards being singled out and secondary school teacher aides are more concerned about being disrespected by students (Stevenson 2012).

Literature shows that additional to the isolating influence of teacher aides on peer relationships, teacher aides may also interfere with teacher's engagement with students with SEN, encourage dependence on teacher aide support, limit students development of autonomy and control and affect their sense of identity (Causton-Theoharis, 2009; Giangreco & Suter, 2010; Rutherford, 2011; Stevens, 2010). They can also promote insular relationships between the teacher aide and the student, a feeling of being stigmatized, loss of gender identity and provocation of behaviour problems. Additionally, proximity can also mean that there is less responsibility taken by classroom teachers, and limitations on receiving competent instruction (Causton-Theoharis, 2009; Giangreco & Suter, 2010; Rutherford, 2011; Stevens, 2010).

All students deserve to receive their primary instruction from highly qualified general and special educators. Yet, if you are a student with SEN, the likelihood is that you receive a substantial part of your education indirectly, from a teacher aide who is inadequately prepared, trained and supervised (Giangreco & Suter, 2010). The question persists…

do we undervalue them or have low expectations for them? And, as Giangreco et al., (2001) wonder; “Are the outcomes comparable to those who have consistent interactions with qualified professionals? Is there a lingering, unspoken perception that students with disabilities do not need or deserve the services of qualified professional educators?” (p.59).

The use of Teacher Aides to Facilitate Inclusion

Considered use of teacher aides, however, can indeed provide the connecting or linking role: interpreter, mediator and advocate to support academic and social inclusion. Rutherford (2011) asks us to consider the perspective that teacher aides, knowing and caring about students in terms of their humanity and competence, can also result in recognition and addressing of injustices experienced by students. Therefore, they “may act as agents of social justice in ‘doing right by’ the students they serve, partially alleviating the inequities generated by an increasingly meritocratic education system” (p. 96).

So, under what circumstances are teacher aides best used to facilitate inclusion? How can teacher aides work so that they are balancing the student’s need for support with their development of autonomy and control, both socially and academically? There is a general consensus through the literature regarding this. A common observation throughout literature is that teacher aides should not have the primary instructional responsibility (Causton-Theoharis, Giangreco, Doyle & Vadasy, 2007; Giangreco, Doyle, Halvorsen & Broer, 2004; Giangreco, Edelman, Luiselli & MacFarland, 1997; Stevens, 2010). There is a need to build teacher capacity so that there is increased teacher ownership for all children. Whanaungatanga, or building relationships, and manaakitanga, the ethic of caring are integral in culturally-inclusive classrooms. Therefore, the relationship a classroom teacher has with a child is paramount. (Macfarlane, Macfarlane, Savage & Glynn, 2012). Building teacher capacity, particularly in differentiation, increases the amount and quality of instructional time for students with SEN. The classroom teacher’s role needs to be explicitly clarified as the instructional leader, and learning activities need to be physically, programmatically and interactionally planned with all class members, including those with SEN. Differentiation of the curriculum should be a focus in pre-service training and in-service professional development, a skill, by my experience, particularly lacking in secondary settings.

Although the recommendation that the classroom teacher should have primary instructional responsibility for all children makes sense, it is much more difficult to achieve. Research has shown that there is a long-held belief by some teachers, school principals and parents that children with SEN need teacher aides (Kearney, 2009). Principals, teachers and parents need to be educated in inclusive principles. This is particularly difficult in the current educational climate in New Zealand with the focus on academic achievement, meeting National Standards in the primary sector, and National Certificate of Educational Achievement targets in the secondary sector. There is a very real tension between the Ministry of Education’s stated principles of inclusion and their current direction of measuring and judging schools by their academic outcomes. Perhaps change, in the first instance, needs to come...
at this level.

Another key part of the solution is an upskilled teacher aide workforce. As Lindsay (2007) points out, the size of the teacher aide workforce now presents a major opportunity for development. If we are to persist in our use of teacher aides to support inclusion, it seems desirable that they should be explicitly and extensively trained in evidence-based learning approaches and in behaviour management (Causton-Theoharis et al., 2007; Giangreco et al., 1997). Despite the assertion by Giangreco et al., (2001) that there is no compelling data suggesting that teacher aides are an effective way to educate students with disabilities in inclusive classrooms, there is research data to show that teacher aides can make a difference if they are trained in evidence-based approaches. Lindsay (2007) found that a programme aimed to teach teacher aides how to facilitate interactions between students with SEN and their peers was successful in doubling facilitative behaviour, and that student interaction, which increased 25 fold, was maintained. Stevens (2010) found that training and feedback given to a teacher aide for a peer support programme indicated more frequent and longer social interactions between those with SEN and those without. Causton-Theoharis et al., (2007) found that teacher aides trained in a research-based reading approach accelerated the progress of children including those with SEN.

However, building and retaining this ‘specialist’ teacher aide arm of the teaching workforce would require the Ministry of Education to revisit the pay and conditions of teacher aides. Teachers and teacher aides would also need to have clear roles and responsibilities, and opportunities to collaborate with monitoring and feedback. Training teacher aides would require a large financial commitment from the Ministry of Education, and ongoing collaboration between teacher aides and teachers requires a time commitment that may be unlikely to happen in the short term.

**Moving Forward**

What, then, can we do at the moment to ensure the best use of teacher aides? A start could be that the Special Educational Needs Co-ordinator (SENCo) of the school actively looks to provide professional development opportunities in evidence-based practice specific to the role of that particular teacher aide. Teacher aide involvement in *TIPS for Autism* (a Ministry-funded course supporting a collaborative team to provide an educational plan for individual students with autism) is one example of this.

One other suggestion from the *Evaluation of the Introductory Professional Development Programme for Teacher Aides* (Ministry of Education, 2004) is that teacher aides be involved in curriculum-related professional development within the school, which would incur a minimal cost and ensure the teacher aide had knowledge relevant to the specific school they were working in.

Teachers can also be encouraged to use peer support strategies. This promotes an understanding of similarities rather than difference. Segregation within the classroom and by withdrawal from class, of children who are Maori may be particularly culturally-inappropriate, and a barrier to the principle of Kotahitanga – unity and bonding. (Macfarlane, Macfarlane, Savage & Glynn, 2012). Strategies such as cooperative group teaching, cooperative learning, peer tutoring and collaborative teaching are evidence-based, and need to be employed so that all students have the opportunity to be together in natural situations (Causton-Theoharis, 2009; Giangreco et al., 2004; Giangreco & Suter, 2010; Stevens, 2010; Ward, 2011). Resource Teachers of Learning and Behaviour (RTLB) can facilitate and support this. It would follow then, that teacher aides would be hired for the classroom rather than an individual student (Giangreco, Edelman, Luiselli & MacFarland, 1997; Ward, 2011).

The current evidence-base for the effective use of teacher aides in inclusive classrooms in New Zealand could also be added to by gathering information from the RTLB service. Teacher aides are often used for targeted interventions by RTLBs through their access to Learning Support Funding (LSF), and the effect of this is evaluated in post-data analysis. Collection of this post-data could provide further evidence of the efficacy of teacher aides within targeted programmes. Analysing this post-data may shed light on ‘what works best’ when using teacher aides in New Zealand classrooms.

Finally, an important component of teacher aide employment should be in involving students with SEN in making decisions about their own support. We need to recognise the importance of listening to students and to hear the stories of their experiences as we reflect on, review and question our attitudes. Students who are happy at school and who enjoy positive social relationships do better academically. We need to focus foremost on supporting student needs, then to clarify and align the roles of teacher/teacher aide (Causton-Theoharis, 2009; Giangreco et al., 2004; Giangreco & Suter, 2010; Stevens, 2010; Ward, 2011). Wherever practicable, we need always to be aiming at fading support to promote independence (Causton-Theoharis, 2009). This is the intention of scaffolding as Vygotsky envisaged, and is
consistent with the Maori principle of Rangatiratanga, the need for self-determination (Macfarlane, Macfarlane, Savage & Glynn, 2012).

The current use of teacher aides is inconsistent, and will likely to remain so until there are some systemic changes made in government policy. In particular, payment to teacher aides needs to be centrally funded so that their employment is not periodic and contestable. It would also help if they were specifically trained, that they were paid accordingly and that there were clear roles and responsibilities in their job description. These changes could facilitate a better evidence-based approach to these children’s education.

Ultimately, how a teacher aide is used will be dependent on the individual situation, the child, significant others such as the child’s family, teacher, and the wider unique context of their learning environment. Aspirationally, we want the best for our students, both socially and academically. Teacher aides can be a powerful resource, however their use must be carefully considered so that the fine art of balancing the social and academic needs of a student with SEN is sensitively planned, and where possible, underpinned by the professed need of that student.

“Ko te ahurei o te tamaiti arahia o tatou mahi” Let the uniqueness of the child guide our work.

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AUTHOR PROFILE

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Miriam Ferguson is a training RTLB in Cluster 18, and this literature review was written as part of the Learning and Behaviour paper requirement. She was a teacher for many years in NZ Primary Schools before teaching in a SEN Department in a Secondary School in Bromley, London. This ignited an interest in Special Education. Returning to New Zealand she became a Supplementary Learning Support Teacher while completing a DipSpEd followed by a Masters of Education degree at Waikato University.

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Many readers will know that national standards have been introduced into Aotearoa/New Zealand primary and intermediate schools, and that this move has been highly controversial. To this end, Openshaw and Walshaw’s book is a timely and welcome publication, providing a comprehensive and scholarly account of debates relating to literacy and numeracy standards in post-World War 2 New Zealand society until 2010. The authors analyse public and political concerns about the perceived need to raise achievement standards in the above two ‘basic subjects’ as rapidly as possible. They also explore proposals aimed at enhancing pupils’ literacy and numeracy proficiency, and examine “crises in benchmark standards” (p.8) involving pupils, teachers, principals, politicians, and policy makers.

In their introductory chapter, the authors argue persuasively that moves to improve the literacy and numeracy skills of the New Zealand youth population for more than two generations have been motivated by at least two concerns. First, they have been linked automatically to intelligent citizenship, to the individual attainment of a ‘good life’, and to improving the quality of people’s working lives. Second—as was to become more evident from the 1970s—a direct, uncritical, relationship was forged in the minds of parents, politicians, and various interest groups between a drive for higher literacy and numeracy for youth and the enhancement of New Zealand’s economic and fiscal standing internationally. Openshaw and Walshaw maintain there is a paucity of academic research into the factors that have underpinned the high level of interest in these domains over the period 1945 to 2010. What is evident, they assert, is an abundance of “bad news stories” (p.10) about decreasing literacy and numeracy standards, and a lack of academic and other attention to the reality that the word “standards” has been utilised differently over the past 65 years. They identify three eras in which criticisms of falling standards in primary schools were to the fore: in the late 1950s, the late 1970s, and from the 1990s. The latter culminated in the passage of the Education (National Standards) Amendment Act of 2008, a statute that introduced to primary and intermediate schools, tests for reading, writing, and mathematics. This legislation is significant, the authors assert, because it points to an overtly unapologetic political perspective on a perceived schooling dilemma, one that has also fiscal, social, and cultural elements.

One of many strengths to this book is the authors’ ability to examine comprehensively “the intellectual history of [New Zealand] primary and secondary school reform” (p.13). They place debates over literacy and numeracy standards into this broader context, because these reveal not only the existence of certain priorities—reflected often in schooling policies—but also perceived crises, deficiencies, and pedagogical dilemmas. They emphasise, tellingly, that “notions of literacy and numeracy are formed at the intersection of competing claims to truth” (p.14), and suggest that educators be (more) willing to interrogate what we/they mean whenever “standards” are invoked and what their implications are or might be.

Openshaw and Walshaw devote a chapter to discussing significant 1940s’ New Zealand schooling reforms in particular, as the first of their three era-specific case studies. Here they analyse literacy and numeracy teaching—specifically, formal whole-class reading contrasted with phonics teaching—and the persistent emphasis on “fundamental drill” (p.33), speed, and accuracy in primary school arithmetic. The authors examine issues as diverse as curricular contestation between liberal/progressive and conservative commentators (over what counts as worthwhile school knowledge), differing opinions about the ‘proper’ purposes of formal schooling, and the emergence of mass secondary schooling and its curricular implications. This analysis leads smoothly
into a thorough examination of 1950s’ concerns over allegedly declining standards in the basic or ‘tool’ subjects, which forms the substance of the authors’ second case study. There is evidence of secondary school authorities blaming primary school teachers for poor, declining performance in ‘the basics’ and of growing criticism of “the modern education revolution” (p.41) in the primary school curriculum.

Throughout the 1960s and 1970s much debate over primary school literacy and reading centred on perceived or anticipated consequences of the ‘progressive education’ policies and practices that were introduced to schools more overtly from the 1940s. The outcome was that the new mathematics taught from 1960 was seen by conservative mathematics educators, parents, and politicians sometimes as antithetical to the development of much-needed, ‘relevant’, fundamental arithmetical skills. Several attempts to justify “new maths” in terms of New Zealand being able to compete better internationally in an allegedly rapidly–developing technological age fell largely on deaf ears. At the core of this continuing controversy lay persistent disagreement over the very aims of schooling as reflected in a progressivist or modern perspective compared with a more formal, instrumentalist, approach to both learning and teaching.

Antagonism between progressive and more traditional educational spokespersons did not diminish in either frequency or intensity during the 1970s, mainly on account of increasing anxiety about New Zealand’s worsening fiscal situation, rising youth unemployment, and a lower standard of living. Taken together, these negative indicators of prosperity served simply to deepen the rift between commentators, reflected in more vociferous criticisms from academics of any national assessment initiative that might be introduced, a firmer stance against phonics-based approach to reading, and more public criticism by teachers’ professional associations of perceived teacher-bashing rhetoric and behaviour from the Muldoon National Government, with the notable exception of its Minister of Education, Les Gandar. Furthermore, the release of a substantial Department of Education report in 1978, that concluded basic subject standards had not declined and that factors beyond the control of schools and teachers had impacted adversely on schooling, failed to satisfy critics that all was well with the New Zealand state schooling system. From the late 1970s there was more lobbying from some interest groups for greater teacher and institutional accountability for ‘sub standard’ pupil performance in the 3Rs.

Notwithstanding, international comparisons that revealed New Zealand performed favourably on literacy and numeracy measures from the late 1990s, and Labour Government initiatives (2000-2006) designed expressly to enhance skill in these domains, business and financial sector spokespersons in particular continued to lament low standards. Conservative spokespersons declared that the answer to New Zealand’s alleged literacy and numeracy ‘problem’ lay with the prompt introduction of a national standards regime. The onset of the global financial crisis circa 2007 added weight to this cause.

In an elegantly written concluding chapter the significance of the authors adopting an historical approach to their subject matter is explained by using historical scholarship as a lever with which to examine a contemporary problem in education, that of literacy and numeracy standards. They note the absence of any universal agreement about what types of knowledge and skills pupils should gain—indeed, about the kind of society New Zealand ought to become—and the presence of several competing interest groups that tried to capture the public mind with their concerns and solutions. The “political, social, and intellectual tug of war to control the meaning of literacy and numeracy” (p.166) apparent for more than half a century has done little or nothing to alleviate public perceptions of deteriorating standards, the authors declare. Until the core roles of New Zealand primary schools are revisited Openshaw and Walshaf fear that a testing regime, accompanied by greater teacher surveillance, the promotion of league tables, more school accountability instruments, and conflicts between governments and teachers’ associations will dominate the New Zealand educational landscape.

This aesthetically pleasing and highly–readable publication fully deserves a wide audience. It should be required reading for conservative and liberal politicians, policymakers, educational administrators, and parents of primary school children.

**REVIEWER PROFILE**

Dr Gregory Lee is Professor of History of Education and Education Policy in the School of Educational Studies and Leadership, College of Education, at The University of Canterbury, Christchurch, New Zealand. Gregory was head of this school from 2009 until mid 2011. He has published extensively in his specialist field of educational history, and is the author of several books and large-scale academic monographs. Gregory’s more recent publications include comprehensive models of post-primary schooling; the secondary education in Aotearoa/
New Zealand and internationally; knowledge and subject contestation within a national curriculum; national standards and testing regimes; the academic and practical intersections between philosophy and history of education; and managerialist orientations within universities. He is on the editorial board of several education journals, was joint editor of the *New Zealand Journal of Educational Studies* from 2000 until 2005, and *Teachers and Curriculum*. He has written, edited, and co-authored some 350 articles in his 33-year academic career.

**BIBLIOGRAPHIC DATA**

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