A Comparison Study of Quick60 and Reading Recovery Instruction

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Abstract

New Zealand has a national system of early reading intervention called Reading Recovery. This intervention is available to children after a year at school if they are seriously underachieving in reading. There has, however, been concern that the intervention has not achieved its aim of bringing underachieving readers up to class average. Results of international literacy surveys consistently indicate a wide gap between the best and poorest readers. Some critics have argued that a key reason for the gap is a lack of focus on the explicit teaching of phonologically-based skills in Reading Recovery and that other interventions could be more effective. One intervention that has been suggested is Quick60, a New Zealand developed literacy intervention for underachieving children that is taught in small groups and emphasises the teaching of phonologically-based skills. One aim of the present study was to assess the efficacy of Quick60 relative to Reading Recovery. A second aim was to consider whether Quick60 could be of equal efficacy but more cost-effective than Reading Recovery which is taught on an individual basis and is whole language in approach. The comparison study of Quick60 and Reading Recovery took place in two schools and involved 30 children. Children were assessed on a number of language and literacy measures before and after 13 weeks of instruction. The results of the study indicated that both the Quick60 and Reading Recovery children made gains but no more than did the control group.

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Chapter 1

Introduction

To actively participate and engage in the world, the ability to read is paramount. Individually and socially the absence of reading skills affects every aspect of a person's life. Becoming literate is arguably the most important goal of schooling (Tunmer & Prochnow, 2009). Early success at school is largely dependent on success in reading. The problems associated with having limited reading skills have been well documented. Children who experience difficulties in literacy learning early in their school career are at risk of negative academic and social consequences in later life (D'Agostino & Harmey, 2016; Zimmerman, Rodriguez, Rewey & Heidemann, 2008). Students who are unable to achieve strong reading skills by middle school are likely to experience negative repercussions (Shanahan & Barr, 1995) such as long-term poor academic achievement (Chapman, Greaney & Prochnow, 2015; Cunningham & Stanovich, 1997; Sparks, Patton & Murdoch, 2014), poor self-esteem (Department for Education and Skills, 2006) and behavioural problems (Church, 2003; Mash & Wolfe, 2002; Reynolds, Wheldall & Madelaine, 2010).

The Overall Literacy Situation in New Zealand

New Zealand has an increasing record of underachievement in reading (Tunmer, Chapman, Greaney, Prochnow & Arrow, 2013). International survey results demonstrate about 20% of New Zealanders are not equipped with this important life skill (Tunmer, Chapman & Prochnow, 2004). The literacy performance of New Zealand young adults in 2006 fell substantially compared to their same age counterparts in 1996 (Chapman, Greaney & Prochnow, 2015). New Zealand's performance on international literacy surveys such as the Progress in International Reading Literacy Study (PIRLS) has steadily dropped from 1st in 1970 to 23rd in 2011 (Greaney, 2011; PIRLS, 2011). As the drop continues, the gap between the

best and poorest readers also widens. Two recently released reports, PIRLS (2011) and the Ministry of Education's (MoE) annual monitoring report of Reading Recovery (RR) data in New Zealand (Ministry of Education, 2014) provide evidence that 15-20 percent of children are not meeting National standards and require additional one to one assistance in reading. The decline in reading scores and the widening achievement gap, which is an international phenomenon, could have several explanations such as the introduction of structural school reforms in the 1980s, changes in economic conditions resulting in increasing levels of poverty or an increase in children from second language backgrounds (Smith & Elley, 1996) but a further possible explanation could be the way in which reading is taught in New Zealand schools.

Reading Recovery

How best to teach a child to read has long been the subject of on-going debate and investigation in the literacy world. New Zealand traditionally uses a book experience approach, sometimes called a whole language approach to reading instruction and reading intervention (Chapman, 2016). The New Zealand Ministry of Education's (MoE) Reading Recovery (RR) intervention is regarded by some commentators as whole language in approach (Tunmer et al., 2013). It is taught on an individual basis, and in 2014, 73% of six-year-olds attended schools where RR was offered (Ministry of Education, 2014). Critics of RR argue that national and international research suggests this approach to early literacy teaching and intervention does not meet the needs of those most at risk of reading failure (Chapman, 2016; Tunmer et al., 2013). If RR was meeting the needs of most children then there would not be a large number of children who under-achieve at later age levels but in 2006, the Education and Science Committee of Parliament concluded that evidence from national and international assessments and studies supported the proposition that New Zealand had a

disproportionate number of students who under-achieved (New Zealand House of Representatives, 2008). The MoE's *Briefing to the Incoming Minister* (2011) recognized the gap between our high performing and low performing students remains one of the widest in the Organization of Economic Cooperation and Development (OECD) and disparities in education appear early and persist throughout learning.

Rationale for the Present Study

A key motivation for the current study was to compare the relative effectiveness of two different research approaches to reading intervention: Quick60 and Reading Recovery. Quick60 is an instructional approach for struggling readers that has a phonological emphasis and is taught in small groups of different age levels. The Quick60 programme was published in 2009 by Dr. Sandra Iversen. It aims for students to become competent readers and spellers in 60 or fewer 'Quick' 40 minute lessons. Reading Recovery is also designed to help struggling readers at the 6-year-old level and is an individualized approach. Both RR and Q60 programmes include similar elements, however, the essential difference between Quick60 and Reading Recovery is that Quick60 has more emphasis on phonological skills than does Reading Recovery and it provides small group instruction whereas Reading Recovery provides individual instruction. Previous studies have shown that the addition of phonological instruction to Reading Recovery instruction increases the effectiveness of Reading Recovery (Iversen & Tunmer, 1993; Iversen, Tunmer & Chapman, 2005; Tunmer, Chapman & Prochnow, 2006) but it has not yet been determined whether a phonological emphasis as in Quick60 can match or better the impact of Reading Recovery The current study aims to add to the small body of research available about the effectiveness of the Q60 Programme.

Advocates of RR argue it is neither a whole language nor a traditional phonics-based intervention; rather it is based on Clay's (2001) theory which incorporates a wider view of

early literacy learning that integrates direct phonics and phonemic awareness instruction and links that knowledge to monitor word recognition decisions while reading (Doyle, 2103; McGee, Kim, Nelson, & Fried, 2015; Schwartz, 2015; Schwartz & Gallant, 2011). It is the emphasis on monitoring of reading behaviours during the reading of connected text that helps many struggling readers to construct the elaborate set of orthographic knowledge (Schwartz, 2015). Critics of RR argue that the explicit teaching of phonological skills is currently not a part of the Reading Recovery Programme, though it does teach these skills implicitly (Tunmer et al., 2013). According to Clay (2005a; 2005b) RR teachers must be able to design a superbly sequenced series of lessons determined by particular children's competencies and make highly skilled decisions at each moment during the lesson. RR's book experience approach may not be sufficient for some children who require more explicit instruction (Tunmer et al., 2013). Reading Recovery is an expensive programme for schools to offer (McDowall, Boyd, Hodgen, & van Vliet, 2005) in that it requires individual tutoring. If schools could gain similar or better results using small group instruction it would be more cost effective and would enable schools to offer tuition to more children at the same or less cost. There are no current studies this researcher is aware of that compare these two intervention programmes.

A possible reason for this is a lack of information about the relative effectiveness of different programmes currently available. This possibility was raised in a survey carried out by the New Zealand Council for Educational Research (NZCER). They surveyed and collected data from a stratified random sample of approximately 20 percent (400 schools) of the 2,045 full primary, composite and contributing schools in New Zealand (McDowall, Boyd, Hodgen, & van Vliet, 2005). Two main reasons highlighted for why schools did not offer Reading Recovery were the cost of intervention and the desire to offer alternative interventions that reached more students. Identified alternatives included programmes which explicitly teach

phonics skills e.g. Jolly Phonics. In the survey findings, a few principals commented Reading Recovery did not have enough emphasis on phonics and that the entry criteria for Reading Recovery excluded students that the principals considered in need of support. Of particular interest to the present study was that the report indicated the need for evidence of the effectiveness of alternative interventions to RR so that school use of operational grant funding on literacy interventions is informed and efficient. Schools will be able to factor in the data from the present study when making such decisions in the future.

Purpose

The purpose of this study, therefore, was to compare the efficacy of two different reading interventions, specifically, to analyse systematically the efficacy of Quick60, a New Zealand developed literacy programme that targets the teaching of phonologically-based skills in small group instruction, compared with the internationally known and MoE funded Reading Recovery programme.

Research Questions

1. To determine whether Quick60 is an effective remedial literacy programme for at-risk New Zealand students.

2. To find out if the Quick 60 and Reading Recovery interventions are comparable in their impact on language, reading and spelling.

Hypothesis

The null hypotheses were that there would be no difference between Quick60 and Reading Recovery in their effectiveness.

Organisation of Remaining Chapters

This thesis consists of five chapters. The second chapter reviews the literature and includes a discussion of the strengths and limitations of the two prominent theories (the

Multiple Cue Theory and the Simple View of Reading) and approaches (whole language and code emphasis/phonics) that underpin teaching reading. Next, the record of the New Zealand national literacy strategy was examined alongside a discussion of how emergent literacy skills, *Literate culture capital* and *Matthew effects* (defined later in this document) contribute to the present reading situation. The chapter concludes with a presentation of the strengths and limitations of the Reading Recovery progamme, as well as a discussion of evidenced based best practices in reading instruction, particularly in relation to the Quick60 reading programme. Chapter Three presents the methodology and research design used in the study. Chapter Four presents the Results. In relation to research question one, the chapter compares pretest assessments with assessment results at posttest to determine the effects of the Q60 intervention. In relation to research question two, the chapter compares Q60 and RR pretest and posttest assessments on the four assessment tools used. Chapter Four presents a discussion of the main findings. Finally, Chapter Five considers the findings of the study in relations to the literature presented in Chapter Two and practical implications. Limitations of the study and suggestions for further research are also included in this chapter.

Chapter 2

Literature Review

Identifying the most effective way of teaching reading to young children has been the subject of debate for many decades. An extensive amount of national and international research suggests that the gap between the best and poorest readers continues to widen. Advocates of the phonics approach argue that students with the greatest needs in literacy have deficiencies and weaknesses in phonological processing skills (Chapman, 2016; Ryder, Tunmer & Greaney, 2008; Tunmer et al., 2013). Some researchers argue that the New Zealand whole language based approach to teaching reading is causing the failure of the national literacy strategy (Tunmer et al., 2013; Tunmer, Greaney & Prochnow, 2015) They argue that the MoE funded RR programme does not counter and in fact exacerbates the problem of low literacy which in turn contributes to the widening gap between best and poor readers. Whilst there are identified strengths and limitations to both approaches to teaching reading, evidence suggests the best approach to teaching reading is one with a strong emphasis on explicit phonics.

Theory

The theory underpinning early reading teaching practice directly impacts students' early reading experiences, preferred reading strategies and ultimately, reading success (Tunmer & Chapman, 2002). The Multiple Cue and the Simple View are two theories that currently influence the approaches that government agencies and teachers employ to teach reading. The relevance of these two theories for each student needs to be established in their early school life as it is at this stage of their scholastic career that they form their individual strategies to decode print; consequently research demonstrates that the theory employed will impact either positively or negatively on the students future literary success (National

Institute for Literacy, 2009; Torgesen, 1998).

The Multiple Cue theory.

The Multiple Cue Theory is based on the premise of Goodman's (1967) psycholinguistic guessing game. Supporters of the Multiple Cue Theory assert that fluent readers use multiple cue sources of information including activating prior knowledge, using sentence context and syntax cues, cues from any accompanying illustrations and visual/grapho-phonic cues from the words (Clay, 2005a, 2005b; Hood, 2000; Ministry of Education, 2003, 2009; Smith, 1979; Smith & Elley, 1997). The Multiple Cue theory is the foundation of the book experience or whole language approach to teaching reading which can be found in the following paragraphs.

Over the years, the Multiple Cue theory has been presented using similar diagrammatic representations (Smith, 1979), interactive models (Smith & Elley, 1997) and a cyclic model (Hood, 2000). It also has been known by different names such as the Searchlights Model (Stuart, Stainthorp, & Snowling, 2008). Despite variation in presentation of the models and names, the fundamental feature of the theory is that all cues are not of equal importance. Greaney, (2011) highlights that many publications used by whole language theorists depicting the Multiple Cue Theory emphasise that context based cues are of greatest importance (Clay, 1985, Hood, 2000, Ministry of Education, 2010, Smith & Elley, 1997).

A close examination of the models reveals that some proponents of the Multiple Cue Theory place prime importance on context meaning cues. For example, when instructing for word identification, Clay (2005b) recommends in the first attempt to call features of print to the child's attention, prompt for sentence structure, and then prompt for message. Clay (2005a) further warns that unwarranted attention to the details of letters can block a child's ability to use their language knowledge and meaning of the text, as part of the information base for decision making. Clay (1985) places left to right sounding out of chunks or letter

clusters, and single letters as last resort in a list of seven cues that reader use when reading. Clay promotes the view that word-based cues are of least importance. This view is shared by Frank Smith (1979) who suggests the first alternative and preference is to skip over the puzzling word, the second alternative is to guess what the unknown word might be, and the final and least preferred alternative is to sound the word out.

The ultimate goal of reading, it is often argued, is not to read isolated words, but to understand what has been read. Nation and Angell (2006) highlight aspects of reading skill that cannot be readily accommodated by the Searchlights model. In brief, the Searchlights model states four strategies or "searchlights" are involved in reading text. The Searchlights framework recognizes the complexities of the reading process and presents a range of strategies needed to be acquired to develop reading skills. However, Nation and Angell (2006) argue that the Searchlight model reinforces a seriously misguided opinion that phonic decoding and knowledge of printed word are optional Searchlights. Nation and Angell (2006) continue to assert that both phonic knowledge and orthographic knowledge are fundamental, no amount of grammatical knowledge or sensitivity to context can compensate for inadequate word-level skills.

MoE documents on reading instruction have strong similarities to the ideas underpinning Multiple Cue theory (Ministry of Education, 2003, 2009, 2010). However, some researchers suggest the Multiple Cue theory is flawed because it is based on the assumption that skilled readers use minimal word-level information when reading unfamiliar words (Greaney, 2011; Tunmer et al., 2013; Tunmer & Greaney, 2010). Critics of the Multiple Cue theory are supported by Stanovich (1986) who asserts one of the major distinguishing characteristics of struggling readers is their tendency to rely heavily on sentence context cues to compensate for their deficient alphabetic coding skills.

Multiple Cue proponents contend that learning to read evolves naturally and spontaneously out of exposure to environmental print (Clay, 1985; Hood, 2000; Ministry of Education, 2010; Smith & Elley, 1997).

In contrast to this view, some researchers like Nicholson (1999) assert that given the world is awash in print, we would not expect that so few children learn to read before going to school, and for those that do, they will typically have received encouragement and support in literacy related activities in their home before entering school (Nicholson, 1999). Additionally, if New Zealand children do learn to read themselves (Smith & Elley, 1995) with limited amount of direct instruction, we would not expect to find that 15-20% of 6-year-olds in New Zealand still require 1:1 intervention after having been immersed in a print-rich environment for an entire year (Tunmer, Greaney & Prochnow, 2015).

These researchers argue that international reviews of the research demonstrate that other countries have abandoned the searchlights model of reading (National Reading Panel, 2000, Rose, 2006; Rowe & National Inquiry into the Teaching of Literacy, 2005; Tunmer et al., 2013; Tunmer, Greaney & Prochnow, 2015). For example, in the United Kingdom, the Simple View of Reading model was favored over the Searchlights model and provided the conceptual framework underlying the wide range of recommendations included in the Rose (2006) report. This report drew attention to some of the problems inherent in the model and argues that the Searchlights model does not best reflect how a beginner reader progresses to become a skilled reader. The Rose report (2006) has also has been adopted as the theoretical basis of the revised national curricular advice to all schools in England regarding the teaching of decoding and comprehension skills (Department of Education, 2010).

Greaney (2001), found that text-based prompts (multiple cue/whole language approach) were more likely to be selected over prompts that encourage word-based

strategies by New Zealand teachers. Tunmer and Chapman (2002) identify a mismatch between teacher cueing strategies and student reading strategies. In a replication of an earlier study by Liberman and Liberman (1992), Tunmer and Chapman (2002) collected data on beginning readers' reported strategies for identifying unknown words in text. The majority of children (52.1%) in the Tunmer and Chapman (2002) study (as was also found in the original Liberman and Liberman study, 1992) reported using word-based strategies (sound it out, think of the sounds, say the letters, do the sounds of it) rather than text based strategies (guess what the word is, read on, have a look at the picture). Additionally, Year 1 beginning readers who reported using word-based strategies strongly outperformed the children who reported using text based strategies on all reading and reading-related measures taken in the middle of year 3. Furthermore, the children using word-based strategies were six times less likely to enter RR in year 2 compared to children who adopted text-based strategies in Year 1 (6% versus 37%), and Pakeha European children were three times more likely to report using word-based strategies in Year 1 than Maori/Pasifika children (62% versus 21%). Liberman and Liberman (1992) and Tunmer and Chapman (2002) concluded that the constructivist, Multiple Cues approach to teaching in the classroom was not reflected in the actual word identification strategies that the children used.

In summary, research suggests that reading achievement depends on the ability to recognize the words of text accurately and quickly, and for progress to occur the beginning reader must acquire the ability to translate letters and letter patterns into phonological forms (Ehri, 2005; Snow & Juel, 2005; Tunmer & Nicholson, 2011). Pressley (2006) asserts the scientific evidence is overwhelming that letter-sound cues are more important in recognizing words than either semantic or syntactic cues and argues that teaching children to decode by giving primacy to semantic and syntactical-contextual cues over graphemic-phonemic cues is

the equivalent to teaching them to read the way weak readers read.

Simple View of reading theory.

The Simple View of Reading theory is a formula based on the widely accepted view that reading has two basic components: word recognition (decoding) and comprehension. The Simple View formula has been supported and validated by a number of scientific research studies (Nation & Angell, 2006; Stuart, Stainthorp & Snowling, 2008; Tunmer & Chapman, 2012; Tunmer & Greaney, 2010). The formula can help educators in assessing reading weaknesses and providing appropriate instruction. Gough and Tunmer (1986) present The Simple View in a basic formula: Decoding (D) x Language Comprehension (LC) = Reading Comprehension (RC). The Simple View formula and supporting studies show that a student's reading comprehension (RC) score can be predicted if decoding (D) skills and language comprehension (LC) abilities are known. Gough and Tunmer (1986) propose the Simple View of Reading as a way to clarify the role of decoding in reading.

Yet the Simple View is also a model that some researchers disavow mainly because of its implication that reading instruction should focus on just two things, decoding and language comprehension (Hoffman, 2009; Pressley et al., 2009). The critics of the simple view of reading argue that it reduces reading to a simplistic dichotomy that over emphasises drill and skill, ignores the sociocultural context of learning to read, favours one powerful language group over another, and that although the simple view accounts for much of the variance in reading comprehension, policy makers have applied the theory to the classroom in simplistic ways, forcing teachers to teach decoding and language skills in isolation without considering children's different cultural backgrounds and knowledge.

In summary, the Simple View of Reading is a well-known theory that helps demonstrate reading comprehension abilities are dependent on both decoding skills (word

recognition) and linguistic (or listening) comprehension. It provides clear explanation about the components of effective reading instruction and guidelines for assessment of students with reading difficulties which can be taught and assessed separately. Research both supports and critiques the usefulness of this approach. It is provided here to better understand the interventions that are compared in the present research.

Approaches to Literacy Instruction

Whole language approach.

Whole language is an educational philosophy informed by multiple research fields. Researchers in this area often cite Noam Chomsky's language acquisition device (Collins, 2008) and Goodman's (1967) "psycholinguistic guessing game" as parts of the theory, that children are biologically programmed to learn to read as naturally as they learn to talk. In the simplest terms, the whole language approach can be defined as a method of teaching children to read by recognizing words as whole pieces of language. Language should not be broken down into letters or combination of letters and decoded, instead they function in relation to each other in context. This approach is driven by the *constructivist theory*: teachers emphasize that students create (construct) their own knowledge from what they encounter, learning is a cognitive experience unique to each learner's own perspectives and prior knowledge, which forms the framework for new knowledge. The constructivist philosophy of teaching reading is grounded in Piaget's cognitive-developmental theory which asserts students are seen as active learners who create their own meaning and construct their knowledge through being immersed in a print rich environment (Wadsworth, 1979).

Smith and Elley, two leading proponents of the constructivist approach to teaching reading in New Zealand, claimed that "children learn to read themselves; direct teaching plays only a minor role" (1995, p.87) and that learning to read is like learning to speak, where both

abilities are thought to develop "naturally" (p. 81). The predominant constructivist whole language approach to reading instruction is reflected in Ministry of Education publications e.g. *Effective Literacy Practice in Years 1-4* (Ministry of Education, 2003), *The New Zealand Curriculum* (Ministry of Education, 2007), *The Reading and Writing Standards for Years 1-8* (Ministry of Education, 2009), *The Literacy Progressions* (Ministry of Education, 2010), and in many of the Ministry-funded literacy professional development programmes. For example, in *The Literacy Progressions* (Ministry of Education, 2010), the structure of the progressions states that after 6 months of school (Yellow level), students are developing the ability to search for and use interrelated sources of information (semantic, syntactic, visual and graphophonic), as well as use a wide range of word-solving strategies and comprehension strategies to make or confirm meaning. The reader is referred to the *Effective Literacy Practice in Years 1 to 4* (Ministry of Education, 2004), pages 28–31, for information about these sources of information in texts, however explicit teaching of phonics is not apparent in either of the documents.

Some researchers argue that whilst these policies and programmes are suitable for some students a large body of research demonstrates they are almost totally unsuitable for those students who have difficulties learning to read (Arrow & Tunmer, 2012; Chapman, 2016; Nicholson, 2003; Paratore, Cassino & Schickedanz, 2011; Prochnow, Tunmer & Arrow, 2015; Tunmer et al., 2013; Tunmer, Greaney & Prochnow, 2015; Tunmer & Nicholson, 2011).

Some researchers argue that New Zealand's predominantly whole language/constructivist approach to reading instruction is largely responsible for the gap between New Zealand's best and poorest readers students (Tunmer et al. 2013; Tunmer, Chapman & Prochnow 2004; Tunmer, Greaney & Prochnow, 2015; Tunmer & Nicholson, 2011). They argue that the whole language approach does not address the inequalities of reading related skills and knowledge of students at school entry, consequently creating

positive and negative "Matthew effects" (rich get richer and poor get poorer effects) whereby students who enter school already equipped with emergent reading skills and knowledge continue to benefit from whole language instruction, whilst those with low or no pre-reading skills remain disadvantaged from the content based approach to reading instruction. Liberman and Liberman (1990) argue that up to 80% of students with some or high pre-reading skills and knowledge will learn to read regardless of the philosophical underpinning of the instructional approach however the remaining 20% (or those with low pre-reading skills and knowledge) do not acquire the alphabetic principle unless through explicit and appropriated differentiated instruction (Arrow, Chapman & Greaney, 2015; Liberman & Liberman, 1990; Prochnow, Tunmer & Arrow, 2015).

Code emphasis/phonic approach.

Chall (1967) distinguished between reading approaches as either code-emphasis or meaning-emphasis approaches. Code emphasis programs are usually referred to as phonics programs in lay terms. The code emphasis approach focuses on the explicit teaching and developing students' knowledge of letter-sound correspondences, orthographic skills to decode new words, words and word parts in isolation and in contextual reading, and the importance of word level cues over context level cues.

Critics of the code-emphasis approach argue it decontextualized activities that leads to isolated texts and reduces reading and writing to simply matching letters to sound, children sound out every word and read stories that contain strange language patterns as a result of limited and controlled vocabulary, too much emphasis on lower-level skills that require students to simply decode and transcribe print (Katz-Sulgrove, Peck & McLaughlin, 2002).

New Zealand's National Literacy Strategy

Tunmer et al. (2013) identified three interrelated factors that appear to have

contributed to some of the challenges of New Zealand's national literacy strategy: (1) A constructivist orientation toward literacy education, (2) the failure to respond adequately to differences in literate cultural capital at school entry and (3) restrictive policies regarding the first year of literacy teaching. They infer from international literacy surveys as well as data collected by the Ministry of Education (MoE) that New Zealand's national literacy strategy has fallen short. A high level of variability in New Zealand test scores from international surveys of reading has been evident for decades (Chapman, 2016; Lee, 2011; McDowel, Boyd, Hodgen, & van Vliet, 2005; Mullis, Martin, Foy, & Drucker, 2011; Reynolds & Wheldall, 2007; Tunmer et al. 2013; Tunmer, Chapman, & Prochnow, 2003, 2004, 2006; Tunmer, Greaney & Prochnow, 2015; Tunmer & Prochnow, 2009; Tunmer, Prochnow, Greaney & Chapman, 2007). Tunmer et al. (2013) assert this is surprising considering New Zealand's unified national education system and uniform approach to literacy instruction and intervention. It is also surprising given that, in comparison to other English speaking countries like the USA or Canada, most aspects of literacy education are controlled essentially by the MoE, and that there is considerably less variation in materials, reading methods and instructional strategies used in regular classroom reading programmes and in nationally implemented intervention programmes.

Early recognition of the literacy gap was made by Elley (1992) who recognized from the PIRLS 1992 report that New Zealand had a large spread of scores between good and poor readers compared to many OECD countries and that this may have been due to low SES factors and to ESL backgrounds of immigrant children. Nicholson (1997) found disparities between children of different ethnic backgrounds in their school entry literacy related skill knowledge, these differences in literacy achievement between Maori and Pakeha students steadily increase over the first years of schooling, and subsequently into adulthood (Ministry

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of Education, 1997; Nicolson, 2003; Nicholson & Gallienne, 1995; Tiruchittampalam, 2014; Tunmer & Nicholson, 2011). To address concerns about literacy achievement, the New Zealand government created in 1999 a Literacy Taskforce and an Expert Advisory Group to assist in achieving the goals of raising the literacy achievement of all students but with particular attention given to closing the gap between the lowest and highest achievers (Ministry of Education, 1999). Additionally, an Education and Science Committee of the New Zealand Parliament was created to provide recommendations to the Government on how the reading gap can be closed specifically by determining how and why many children are failing to learn to read effectively (New Zealand House of Representatives, 2001). The report found that the New Zealand government rejected many of the key recommendations of the Literacy Expert Group which included making changes to the New Zealand approach to literacy education such as that schools use phonics programmes in the classroom, that all primary teacher-training providers incorporate the teaching of phonetic skills and word-level decoding into their programmes, and that there be a greater emphasis on the benefits of phonics instruction in literacy leadership materials (Tunmer et al., 2013). In 2006, the same committee concluded that evidence from national and international assessments and studies support the proposition that New Zealand has a disproportionate number of students who underachieve. Despite the recognition that New Zealand students underachieve, the 2006 recommendations did not include any directional change towards New Zealand's approach to teaching reading (whole language/constructivist approach) and the Ministry continued to fund Reading Recovery for remedial reading instruction in New Zealand schools. Instead MoE placed emphasis on devoting more resources to comprehensive professional development in assessment practices so that schools would be trained in the collection and use of data to inform their teaching practices (Tunmer et al., 2013).

In 2010, the MoE introduced national standards in reading and writing for Years 1-8 as another strategy for reducing the literacy achievement gap (Ministry of Education, 2009). MoE (2016) indicator reports demonstrate National Standards results for Year 1 to 8 students and show 78.0% are achieving at or above the standards for reading in 2015. However the proportions of Māori and Pasifika that are reaching the standards are lower than the overall proportion of students reaching the standards. The report also recognizes international assessments show no significant change in New Zealand Year 5 students' reading performance over the period from 2001 to 2010. This finding commensurate with data from the MoE (2011) Briefing to the Incoming Minister which indicated that over the past decade there had been little improvement in early literacy/numeracy especially for Maori and Pasifika children. 18% of Maori and 16% of Pasifika were not achieving basic literacy and numeracy skills by age 10, compared to 4% of non-Maori and non-Pasifika children. The Briefing concluded that the greatest challenge facing the schooling sector is producing equitable outcomes for students.

In a critique of National Standards, Greaney and Arrow (2010) suggested that while the introduction of plain language reporting might allay some of the confusion surrounding what teachers report to the parents, it does not have any impact on the closing of the literacy achievement gap. They assert it is more necessary to look at the reasons why there is such a literacy gap, and suggest the predominate constructivist whole language approach to reading instruction that is promoted in Ministry of Education publications is the main cause.

To summarise so far, one position is that the literacy gap is related to socioeconomic status (SES) and English as a second language (ESL) factors while the other position in that it is due to the whole language approach used in schools.

Emergent Reading Skills and Matthew Effects in Reading Achievement

Emergent reading skills are important, especially alphabet knowledge. Nicholson (2005)

reported that a child who starts school without them has a 70-80 percent chance of having reading problems. There is substantial evidence that children from low-income backgrounds begin school with significantly lower levels of literacy-related skills and experiences than from more advantaged backgrounds (Lonigan, 2003; Nicholson, 2003; Snow, Burns & Griffin, 1998; Tunmer, Chapman and Prochnow, 2006; Whitehouse & Lonigan, 2001). In fact, the home literacy environment has been suggested as the major contributing factor to these differences in entry-level pre-reading skills (Blachman, 2000; Hart & Risley, 2003, Nicholson, 2003; Rodiguez-Brown, 2011; Tunmer, Chapman & Prochnow, 2006).

An extensive amount of research (Catts & Kamhi, 2005, Spear-Swerling & Sternberg, 1994) argues the wide spread of reading scores both internationally and in New Zealand is largely the results of positive and negative Matthew effects, a term coined by Stanovich (1986) that describes the negative consequences associated with failure in reading. The term is taken from a biblical passage found in the book of Matthew (Matthew 25:29, Modern King James Version). The argument is that those who start reading with more difficulties often get caught in a downward spiral of failure. In a longitudinal study, Nicholson (2003) followed 88 low and 23 high (SES) children over a period of five years. The results showed that after five years of school, a little over half (52 percent) of the low-SES children were at least a year below average for their age compared with only 8 percent for the high-SES children. In effect, the gaps between reading-related skills of children from low and high SES backgrounds grew wider as the children grew older.

Literate cultural capital is a generic term referring to reading-related skills at school entry that are strongly linked to activities in the home environment that support early literacy development (Tunmer, Chapman & Prochnow, 2006; Tunmer & Nicholson, 2011). International and New Zealand research indicates children with a higher form of literate

cultural capital respond better to literacy instruction and become better readers than children who do not (Nicholson, 2003, Whitehurst & Lonigan, 2001). Tunmer, Chapman and Prochnow (2006) in a longitudinal study of literacy development in New Zealand found that literate cultural capital at the start of the school year accounted for nearly 50% of the variance in reading achievement of year 7 students. Arrow and Tunmer (2012) and Prochnow, Tunmer and Arrow (2015) assert that students who enter school with low literate cultural capital generally need more explicit, systematic, teacher directed instruction in order to learn to read, however children who enter school with high literate cultural capital may benefit better from child-directed, implicit instruction. Arrow, Chapman and Greaney (2015) argue for differentiated instruction as an approach better suited to overcome differences in literate cultural capital at school entry than the current "one size-fits-all" whole language/constructivist approach. Research also suggest the importance of teachers accessing effective assessments that better enable them to identify specific learning needs of the child (Arrow, Chapman & Greaney, 2015; Arrow, MacLachlan & Greaney, 2015).

Reading Recovery

One of the strategies adopted by the MoE to address the underachievement gap in New Zealand schools is the Reading Recovery (RR) programme. RR is an early literacy preventative programme for at risk-students after one year of school. It was designed by Dame Marie Clay from The University of Auckland in the 1970s and has been implemented widely in many countries outside of New Zealand including the United States, Canada, Great Britain and Australia for a period of approximately 20 years. It aims to substantially reduce the incidence of reading failure in a school system by accelerating to average levels of performance the progress of 6-year-old children who show signs of reading difficulty (Clay, 1993). RR continues to be a government funded intervention in New Zealand which receives support from the

MoE. It is a programme taken in addition to the regular classroom reading instruction, and as Smith and Elley (1995), indicate, it complements the current whole language approach utilized in New Zealand classrooms.

Reading Recovery has been the focus of substantial studies over the course of its 30-year history. Research has concentrated on a variety of issues including merits and limitations of its instructional approach, cost effectiveness, and efficacy regarding producing accelerated and long-lasting gains in students literacy achievements. D'Agostino and Murphy (2004) summarize the difficulties in evaluating Reading Recovery including: student selection and attrition policies, barriers to locating an equivalent comparison group, reliance on outcome measures designed for the programme, and problems inherent with accurately measuring students' achievement levels.

Support for RR.

May et al. (2015) reported first-year results of an implementation study of the RR programme at multiple schools in the state of Iowa and found the Department of Education's Institute of Education and Sciences judged Reading Recovery to have strong evidence of effectiveness. In this study a national sample of children were randomly assigned to Reading Recovery or a non-treated control group. Initial results indicated that Reading Recovery children made significantly greater gains than control group children.

Recent meta-analysis studies have given support to these findings. What Works Clearinghouse (WWC) (US Department of Education, 2013) considered the extent of evidence for Reading Recovery on the reading skills of beginning readers based on three studies and found results to be small for four outcome domains—alphabet knowledge, reading fluency, comprehension, and general reading achievement. However, Reading Recovery was found to have positive effects on general reading achievement and potentially positive effects on the

selected domains.

In response to the possible criticism that only a small number of studies met WWC criteria, Schwartz (2015) highlighted the WWC (2007) analysis of beginning reading programmes which produced reports on 24 of 153 beginning reading programmes that had one or more studies meeting their evidence standards with or without reservations. Schwartz noted that the five RR studies included in the WWC evidence base (2008) exceeded the number of clinical trials available for other programmes and provided substantial support for the causal link between RR intervention and student progress. WWC (2014) concluded that RR had a significant positive impact on the general reading achievement of struggling readers in the first grade.

D'Agostino and Harmey (2016) state RR is an effective early literacy intervention for struggling readers although they acknowledged ongoing concerns regarding the longevity of the impact effect. They also question if the programme should be held accountable for a child's achievement 2 or 3 years down beyond the intervention period, given that it is a programme designed to be short term and integrated into the school system with other interventions and classroom practice.

Against RR.

While RR has been successful in bringing about change at a political level and in teacher training as well as modest positive effects for underachieving readers (Shanahan & Barr, 1995; Reynolds & Wheldall, 2007) other research indicates it has not been shown to be more effective than other, often less expensive programmes (Slavin, Lake, Davis & Madden, 2011). Similarly, in a meta-analysis of one-to-one tutoring programmes in reading, Elbaum, Vaugn, Hughes and Moody (2000) concluded that the findings of their meta-analysis did not support the superiority of Reading Recovery over other one-to-one reading interventions. A review of

Reading Recovery by Shanahan and Barr (1995) found that it did not lead to systematic changes in classroom instructions, thus making it difficult to maintain gains over a greater length of time. Reynolds and Wheldall (2007) looked at reading intervention research from the state of Victoria in Australia and did not find evidence to support long term gains. Chapman, Greaney and Tunmer (2007) argued there was a lack of evidence of long term gains for the Reading Recovery programme in the New Zealand context and criticised the NZCER (McDowel et al. 2005) report for not addressing this issue. Greaney (2011) asserted that the RR programme's reliance on the Multiple Cue approach to reading ultimately underpins how teachers both assess oral reading progress (running records) and how they instruct for word identification (teaching prompts). Despite the large amount of international research that demonstrates the importance of specific word-level identification skills, there continues to be concern about RR's reliance on the Multiple Cue approach.

Sustainability of RR in the New Zealand context.

Chapman and Tunmer (2016) examined PIRLS 2011 data for New Zealand students who had been in in the RR programme three years earlier when they were 6 years old. They concluded from the PIRLS 2011 data that on average, students who received RR three years prior to the PIRLS 2011 survey were performing markedly lower than their same-age peers who did not receive remedial reading assistance. Two New Zealand studies specifically examined the performance of RR students who had been successfully discontinued between two and four years earlier. Jesson and Limbrick (2014) and Nicholas and Parkhill (2010) found that gains made in RR by children who were successfully discontinued from the programme did not last for more than 50% of them in terms of maintaining at least average literacy learning performance outcomes.

In response to these two studies, Schwartz (2015) argued that whilst these two studies

used school records to identify and track the progress of children who demonstrated accelerated progress during their RR intervention, neither study tracks progress for a similarly low group of students who did not receive RR and compare the distribution of scores of RR students several years after the intervention against national New Zealand norms on measures of reading achievement. Schwartz (2015) argues the findings are what would be expected for students whose literacy progress was accelerated in the early years of school, but who have a number of risk factors in their lives that contributed to their low initial literacy performance. Schwartz (2015) argued it is not whether RR students maintain their gain, but rather what factors within the system help students maintain their intervention gains over time.

In summary, there is much international debate about the effectiveness of the RR programme. Critics argue that RR has not been shown to be more effective than other, often less expensive, remedial programmes. The evidence remains disputed regarding long term gains and only small positive effects have been found. Additionally, problems in data collection, evaluation policies, selective use of data, unsustainable long term benefits, inefficient instructor-pupil ratios, poor targeting, and the strong emphasis on the Multiple Cue with its whole language approach to teaching reading have all been highlighted as key contributing factors to the lack of long term success of the RR programme in resolving the low literacy performance of the New Zealand Education system (Chapman, Greaney & Tunmer, 2007; Iversen, Tunmer & Chapman, 2005; Nicholson, 2002; Reynolds & Wheldall, 2007; Tunmer & Chapman, 2003). In contrast, other researchers have argued that RR does have a reasonably strong effect, has sustainable long term benefits, and is just as effective as other interventions (D'Agostino & Harmey, 2016; Hattie, 2012; Schwartz, 2015; WWC 2007; 2008; 2014)

Evidence Based Best Practices in Reading Instruction

Researchers favouring the phonological approach to reading have cited an extensive amount of international and New Zealand based research on the reading acquisition process Research supports the addition of explicit and systematic instruction in phonemic awareness and phonemically based decoding skills to intervention strategies (Greaney, Tunmer & Chapman, 1997; Lovett et al., 2000; Ryder, Tunmer & Greaney, 2008; Tunmer & Greaney, 2008). An Australia Government report concluded systematic phonics teaching within a stimulating and literacy-rich environment is paramount for effective teaching of reading in the early years (Department of Education Science and Training, 2005). In England, the Rose Report (2006) recommended that the most successful way of teaching reading should be a move to phonic based instruction. The scientific evidence does seem to support phonemic awareness and phonological processing skill as an important prerequisite for learning to read (Iverson & Tunmer, 1993; Morris, Tyner & Perney, 2000; Ryder, Tunmer & Greaney, 2008; Santa and Hoien, 1999).

Researchers continue to identify what type of instructional programme provides the most successful outcomes for the majority of beginning readers who may be at risk. Some have found a direct link between effective remedial instructions and explicitly taught phonological processes (Juel, 1996; Lovett et al., 2000; Torgesen et al., 2001) though this has not been sufficient to increase fluency as well. Snow and Juel (2005) conclude that attention to small units in early reading instruction is helpful for all children, harmful to none and crucial for some. Research indicates that the majority of poor readers have difficulty in the phonological domain (Vellutino et al., 1996) and that phonological awareness is one of the best predictors of reading (Tunmer, Chapman & Prochnow, 2004). It is widely accepted that students should be identified as at risk and provided with appropriate intervention as early as

possible (Nicholson, 2003). The United States National Reading Panel (2000) carried out a meta-analysis of effective reading strategies and identified five essential factors that must be included if children are to be successful in reading: phonemic awareness, phonics, comprehension, fluency and vocabulary. Paris (2005) also concluded that these five factors are essential for the development of reading skills, and further differentiates these skills into two categories, constrained (alphabet knowledge, phonological awareness and oral reading fluency) and unconstrained skills (vocabulary and comprehension). Constrained skills have a ceiling for mastery and are acquired at a rapid rate whilst unconstrained skills develop over longer periods of time and may never be completely mastered. Greaney and Tunmer (2010) however argued that Paris downplayed the importance of alphabet knowledge and the foundational effects of phonemic awareness on learning to read.

More recently, the concept of a balanced literacy programme has been suggested as an integrative approach, portrayed by its advocates as taking the best elements of both whole language and code-emphasizing phonics approaches (Adams, 1990; Nation & Angell, 2006; Pressley, 2006; Tunmer & Nicholson, 2011). Some researchers have concentrated on the best approach for individualized students keeping in mind the stage of their schooling, and the timing of the reading instruction in which they receive it. Some research indicates the importance of differentiated instruction for children who come to school with both low and high amounts of literate cultural capital (Arrow, Chapman & Greaney, 2015). They argue that the role of phonemic awareness, word recognition skills and metacognition knowledge all are central to the heart of an effective remedial programme for students needing additional support. In summary, key elements of a remedial programme should include instruction that is preventative in nature, assesses phonemic awareness and word recognitions skills, provides explicit instruction in both decoding skills and context use, and provides reflection on

metacognitive knowledge and strategy.

Although there may never be complete consensus of what the most effective method of teaching reading is, the research reviewed in this current study strongly suggests there is a solid base of knowledge that recognizes the essential role of early reading skills such as phonemic awareness, fluency, vocabulary and comprehension in order to be successful readers.

Research on Quick60

The Quick60 literacy programme is based on developmental theory especially Vygotsky's Zone of Proximal Development (Berk & Winsler, 1995) and empirical research that includes reading acquisition, reading difficulties and early intervention programmes (Iversen & Tunmer, 1993; Iversen, Tunmer & Chapman, 2005). Originally created for small group instruction of students not meeting current classroom standards, Quick60 has also been shown in unpublished trials to be effective as a whole class teaching programme at the New Entrant level (Chapman, 2016). Quick60 contains many essential features of what literature demonstrates as best practices such as prevention through early intervention before the cumulative effects of reading failure become chronic, and content that covers a number of aspects of reading and writing processes. These processes include fluency in reading, spelling words in isolation and context, and the introduction of new high frequency words into reading and writing vocabulary which builds fluency, vocabulary and comprehension on connected text. The programme also involves teaching new phonic/vocabulary skills explicitly and systematically, provides for comprehension strategies, and revises, consolidates and extends learning as the student progresses through the book levels. (Iversen Publishing, 2016).

Quick60 comprises the best from both approaches of the literacy debate (whole language versus code emphasis/phonetic) by promoting the researched need for the inclusion

of phonological awareness within the systematic structure of the Reading Recovery Programme (Iversen, Tunmer, & Chapman, 2005; Chapman, 2016). Phonemic awareness is taught explicitly, but not in isolation. Rather, teaching sessions are taken from the context of what students are reading or writing so that the processes do not become isolated rote learning exercises.

Research Context of the Current Study

The research reviewed in this current study strongly suggests there is a solid base of knowledge that recognizes the essential role of early reading skills such as phonemic awareness, fluency, vocabulary and comprehension. In consideration of this, I sought to find out if the Quick60 programme was an effective reading intervention, in comparison to the RR programme given they are different in instructional approach.

Research Questions

1. To determine whether Quick60 is an effective literacy intervention for at- risk New Zealand students.

2. To find out if the Quick 60 and Reading Recovery interventions are comparable in their effectiveness.

Null Hypothesis

There will be no difference between Quick60 and RR in their effects on reading and spelling.

Chapter 3

Methodology

This chapter describes the participants, the treatment conditions, the measures, the research design and the research procedure. The design of the study was a non-equivalent experimental design in that there was an experimental group (Quick60, Reading Recovery) and a control group but children were not randomly assigned to groups. The first question of interest was whether Quick60 is an effective remedial literacy intervention for at-risk New Zealand students. The second question of interest was whether the two interventions were comparable in their impact on language, reading and spelling skills.

Participants

Table 1 shows the composition of students according to gender, age and ethnic group. The participants in the study were 30 children from Years 2 to 4. There was a significant difference among the three groups in age, F(2,18) = 35.97. Follow up contrasts showed that The Control and Reading Recovery children were no different to each other in age but were significantly younger than the Quick60 group. There were eight children in the Q60 group, 12 in the RR group and 10 in the Control group. Chi square results were almost significant for ethnicity (p=.06) in that the Quick60 group were all Maori students. There were no differences for gender but there were for classroom (Quick60 children were in different classrooms according to age) and for year level (Quick60 were in a higher year level). 26 schools were approached but only 2 that met the requirements agreed to participate in the study.

The participants were drawn from these two Auckland Primary schools located in low socio- economic and culturally diverse areas. Decile ranking is used to calculate funding each school receives from the Ministry of Education. Decile 1 schools receive the highest level of funding due to their location in low socio-economic areas, while decile 10 schools receive the

lowest level of funding due to their location in high socio-economic areas. School A was decile 2 and currently uses both the Quick60 and RR programmes. It had 23 student participants in this study. It had a roll of 390 students and the student population is made up of 56% Maori students, 32% Pasifika (Samoan 20%, Tongan 7% and Cook Island Maori 5%) and 12% of other nationalities including NZ European (3%), Indian (4%) and Other (5%).

School B was decile 3 and currently uses only RR, however it was examining alternative reading programmes to better meet the needs of their students. It had seven students in this study. It had a school roll of 457 students and the student population was made up of 41% Pasifika students (Samoan 16%, Tongan 15%, Niuean 4% and Cook Island Maori 6%), 25% Maori students, Indian 12%, NZ European 10% and 12% of other nationalities including Middle Eastern African, Chinese, Fijian and Filipino.

The Q60 participants from School A were identified by their school as below their chronological reading age with a discrepancy of at least one year between chronological and reading age for their year level. Reading ages for this group were calculated using the Prose Reading Observation, Behaviour and Evaluation (PROBE) (Parkin, Parkin, & Pool, 2002) a test that is used in many New Zealand schools to assess the reading ability of children in Years 3 to 10. The participants in this group were at the Year 4 level. It is common NZ practice is to use this assessment for their age group. There are 20 levels of reading texts available in the PROBE series with difficulty levels ranging from 5.0 years through to 15.5 years. This individually administered tool measures reading accuracy and reading comprehension to calculate a reading age. Students read the passages aloud. Testing stops when the student is no longer able to read with accuracy of 90% or better and comprehension of 70% or better.

The participants in the RR group intervention from both School A and School B were identified by their school as below their chronological reading age with a discrepancy of at

least one year between their chronological age and their reading age. Reading Recovery targets the lowest 15% to 20% of students in a school who have not displayed evidence of benefitting from formal reading after the first year of schooling (Nicholas & Parkhill, 2014). Reading ages for the RR group were calculated by their school using the PM Benchmark Reading Assessment Resource which is commonly used for junior school pupils, and has been designed to assess students' instructional and independent reading levels using unseen, meaningful texts (Nelson Education, 2016).

The Control group participants were identified by school personnel as students who best matched the RR students in age and reading levels. Whilst efforts were made to include students in the control group who also showed a discrepancy of at least one year between chronological and reading age, this was not possible given the constraints of the school population. Two participants from School B were identified as showing a discrepancy of at least one year between chronological and reading age. The remaining eight had 6-10 months discrepancy between chronological and reading age. The control children were drawn from the same classrooms as the RR participants in School A. This was not possible in School B. The requirements of the study asked for children to identify as below their chronological reading age and because of this, the control participants in School A, as were the RR participants, were drawn from several classrooms.

Table 1

Composition of students according to gender, age and ethnicity

	Groups				
	School A			School B	
	Quick 60	Control	RR	Control	RR
Number	8	8	7	2	5
Chronological Age	7.53	6.39	6.20	6.17	6.45
BPVT (Standardised Score)	83.13	89.88	91.57	95.00	88.00
Burt Reading Age	6.38	5.72	5.45	5.63	5.47
Ethnicity					
a) Maori	8	3	4	1	1
b) Pacific Islander	0	5	3	1	1
c) European	0	0	0	0	3
Gender					
a) Males	5	4	3	0	3
b) Females	2	3	4	2	2
Year					
a) 2	0	7	7	2	5
b) 3	4	0	0	0	0
c) 4	3	0	0	0	0
Classroom					
a) B1	1	0	0	0	0
b) B2	2	0	0	0	0
c) B4	4	0	0	0	0
d) C0	0	3	2	0	0
e) D4	0	2	3	0	0
f) E3	1	0	0	0	0
g) E4	0	3	2	0	0
h) R5	0	0	0	2	4
i) R6	0	0	0	0	1

Research Design

A quasi-experimental design was used in the current study. This was a pretest-

posttest study. There were 30 children in total with eight children in the Q60 group, 12 children in the RR group and 10 children in the Control group. The allocation of children to groups was outside the control of the researcher and determined by the schools so it was impossible to allocate children on a random basis to groups. Schools allocated children to the intervention based if there was a discrepancy of at least a year between chronological and reading ages. School A decided to implement Q60 for an older group of children in Year 4 because as per RR policy, it is administered to six-year-olds only. The intervention groups received instruction. Quick60 was done in small groups of four students. Reading Recovery was one-to-one. The Control Group children did not receive any intervention but received normal classroom instruction. School A classroom teachers implemented the Joy Allcock Spelling Programme and the Gaye Byers Word Work programme in their classrooms. School B classroom teachers implemented the Joy Allcock Spelling Programme in their classrooms The control group did not receive intervention after the study was complete. This did not present any major ethical concerns as it followed standard school practices. NZ schools assign students to intervention groups based on highest need in the classroom or school and often students who are below age appropriate standards do not get selected for intervention. Some schools, like school B, have such a high demand for the RR programme that below-average readers are put on waiting lists. Depending on the progress of the selected students, the students on the waiting list may or may not receive intervention. Some schools provide alternative programmes or teacher assistant (TA) help, however the students in the control group for this research did not receive any additional intervention during the study.

Measures

Pre and post intervention data were collected on all participants using standardized

assessments and non-standardised Quick60 assessment tools.

Standardised assessments

The British Picture Vocabulary Scale (BPVT) was used to assess students' receptive (hearing) vocabulary in Standard English. It is an individually administered test and items were orally presented, no reading or written responses were required from the child. The researcher named an item and the student indicated the correct response verbally by indicating the correct number by the picture or by pointing to the correct picture. This assessment was adminstered pre-intervention only for the purpose to exclude any potential students with major language impairments from the research. Standardised recording and scoring protocols, as per the manual, were used (Dunn & Dunn, 2009). Reliabilities (Cronbach's alpha) for this test were 0.86.

The Burt Word Reading Test was used as a measure as it is standardised for New Zealand students. It is an individually administered test consisting of 110 selected words in isolation, printed in differing sizes of type and graded in order of difficulty. Students were asked to read each word aloud until 10 consecutive words were read incorrectly. Standardised recording and scoring protocols, as per the manual, were used (Gilmore, Croft & Reid, 1981).It has high internal consistency (reliabilities above .91).

Non-standardised assessments

Quick60.

The Quick60 programme had its own set of assessment tools (shown in the Appendices) to assess students and match them to the appropriate instructional materials. The following assessments were completed:

Spelling test.

The spelling test is designed to assess how well the students can translate sounds into

letters. This test comprised of 24 words that are context related. Each word is presented aurally, in a sentence, and then the word is repeated. The task is terminated when students make four consecutive errors. The items were scored in two ways: by the number of words spelled correctly (out of a possible 24) and by scoring each item according to a scale, with points awarded for conventional and unconventional spellings that captures one or more phonemes found in the item, with a total score possible of 96. Using points to score gives a truer picture of the student's ability to hear and record the sounds in words. Sometimes, students can segment some but not all phonemes. Scoring points lets you see which sounds the student can or cannot record and at which position in the word these sounds occur (Appendix A).

Pseudo-word decoding test.

This test assesses how well students can translate letters into sounds. Students who are unable to do this task will have trouble reading unknown words. The test is comprised of 42 pseudo words. The items were scored in two ways: one, by the number of words read correctly and two, by the total number of sounds pronounced correctly in each item, provided the sounds in the item were blended together into a single syllable with a total number of 153 possible points (Appendix B).

Other non-standardised assessments

Running record/reading book level.

Book level assessments are the most frequently used literacy assessments undertaken by New Zealand teachers. Book reading level was assessed at the end of 2015 by the students' teachers and independently by the researcher in early 2016. Book level is not an equal interval scale as the average increase in book level for a given period of instruction is greater for the lower level books than for the higher level books. For example, a 5-year-old student is

expected to progress from level 1 to level 12 by the end of their first year of school whereas a 7-year-old is expected to progress from level 18 to level 22 by the time they turn 8, a movement of 4 book levels (Hartley, 1999). (Appendix C).

The books used for the independent testing pre and post intervention were taken from the inaugural 1963 Ready to Read Series published by the New Zealand Department of Education. An older version of this series was used to ensure the participants were presented with unseen texts. The readers were all graded in difficulty. The Ready to Read series is the core instructional reading series for New Zealand students in years 1–3 working at curriculum levels 1 and 2. A colour wheel is located on the back of each graded readers, providing information about the suggested reading level. The Ready to Read series texts are provided for guided and shared reading and are distributed free to all New Zealand schools with junior classes. The students were asked to read the text unseen after being told the title and brief orientation to the story. Accurate reading and miscues were recorded on a Student Record sheet. The students were then asked to retell the story in his/her own words and answer five questions prescribed to each book. The same books were used pre- and post-test by the researcher. The researcher was familiar with Running Records and had 18 years of experience in conducting Running Records in the classroom. The students' reading level was assessed on both accuracy and comprehension. A mathematical formula was then used to ascertain whether the reading level was easy (95%-100% accuracy level), instructional (90%-94% accuracy level) or hard (below 90%) and an answer of at least 3.5 of the comprehension questions completely accurately was needed to be accredited as reading at that book level.

Procedure

The study was carried out during terms one through to term three of the school year. The 30 participants were individually tested by the researcher in a quiet withdrawal room at

their school during school hours. All testing was completed by the researcher on a one-to-one basis in a room away from the classroom. Reliability checks for the scoring of the Q60 assessment measures did not take place due to time constraints. A Consent Form that was worded in a child-friendly manner was shared and Informed Consent was received from schools and families prior to any testing taking place (Appendix D).

The Quick60 programme in School A was implemented by two teacher aides (TA), with four participants in a group. The first TA had 20 years of experience working as a TA and 4 years teaching the Q60 programme. The second TA had 4 years working as a TA and 2 years teaching the Q60 programme. The RR teachers in School A both had 4 years classroom teaching experience and both were in their first year of implementing the RR programme. Students from school B were taught by 2 RR teachers. One RR teacher had 15 years of classroom teaching experience and 5 years implementing the RR programme. The other RR teacher had 10 years of classroom teaching experience and 6 years of implementing the RR programme.

The teachers of the control children in both schools ranged in levels of experience varying from a teacher in her first year of teaching to teachers with more than 15 year experience.

Quick60

Quick60 is described in the teacher manual (Iversen Publishing, 2016) as a prevention/early intervention programme for at-risk readers. The books and lesson plans are sequentially leveled and non-fiction, making them appealing to reluctant, inexperienced and/or older readers (Figure 1). Quick60 incorporates all aspects of literacy such as phonemic awareness, phonics, comprehension, vocabulary, fluency and spelling. The programme can be used with small groups of up to five students and can be implemented by a teacher or

teacher aide without further training. The books are designed to be used in conjunction with lesson plans which are very explicit. Each 40 minute lesson comprises of seven components that remain consistent throughout the programme: Quick Quiz, New Word, Quick Read, Quick Check, Quick Write, New Skill and New Book. Emphasis is given to reading and spelling. A new skill that draws the students' attention to print and helps them spell, is introduced in each lesson. Each lesson also provides for fluency practice, comprehension, vocabulary instruction and writing.

Figure 1. Sample of a leveled text, lesson 15.2 (Iversen Publishing, 2016).
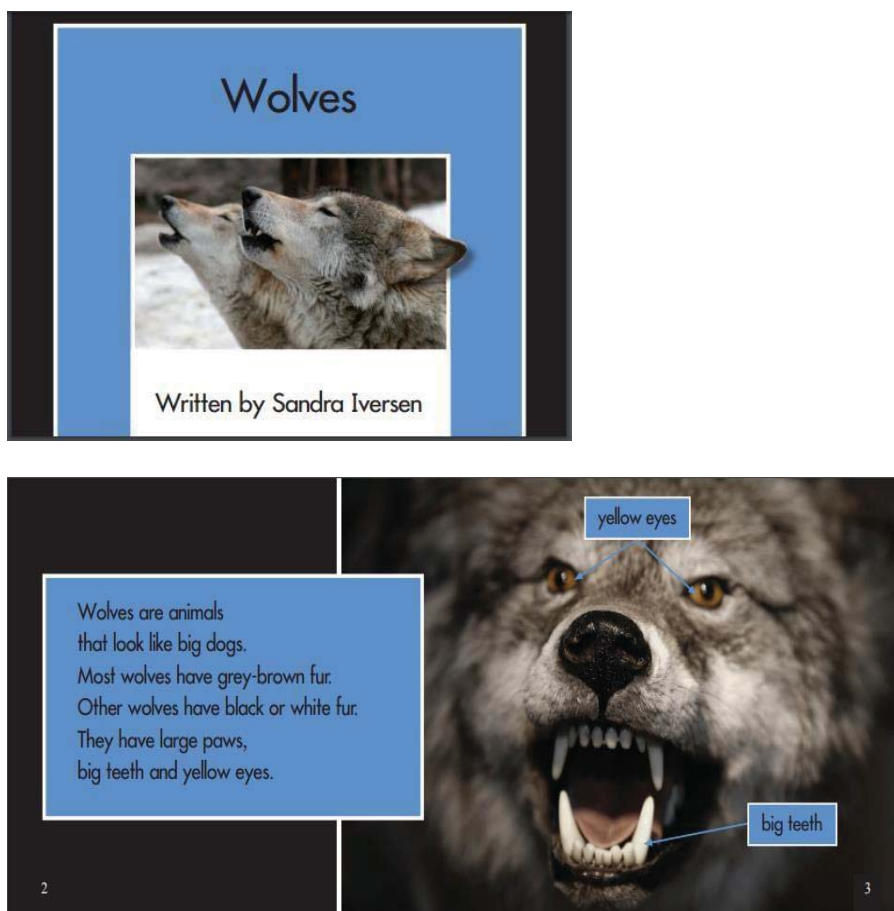
A lesson plan is provided for each book, following the same format with explicit instruction and guided practice in reading and writing (Appendix E). The lesson plans each contain a color-coded check sheet to record a student's oral reading. There are questions to help assess both literal and inferential comprehension. The results of both these measures,

plus a level of reading fluency, can be recorded on a data point sheet that accompanies each lesson plan. Subsequent lessons provide opportunities for revision and consolidation. (Iversen Publishing, 2016).

Two trained teacher aides administered the Quick60 programme 4 days a week for 40 minutes each day over 13 weeks. The school originally planned to implement lessons 5 days a week however later decided it would teach lessons 4 days a week. The researcher checked for treatment fidelity by observing two of the lessons for each TA during the 13 weeks, once at the week 6 mark, and once at the week 13 mark. Results of these observations indicated that the teacher aides implemented the programme in the prescribed manner.

Reading Recovery.

Daily 30-minute Reading Recovery lessons were individually designed and delivered by specially trained teachers. Using a wide range of procedures (these are detailed in Clay, 2005a; 2005b), teachers make moment-by-moment decisions within each lesson to support the individual child. Careful observation of reading and writing behaviors guides teaching decisions. As teachers gather data they align their teaching with what a child actually does. Reading Recovery teachers are trained to use Clay's Observation Survey (2005a) to assess each child's strengths and confusions. Every day, the teacher takes a running record of the child's progress on text reading and uses the data for future lesson plans. The teacher uses other observational data to inform instruction: daily lesson records, students' writing, and change over time in reading and writing vocabulary. As explained in Clay (1981) there are seven steps in a typical lesson:

1.   Re-reading of two or more familiar books

2.   Letter identification practice using magnetic letters on a magnetic board

3.   Writing a story

4.   Sound analysis of words using the Elkonin technique

5.   Cut up story to be re-arranged

6.   New book introduced

7.   New book attempted

Each lesson consists of reading familiar books, reading yesterday's new book and taking a running record, working with letters and/or words using magnetic letters, writing a story, assembling a cut-up story, and reading a new book. The teacher creates opportunities for the child to problem solve and provides just enough support to help the child develop strategic behaviors to use on texts in both reading and writing. Every lesson incorporates learning about letter/sound relationships. Children are taught to hear and record sounds and to work with spelling patterns. Reading Recovery encourages comprehension and problem solving with print so that decoding is purposeful and students read fluently (Clay, 2005a; 2005b; Reading Recovery Council of North America, 2016)

In each of the two schools, two trained Reading Recovery tutors administered the programme 5 days a week for 30 minute lessons over 13 weeks. The researcher checked for treatment fidelity by observing two of the lessons for each of the RR tutors during the 13 weeks.

Ethical Considerations

This study was reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 15_032. (Appendix F). Informed written consent was obtained from the school principal, caregivers of the participants and the student participants. The caregivers and children in the study were given the option to opt out of the study. The children in the study were between 6 and 8 years of age. The reading assessments used in the study were from standardized and non-standardized (Quick60) assessments that

were appropriate for this age group. Confidentiality was assured in that names of the children, teacher aides, teachers or schools were not to be identified in the reporting of the study.

Summary of the Chapter

The design of the study involved three groups of children who either received Quick60 or Reading Recovery instruction as decided by their school. A control group of children did not receive any extra reading instruction. The Teacher Aides and Reading Recovery teachers implemented the programmes outside of the classroom for 13 weeks.

Chapter 4

Results

The chapter presents the results for the main research question for the study, that is, whether the Quick60 and Reading Recovery intervention programmes were comparable in their impact on reading and spelling.

The reader is reminded of the nature of the sample and how it was selected, that children were not randomly assigned to groups. Children were pre-selected for Reading Recovery by the schools. The schools then selected children of comparable age and reading level to children in the Reading Recovery group to be the control group. The researcher did ask for a control group of children comparable in age to the Quick60 group but this was not possible. As a result, there was a disparity in ages between the Quick60 group and the Reading Recovery and Control groups.

The School A sample started with 26 children (Quick60 = 10, Reading Recovery = 8, and Control = 8) but two of the Quick60 and one of the Reading Recovery children left the school during the study. School B started with eight children (Reading Recovery = 4 and Control group = 4) but one of the Control children was soon assigned to Reading Recovery and another child in the Control group left the school.

At the end of the study, 23 children from School A (Quick60 = 8, Reading Recovery = 7, and Control = 8) and seven children from School B (Reading Recovery = 5 and Control = 2) had completed all pretest and posttests. This produced a total sample of 30 children (Quick60 = 8, Reading Recovery = 12, Control = 8). The pretest and posttest means and standard deviations for the sample are shown in Table 2.

The initial analysis was analysis of variance (ANOVA). The repeated measures factor was time (Pre, Post). The between groups factor was Group and had three levels (Quick60,

Reading Recovery, Control). The dependent measures were Burt Word Reading, Pseudoword reading, Spelling, and Book Levels. The pseudoword and spelling measures were scored as words correct but also as phonemes correct and these are also reported in Table 2. The result of most interest was the time by group (T x G) interaction (see Table 2) to see if there was any difference in relative progress of any of the groups from pretest to posttest. The only result that was significant was for the Burt Word Test. Contrasts showed that Quick60 group made fewer gains in Word Reading than did the Reading Recovery and Control groups and that the Reading Recovery and Control groups made similar gains. A follow up ANCOVA, however, adjusting for pretest differences in Burt Word Reading scores showed no significant difference among the three groups (adjusted posttest means were: Quick60 = 21.78, Control = 24.25, Reading Recovery = 24.94). Further analyses were carried out, taking into account differences in chronological age at pretest but these also did not show any other differences among the three groups. To take account of possible differences between Schools A and B the analysis was also carried out just for School A children and the results were the same.

Table 2
Means and Standard Deviations – Pretest and Posttest Scores

Measures		Pretest			Posttest			ANOVA TxG	
		Quick60	Control	Reading Recovery	Quick60	Control	Reading Recovery		
		n = 8	*n* = 10	*n* = 12	*n* = 8	*n* = 10	*n* = 12	F(2,27)	*p*
BurtWord	*M*	25.38	11.40	9.92	30.25	21.80	21.33	4.11*	.03
	SD	6.14	6.92	5.02	4.92	7.60	7.30		
PseudoWord	*M*	6.00	.90	1.83	7.88	2.40	4.50	.36	.70
	SD	6.37	1.52	2.69	7.85	2.95	4.21		
PseudoPhon	*M*	32.00	6.40	11.83	41.50	16.20	24.92	.14	.87
	SD	37.09	6.00	12.12	50.08	19.52	20.53		
SpellWord	*M*	7.88	1.80	2.42	12.13	5.80	6.25	.06	.95
	SD	3.48	1.81	2.31	2.64	3.33	3.93		
SpellPhon	*M*	69.63	32.80	42.17	76.50	52.30	59.33	2.06	.15
	SD	7.93	22.45	18.53	4.78	20.85	19.90		
BookLevels	*M*	14.00	4.60	3.58	17.50	7.70	8.33	.80	.46
	SD	3.21	3.31	2.71	2.98	3.65	4.36		

Note: * = p<.05 BurtWord = Burt word reading Test; PseudoWord = Pseudowords correct; PseudoPhon=Pseudoword phonemes correct, SpellWord = Spelling words correct, SpellPhon = Spelling phonemes correct, Book Levels = Reading Recovery Book Levels

Summary

The results of the repeated measures ANOVA showed that Quick60 made significantly less gain in Word Reading than did the Reading Recovery and Control groups but once the pretest differences in Word Reading scores of the three groups were taken into account using ANCOVA, this difference disappeared. All other results showed no difference among the three groups. Follow up checks of the other results using ANCOVA to control for chronological age also showed no differences among the three groups. Taken together the pattern of ANOVA and ANCOVA results showed that neither Quick60 nor Reading Recovery made any more progress in reading of pseudowords, spelling, or book reading than the Control group. The Reading Recovery and Control groups made similar progress in Burt Word

Reading. Both groups gained more in Burt Word Reading than did the Quick60 group – but

this difference disappeared when differences in pretest scores were taken into account.

Chapter 5

Discussion

There have been numerous studies on the effectiveness of the Reading Recovery intervention and recurring recommendations from research and reviews that changes need to be made to include the teaching of phonological processing skills (Reynolds & Wheldall, 2007; Iversen, Tunmer & Chapman, 2005). The present study was novel in that it was the first time (to the researcher's knowledge) that two New Zealand interventions, Reading Recovery and Quick60, different in design and approach, have been directly compared. Chapman, Tunmer and Prochnow, (2001) assert that the students who enter New Zealand's Reading Recovery programme may be the most in need of instruction in word-decoding strategies, but are least likely to receive it. The need to identify interventions as an alternative to Reading Recovery that were more cost effective and reached more students was identified by McDowall, Boyd, Hodgen, & van Vliet (2005). Of particular interest for this research was to obtain evidence of the effectiveness of alternative interventions to RR so that school use of operational grant funding on literacy interventions is more informed and efficient. Schools would be able to factor in the data from the present study when making such decisions in the future. However, due to the many limitations of the study, interpretations from the findings cannot be made with certainty.

Did Quick60 and Reading Recovery have Comparable Effects?

The first research question for the study was whether Quick60 was an effective intervention for at-risk students. The results showed that Quick60 children did make gains in literacy but no more than did the Reading Recovery or the control group. The second research question was whether Quick60 and Reading Recovery were comparable in their effects. In answer to the second research question it appears that RR and Quick60 were comparable in

their impact on language, reading and spelling, although neither programme was any more effective than the other and no more effective than leaving children in the classroom. These finding supports the null hypothesis that Quick60 and Reading Recovery would be no more effective than each other.

A surprising result of this study was the control group making similar gains to those of the two interventions groups. This goes against current research that suggests the importance of remedial reading programmes for improving reading skills in struggling readers (Blaiklock, 2004; Castles & Coltheart, 2004; Greaney, Tunmer & Chapman, 1997; Lovett et al., 2000; Ryder, Tunmer & Greaney, 2008; Tunmer & Greaney, 2008). The results indicated that children in Quick60 and Reading Recovery did not progress any more than children in the Control group but the results may not be certain because the sample size was small. Further research would be needed to verify this result.

The results of the present study did not show an advantage for Reading Recovery or Quick60 over leaving students in the classroom and this might suggest that remedial interventions in general are not effective but Tse and Nicholson (2015) found in a study of 96 year two students from three lower SES primary schools in New Zealand that children who received Big Book and Enhanced Phonics instruction made significantly better progress in reading and spelling than a Control group. It could be that further research similar to this study, but with a larger sample size, may find different results to those found here.

No instructional intervention will work for all students no matter its level of researched support (Cook, Tankersley, Cook & Landrum, 2008) so educators cannot have abject faith that any given intervention will work for every individual student. Torgesen (2000) found the most effective early reading interventions were ineffective for between 2% and 6% of young children and suggested that 4%-6% of children still have weak word reading skills even when

interventions are applied. Children with the most severe risk factors for reading difficulties often continue to need more than 1 or 2 years of preventative instruction to achieve the goal of adequate reading by the end of the primary school years. School A in this study decided to implement Quick60 for older children who had been given remedial instruction in their classrooms in earlier school years. The Quick60 group was identified as already receiving classroom phonic and spelling instructional programmes such as Rainbow Reading, Jolly Phonics and Joy Allcock in the years prior to this research. Given the difference in year levels between the groups (Quick 60 children were two years older than the RR and Control groups) and the allocation of the students chosen by the school, it is possible the Quick60 group may have had a higher number of treatment resisters than would be found in a randomly allocated sample. Additionally, the school was identified as having strong phonic and spelling programmes already in place in their classrooms. Strong use of school wide classroom phonic and spelling programmes may begin to explain the similar gains found across all three groups.

Another consideration is that the researcher's assessment procedures for Running Records were different to what typically happens in the classroom, RR, and Quick60 programmes. In the current study, the students' reading levels were assessed on both accuracy and comprehension. The mathematical formula used to ascertain whether the reading level was easy, instructional, or hard was the same as found in the RR or Quick60 lessons. However, in the present study, an answer of at least 3.5/5 (70%) of the comprehension questions accurately was needed to be accredited a proficiency level. This differed from Running Records conducted by classroom teachers in schools A and B who require a minimum of 3/5 (60%) to progress to the next level. Q60 instructors required a success rate of 5/8 (62.5%) to move the student to the next level. There are no set comprehension questions for Book Levels in the RR programme.

In RR students are moved to the next level when reading accuracy is achieved independently and the text is discussed to satisfaction for general meaning. RR supports comprehension by utilizing strategies such as emphasizing what the child already knows that will help solve words and interpret the story, building connections during and after reading to support understanding, and having meaningful conversations about the text (Clay, 1991). Given that the participants of this study did not have previous experience with the higher standards required for comprehension questions, it is possible that similarities in results may be attributed to overall weaker comprehension skills.

Another relevant consideration is that Book level is not an equal interval scale. The average increase in book level for a given period of instruction is greater for the lower level books than for the higher level books. For example, a 5-year-old student is expected progress from level 1 to level 12 by the end of their first year of school. A 7-year-old is expected to progress from level 18 to level 22 by the time s/he turns 8, a movement of 4 book levels. Therefore it would not be expected that the Quick60 group would progress the same number of Book Levels as the RR group. However, with statistical analysis using ANCOVA (which statistically compensates for differences in pretest scores and chronological age) the results demonstrated no significant difference between the groups on any of the assessment measures, keeping in mind that the compensation is statistical and not real Statistical adjustment is difficult given the pre-test difference in book levels, chronological age, and reading ability between the Quick60 group and the other two groups but the overall pattern of results indicated that the three groups made similar gains across the different measures. The comparison of the Reading Recovery and Control groups, who made similar gains to each other, is especially interesting because these two groups were not different from each other at pretest. Reading Recovery children should have made greater gains than did the Control

children but they did not.

A final consideration is the number of lessons attended. Reading Recovery was taught five days a week whilst Q60 was taught four days a week. If all daily lessons were completed by a child for 13 weeks, RR children would receive 65 lessons compared to 52 for Q60 lessons. Complete data for the number of lessons for all participants in the study was not possible for this study however, data from a small sample of four Q60 children from school A showed between 26-39 lessons were completed. Data for four RR children from school B showed between 57-64 lessons were completed. If the Q60 group had received as many lessons as the RR group then they may have made better gains, however, we can't be sure of this.

Both interventions utilized a combination of whole language and phonic strategies in their programmes, however Quick60 argue that they provide a more systematic and explicit approach to teaching phonic skills. Given that the two intervention groups in this study achieved similar progress gains, several advantages of the Quick60 intervention were identified.

Firstly, Quick60 can be taught in small groups up to five students rather than one-on-one instruction, and can be delivered by a teacher or teacher aide instead of a qualified teacher with further one year training to be an accredited RR tutor. Quick60 is designed to be administered to any year 1-6 student who has fallen behind their age peers whilst RR is designed for the lowest performing students only after one year of school. Quick60 may potentially be a more cost effective intervention that allows for a higher level of access to children than RR.

Secondly, the Quick60 programme includes detailed, sequential lesson plans in a prescribed sequence with the skills that all children need to know taught. Most importantly, it provides literal and inferential questions for each book with opportunities for revision and

consolidation built into and across lessons. In contrast, RR lesson plans are incidental depending on what arises in the lesson, with no particular emphasis on the acquisition of phonemic awareness or phonic skills. The new book is not chosen to reinforce previous learning and no opportunities for revision are provided other than rereading.

Finally, Quick60 provides assessment through a Testing, Assessment, and Placement System (T.A.P.S) that includes a wide variety of test and placement passages. Each lesson includes a data point sheet to record percentage accuracy, self-correction rate, cues used, comprehension and fluency. Conversely, RR assessment is based on the Diagnostic survey: Letter identification, word test, concepts about print, writing vocabulary, hearing and recording sounds in words, text reading (Reading Recovery Council of North America, 2016). RR provides no ongoing data recording other than Running Records.

Limitations and Recommendations

It is necessary to consider the limitations of the study when interpreting the results. Generalisations from the results are inappropriate to make in the present study due to several threats to internal validity especially the small sample size and lack of random assignment. The results of this study revealed no significant differences between Quick60, RR, and the Control group in terms of effectiveness, however, a result that shows no significant differences does not mean that differences do not exist, rather they were not found in this present study.

This study had a small sample size and this is the main limitation. Sample size is important to ensure statistical power and a larger sample size may have produced statistically significant differences that were not found in the study. Making generalisations is difficult with a small sample therefore it is recommended that similar studies be conducted with larger sample sizes to assure a higher level of confidence in the results.

A quasi-experimental design was used in the current study because the student participants were already identified and placed by their school into a remedial reading programme. An experimental research design with randomized placement of students into the two programmes was not possible for the current study. However, it can be argued that utilizing quasi-experimental design minimizes threat to ecological validity, and since quasi-experiments are natural experiments, findings do allow for generalizations to be made about population (Robson, Shannon, Goldenhar, & Hale, 2001; Thyer, 2012). However, in the present study, internal validity may not be strong enough to allow for these generalisations.

Quick60 participants received fewer lessons than RR participants. Future studies should be conducted with equal number of lessons to ensure validity and generalisibility of the results.

A further possible limitation is that the present study does not include an interrater reliability check for scoring of the pretests and posttests. The tests however were standardised and the researcher checked the scoring to ensure it was accurate.

Another limitation of this study was the difference in age and year levels between the Quick60 group and the Control group. It was difficult for the researcher of this study to find a school that implemented both interventions for that same age group so that the Control group could be of the same age. Typically Reading Recovery is just for 6-year-olds whereas Quick60 is for older students. On the positive side the Control group was of the same age and ability level as the Reading Recovery group which made it possible to make comparisons between these two groups. In other studies of Reading Recovery, including the original study by Clay (1992), the control group is not always of the same ability level (Glynn, Bethune, Crooks, Ballard & Smith, 1992). Allocation of a control group matched for age and ability, as was possible for the RR and Control groups, was not possible for Quick60. A better control group

for Quick60 would have been to have had a group of children of similar age and ability. This was a significant limitation of the study in regard to the Quick60 group and interpretations must be taken cautiously. Given that the Quick60 group children were two year levels ahead of the RR group, this group may have comprised a larger than expected number of treatment resisters - children who do not respond the first time to the programme. Future recommendations include comparing Quick60 intervention groups of the same age and ability so that results are a better reflection of levels of progression.

Concluding Statement

The research reviewed in this current study strongly suggests there is a solid base of knowledge that recognizes the essential role of early reading skills in remedial reading programmes (whether it be whole language or phonics in approach). Reading skills identified in the literature as essential to good reading programmes include phonemic awareness, fluency, vocabulary and comprehension (Blaiklock, 2004; Castles & Coltheart, 2004; Greaney, Tunmer & Chapman, 1997; Lovett et al., 2000; Ryder, Tunmer & Greaney, 2008; Tunmer & Greaney, 2008).

This research adds to the current body of knowledge by exploring the effects of two remedial interventions that are philosophically different in approach. The majority of studies in this area have focused on the effectiveness of whole language or phonic based interventions. There is a growing body of research that provides evidence that a key reason for the increasingly large gap between New Zealand's best and poorest readers is a lack of focus on the explicit teaching of phonologically-based skills in the early years at school. A review of the literature found an identified need for evidence of effective alternative interventions to RR. The current study differed from previous studies in that it is the first time to the researcher's knowledge that Quick60 and Reading Recovery for this older age group

have been compared.

The evidence emerging from this small study indicates the Quick60 programme had the same impact as the RR programme in raising the reading achievement of students identified as below expected age levels but that neither programme outperformed the Control group. In view of several limitations of the present study, however, such as the small sample size and the different age level of the Quick60 children, this conclusion may not be appropriate.

More research is necessary before we can be sure of the effectiveness of the Quick60 programme. The results of the present study were that the Quick60 intervention programme was similar in impact to Reading Recovery even though the instruction was in small groups. This suggests in terms of policy that Quick60 could be more cost-effective than Reading Recovery in that it appears to produce similar results yet at less cost because of the fact that it is taught to a number of children at once rather than to individual children. Although neither intervention was shown to be any more effective than leaving children in the classroom this does not mean that the interventions are not effective. The results of the present study may be due to the limited number of children who were able to participate. Future research with larger samples of children of the same age and receiving the same amount of time in the relevant programmes per week will be needed to validate or invalidate the findings of the current study.

References

Adams, M. (1990*). Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press

Arrow, A. W., Chapman, J. W., & Greaney, K. T. (2015). Meeting the Needs of Beginning Readers through Differentiated Instruction. In *Excellence and Equity in Literacy Education* (pp. 171-193). Palgrave Macmillan UK.

Arrow, A. W., McLachlan, C. J., & Greaney, K. T. (2015). Teacher Knowledge Needed for Differentiated Early Reading Instruction. In *Excellence and Equity in Literacy Education* (pp. 194-213). Palgrave Macmillan UK.

Arrow, A. W., & Tunmer, W. E. (2012). Contemporary reading acquisition theory: The conceptual basis for differentiated reading instruction. *Contemporary debates in childhood education and development*, 241-249.

Berk, L & Winsler, A. (1995). Vygotsky: His life and works, Vygotsky's approach to development. In *Scaffolding children's learning: Vygotsky and early childhood learning*. Natl. Assoc for Educ. of Young Children. pp. 25–34

Blaiklock, K. E. (2004). The importance of letter knowledge in the relationship between phonological awareness and reading. *Journal of Research in Reading*, *27*(1), 36-57.

Blachman, B. A. (2000). Phonological awareness. In *Handbook of reading research*, Vol. *3*, (pp. 483-502). Mahwah, NJ: Lawrence Erlbaum Associates.

Castles, A., & Coltheart, M. (2004). Is there a causal link from phonological awareness to success in learning to read?. *Cognition*, *91*(1), 77-111.

Catts, H. W., & Kamhi, A. G. (2005). Defining reading disabilities. *Language and reading disabilities* (2nd ed.). Boston, America: Pearson

Chall, J. S. (1967). *The great debate*. McGraw-Hill.

Chapman, J.W. (2016). *Quick60 Literacy Research Project.* Research Report on the Predictive Abilities and Effectiveness of Assessment Tools for Monitoring Literacy Programmes in Primary Schools, Involving the Quick60 Programme. Institute of Education, Massey University, 5 February, 2016. Taken from: http://www.iversenpublishing.com/content.asp?syscmd=dl&ID=88AF22F0F644490E BE2BE9FD6134093A

Chapman, J. W., Greaney, K. T., & Prochnow, J. E. (2015). Literacy Performances of Young Adults in New Zealand: Outcomes of School-Based Literacy Instruction. In *Excellence and Equity in Literacy Education* (pp. 71-92). Palgrave Macmillan UK.

Chapman, J., Greaney, K., & Tunmer, W. (2007). How well is Reading Recovery really working in New Zealand?. *New Zealand Journal of Educational Studies*, *42*(1/2), 17.

Chapman, J. W., & Tunmer, W. E. (2016). Schwartz's response to Chapman and Tunmer's analysis of reading recovery data: Whose ideology and whose politics?. *Australian Journal of Learning Difficulties*, *21*(1), 59-67.

Chapman, J. W., Tunmer, W. E., & Prochnow, J. E. (2001). Does success in the Reading Recovery program depend on developing proficiency in phonological-processing skills? A longitudinal study in a whole language instructional context. *Scientific Studies of Reading*, *5*(2), 141-176.

Church, J. (2003). *Church report: The definition, diagnosis and treatment of children and youth with severe behaviour difficulties. Wellington: Ministry of Education*.

Clay, M. M. (1981). Concepts about print test. *The Reading Teacher*, *34*(4), 445-448.

Clay, M.M. (1985). *The Early Detection of Reading Difficulties (*3rd ed.). Auckland: Heinemann Publishers.

Clay, M. M. (1991). *Becoming literate: The construction of inner control*. Heinemann Educational Books.

Clay, M. M. (1992). A second chance to learn literacy. By different routes to common outcomes (The reading Recovery Programme). *International perspectives*, 69-89.

Clay, M. M. (1993). *An observation survey of early literacy achievement*. Heinemann, 361 Hanover St., Portsmouth, NH 03801-3912.

Clay, M. M. (2001). *Change over time in children's literacy development*. Heinemann Educational Books.

Clay, M. M. (2005a). Literacy lessons designed for individuals: Part one. Auckland, New Zealand: Heinemann.

Clay, M. M. (2005b). Literacy lessons designed for individuals: Part two. Auckland, New Zealand: Heinemann.

Collins, J. (2008). *Chomsky: A guide for the perplexed*. A&C Black.

Connor, C. M., Morrison, F. J., & Slominski, L. (2006). Preschool instruction and children's emergent literacy growth. *Journal of Educational Psychology*,*98*(4), 665.

Cook, B. G., Tankersley, M., Cook, L., & Landrum, T. J. (2008). Evidence-based practices in special education: Some practical considerations. Intervention in School and Clinic, 44, 69–75.

Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relation to reading experience and ability 10 years later. *Developmental psychology*, *33*(6), 934.

D'Agostino, J. V., & Harmey, S. J. (2016). An international meta-analysis of Reading Recovery. *Journal of Education for Students Placed at Risk (JESPAR)*, *21*(1), 29-46.

D'Agostino, J. V., & Murphy, J. A. (2004). A meta-analysis of Reading Recovery in United States schools. *Educational Evaluation and Policy Analysis*, *26*(1), 23-28.

Department for Education and Skills (DfES) (2006). *Independent Review of the Teaching of Early Reading.* Nottingham: DfES Publications. Taken from: http://www.teachernet.gov.uk/publications

Department of Education, Science and Training, (2005). *Teaching Reading.* Australian Government. National Inquiry into the teaching of reading, December 2005. Taken from: http://research.acer.edu.au/tll_misc/5/

Department of Education (2010). *The new conceptual framework for teaching reading: The "simple view of reading"*. Taken from: http://cdn.edalive.com/wpcontent/uploads/2011/04/The_new_conceptual_framew ork_for_teaching_reading   the_simple_view_of_reading.pdf

Doyle, M. A. (2013). Marie M. Clay's theoretical perspective: A literacy processing theory. *Theoretical models and processes of reading*, 636-656.

Dunn, Lloyd M., and Douglas M. Dunn. *The British picture vocabulary scale*. GL Assessment Limited, 2009.

Ehri, L. C. (2005). Development of sight word reading: Phases and findings.In M.J. Snowling & C. Hulmes (Eds.), *The science of reading: A handbook* (pp.135-580). Oxford, UK: Blackwell.

Elbaum, B., Vaughn, S., Tejero Hughes, M., & Watson Moody, S. (2000). How effective are one-to-one tutoring programs in reading for elementary students at risk for reading failure? A meta-analysis of the intervention research. *Journal of educational psychology*, *92*(4), 605.

Elley, W. B. (1992). *How in the World Do Students Read?* Hamburg: Germany International Association for the Evaluation of Educational Achievement

Gilmore, A., Croft, C., & Reid, N. A. (1981). *Burt Word Reading Test: Teachers Manual*. New Zealand Council for Educational Research.

Glynn, T., Bethune, N., Crooks, T., Ballard, K., & Smith, J. (1992). Reading Recovery in context: Implementation and outcome. *Educational Psychology*, *12*(3-4), 249-261.

Greaney, K. T. (2001). An investigation of teacher preferences for word identification strategies. *Australian Journal of Language and Literacy,* 24, 21-30.

Greaney, K. T. (2011). The Multiple Cues or" Searchlights" Word Reading Theory: Implications for Reading Recovery®. *Perspectives on language and literacy*, *37*(4), 15.

Greaney, K. & Arrow, A. (2010). Why the new national literacy standards won't close our literacy achievement gap. *New Zealand Journal of Teachers' Work*, *7*(1), 29-37.

Greaney, K., & Tunmer, W. E. (2010). The Literacy Learning Progressions and the Reading and Writing Standards: Some Critical Issues. *Kairaranga*,*11*(2), 23-27.

Greaney, K.T., Tunmer, W.E., & Chapman, J.W., (1997). Effects of rime-based orthographic analogy training on the word recognition skills of children with reading disability. *Journal of Educational Psychology, 89*, 645-651.

Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Literacy Research and Instruction*, *6*(4), 126-135.

Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and special education*, *7*(1), 6-10.

Hart, B., & Risley, T. (2003). The early catastrophe. *American Educator*,*27*(4), 6-9.

Hartley, M., (1999). *Levelling the Boxes and Books*. Unpublished Document. School of Education, University of Waikato.

Hattie, J. (2012) Visible Learning for Teachers: Maximizing Impact on Learning. London: Routledge.

Hoffman, J. V. (2009). In search of the "simple view" of reading comprehension. *Handbook of research on reading comprehension*, 54-66.

Hood, H. (2000). Right to read: An open letter to teachers. Palmerston North, New Zealand: Dunmore Press.

Iversen Publishing, (2016) Taken from: http://www.iversenpublishing.com/

Iversen, S., & Tunmer, W. E. (1993). Phonological processing skills and the Reading Recovery Program. *Journal of Educational Psychology*, *85*(1), 112.

Iversen, S., Tunmer, W. E., & Chapman, J. W. (2005). The effects of varying group size on the Reading Recovery approach to preventive early intervention. *Journal of Learning Disabilities*, *38*(5), 456-472.

Jesson, R., & Limbrick, L. (2014). Can gains from early literacy interventions be sustained? The case of Reading Recovery. *Journal of Research in Reading*, *37*(1), 102-117.

Juel, C. (1996). What makes literacy tutoring effective*? Reading Research Quarterly,* 31, 268-289

Kaatz-Sulgrove, M. L., Peck, S. M., & McLaughlin, T. F. (2002). The effects of code-and meaning-emphasis approaches in beginning reading for students with mild disabilities. *International Journal of Special Education*, *17*(1), 65-84

.

Lee, M. (2011). *Annual Monitoring of Reading Recovery: The data for 2011.* Wellington, New Zealand: Ministry of Education. Retrieved from: http://www.educationcounts.govt.nz/publications/series/1547/111098

Liberman, I. Y., & Liberman, A. M. (1990). Whole language vs. code emphasis: Underlying assumptions and their implications for reading instruction. *Annals of Dyslexia*, *40*(1), 51-76.

Lonigan, C. J. (2003). Development and promotion of emergent literacy skills in children at-risk of reading difficulties. *Preventing and remediating reading difficulties: Bringing science to scale*, 23-50.

Lovett, M.W., Lacerenza, L., Borden, S.L., Frijters, J.C., Steinbach, K.A, & De Palma, M. (2000). Components of effective remediation for developmental reading disabilities: Combining phonological and strategy-based instruction to improve outcomes. Journal of Educational Psychology, 92, 263-283.

Mash, E.J., & Wolfe, D.A. (2002). Abnormal child psychology. Belmont, CA: Wadsworth Thomson Learning

May, H., Gray, A., Sirinides, P., Goldsworthy, H., Armijo, M., Sam, C., ... & Tognatta, N. (2015). Year one results from the multisite randomized evaluation of the i3 scale-up of reading recovery. *American Educational Research Journal*, *52*(3), 547-581.

McDowall, S., Boyd, S., & Hodgen, E.& Vliet, T. V (2005). *Reading Recovery in New Zealand: Uptake, implementation, and outcomes, especially in relation to Maori and Pasifika students*, Wellington: New Zealand: New Zealand Council for Educational Research

McGee, L. M., Kim, H., Nelson, K. S., & Fried, M. D. (2015). Change over time in first graders' strategic use of information at point of difficulty in reading. *Reading Research Quarterly*, *50*(3), 263-291.

Ministry of Education. (1997). *Adult literacy in New Zealand: Results from the International AdultLiteracy Survey.* Wellington, New Zealand: Author.

Ministry of Education. (1999). *Literacy Experts Group: Report to the Secretary for Education.* Wellington, New Zealand. Author

Ministry of Education, (2003). Effective literacy practices in years 1 to 4. Wellington, New Zealand: Learning Media Limited.

Ministry of Education, (2007). *The New Zealand Curriculum*. Wellington, New Zealand: Learning Media Limited.

Ministry of Education, (2009). *Reading and writing standards for Years 1-8.* New Zealand: Learning Media Limited.

Ministry of Education, (2010). *The Literacy Learning Progressions: Meeting the Reading and Writing Demands of the Curriculum.* Wellington, NZ: Learning Media Ltd.

Ministry of Education, (2011). *Briefing to the incoming Minister*. Wellington, New Zealand: Author

Ministry of Education, (2014). *Annual monitoring of Reading Recovery: The data for 2014.* Wellington, New Zealand: Ministry of Education. Taken from: https://www.educationcounts.govt.nz/publications/series/1547/annual-monitoring-of-reading-recovery-2014-data

Ministry of Education, (2016). *National Standards Results, 2015.* Taken from: http://www.educationcounts.govt.nz/ data/assets/pdf_file/0009/148851/National -Standards-Achievement-Results-2015.pdf

Morris, D., Tyner, B., & Perney, J. (2000). Early Steps: Replicating the effects of a first-grade reading intervention program. *Journal of Educational Psychology*, *92*(4), 681.

Mullis, I.V.S. & Martin, M.O. (Eds.). (2011). Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College. Taken from: http://timssandpirls.bc.edu/pirls2011/downloads/P11_IR_FullBook.pdf

Nation, K., & Angell, P. (2006). Learning to read and learning to comprehend. *London Review of Education*, *4*(1), 77-87.

National Institute for Literacy, (2009). *Put Reading First: The Research Building Blocks for Teaching Children to Read*. Eunice Kennedy Shriver National Institute of Child Health and Human Development. Washington, DC: U.S. Government Printing Office. Taken from: https://www.nichd.nih.gov/publications/Pages/pubs_details.aspx?pubs_id=226

National Reading Panel (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institute for Child Health and Human Development. Taken from: https://www.nichd.nih.gov/publications/pubs/nrp/documents/report.pdf

Nelson Education, (2016). Taken from http://www.nelson.com/pmfamily/documents/PM_Benchmark_Brochure.pdf

New Zealand House of Representatives (2001). *Report of the Education and Science Committee on the inquiry into the teaching of reading in New Zealand.* Wellington, New Zealand: Author.

New Zealand House of Representatives (2008). *Inquiry into making the school system work for every child: Report of the Education and Science Committee.* Wellington, New Zealand: Author.

Nicholas, K., & Parkhill, F. (2014). Is Reading Recovery sustainable two to four years after discontinuation? *Education 3-13*, *42*(6), 663-672.

Nicholson, T. (1997). Closing the gap on reading failure: Social background, phonemic awareness, and learning to read. In B.A. Blachman (Ed.), *Foundations of reading acquisition and dyslexia: Implications for early intervention*, (pp. 381-407). Mahwah, NJ: Lawrence Erlbaum Associates.

Nicholson T. (1999). Literacy, family and society. In Thompson G. B., Nicholson T.(Eds.), *Learning to read: Beyond phonics and whole language* (pp. 1–22). New York:Teachers College Press.

Nicholson, T., (2002). The social and political contexts of reading: Contempory literacy policy in Aotearoa New Zealand *In P.Adams & H. Ryan (Eds.), Learning to read in Aotearoa New Zealand* (pp. 22-50). Palmerston North, New Zealand: Dunmore Press.

Nicholson, T. (2003). Risk factors in learning to read. In Barbara Foorman (Ed.) (2003). *Preventing and remediating reading difficulties: Bringing science to scale*, (pp. 165-193). Timonium, MD: York Press.

Nicholson, T. (2005). *At the cutting edge. The Importance of Phonemic Awareness in Learning to Read and Spell.* Wellington, New Zealand: NZCER Press.

Nicholson, T., & Gallienne, G. (1995). Struggletown meets middletown: Reading achievement levels among 13-year-old students in low and middle socioeconomic areas. *New Zealand Journal of Educational Studies*, *30*, 15-23.

Paratore, J. R., Cassano, C. M., & Schickedanz, J. A. (2011). Supporting early (and later) literacy development at home and at school. *Handbook of reading research*, *4*, 107-135.

Paris, S. G. (2005). Reinterpreting the development of reading skills. *Reading research quarterly*, *40*(2), 184-202.

Parkin, C., Parkin, C., & Pool, B. (2002). PROBE reading assessment. *New Zealand: Triune Initiatives*.

PIRLS 2011 Assessment. Copyright © 2011 International Association for the Evaluation of Educational Achievement (IEA). Publisher: TIMSS & PIRLS International Study Center, Lynch School of Education, Boston College. Taken from: http://timssandpirls.bc.edu/pirls2011/international-database.html

Pressley, M. (2006). *Reading instruction that works: The case for balanced teaching*. New

York: The Guildford Press.

Pressley, M., Duke, N. K., Gaskins, I. W., Fingeret, L., Halladay, J., Hilden, K., ... & Bogaert, L. R. (2009). Working with struggling readers: Why we must get beyond the simple view of reading and visions of how it might be done. *The handbook of school psychology*, 522-546.

Prochnow, J. E., Tunmer, W. E., & Arrow, A. W. (2015). Literate Cultural Capital and Matthew Effects in Reading Achievement. In *Excellence and Equity in Literacy Education* (pp. 145-167). Palgrave Macmillan UK.

Reading Recovery Council of North America. (2016). Taken from: http://readingrecovery.org/reading-recovery/teaching-children/observation-survey

Reynolds, M, & Wheldall, K. (2007). Reading Recovery 20 years down the track: Looking forward, looking back. *International Journal of Disability, Development and Education,* 54, 199-223

Reynolds, M., Wheldall, K., & Madelaine, A. (2010). Components of effective early reading interventions for young struggling readers. *Australian Journal of Learning Difficulties, 15,* 171-192

Robson, L. S., Shannon, H. S., Goldenhar, L. M., & Hale, A. R. (2001). Quasi-experimental and experimental designs: more powerful evaluation designs. *Institute for Work and Health. Guide to evaluating the effectiveness of strategies for preventing work injuries.* Canada: Department of Health and Human Services.

Rodriguez-Brown, F. (2011). Familiy Literacy. A current View of Research on Parents and Children Learning Together. In *L. Kamil, D. Pearson, E. Birr &P. Afflerbach (Eds.) Handbook of reading research*, Vol. *4*, (pp. 726-753). New York: Routledge.

Rose, J. (2006). *Independent revew of the teaching of early reading: Final report.* London: Department of Education and Skills.

Rowe, K., & National Inquiry into the Teaching of Literacy (Australia) (2005). *Teaching Reading.* Taken from: http://research.acer.edu.au/tll_misc/5

Ryder, J. F., Tunmer, W. E., & Greaney, K. T. (2008). Explicit instruction in phonemic awareness and phonemically based decoding skills as an intervention strategy for struggling readers in whole language classrooms. *Reading and Writing*, *21*(4), 349-369.

Santa, C. M., & Høien, T. (1999). An assessment of Early Steps: A program for early intervention of reading problems. *Reading research quarterly*, *34*(1), 54-79.

Schwartz, R. M. (2015). Ideology and Early Literacy Evidence: A Response to Chapman & Tunmer (2015). Taken from: https://www.researchgate.net/profile/Robert_Schwartz13/publication/282766129_I

deology_and_Early_Literacy_Evidence_Response_to_Chapman_Tunmer_2015/links/
561bb44d08ae044edbb38200.pdf

Schwartz, R. M., & Gallant, P. A. (2011). The role of self-monitoring in initial word-recognition learning. In *Multiple perspectives on difficulties in learning literacy and numeracy* (pp. 235-253). Springer Netherlands.

Shanahan, T., & Barr, R. (1995). Reading Recovery: An Independent Evaluation of the Effects of an Early Instructional Intervention for At-Risk Learners. *Reading Research Quarterly*, *30*(4), 958–996. http://doi.org/10.2307/748206

Slavin, R. E., Lake, C., Davis, S., & Madden, N. A. (2011). Effective programs for struggling readers: A best-evidence synthesis. *Educational Research Review*, *6*(1), 1-26.

Smith, F. (1979). *Reading without nonsense.* New York, NY: Teachers College Press.

Smith, J. W., & Elley, W. B. (1995). *Learning to read in New Zealand*. Richard C. Owen Publishers.

Smith, J. W., & Elley, W. B. (1996). Making sense of nonsense. *New Zealand Journal of Educational Studies 31*: 85-89.

Smith, J. W. A., & Elley, W. B. (1997). How children learn to read: Insights from the New Zealand experience. Auckland, New Zealand: Longman.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. *Washington, DC: National Academy Press*

Snow, C. E., & Juel, C. (2005). Teaching children to read: What do we know about how to do it?. In M.J. Snowling & C. Hulmes (Eds.), *The science of reading: A handbook* (pp.135-580). Oxford, UK: Blackwell

Sparks, R. L., Patton, J., & Murdoch, A. (2014). Early reading success and its relationship to reading achievement and reading volume: replication of '10 years later'. *Reading and Writing*, *27*(1), 189-211.

Spear-Swerling, L., & Sternberg, R. J. (1994). The Road Not Taken: An Integrative Theoretical Model of Reading Disability. *Journal of learning disabilities*, *27*(2), 91-103.

Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading research quarterly*, 360-407.

Stuart, M., Stainthorp, R., & Snowling, M. (2008). Literacy as a complex activity: Deconstructing the simple view of reading. *Literacy*, *42*(2), 59-66.

Thyer, B. A. (2012). Quasi-experimental research designs. New York: Oxford University Press.

Tiruchittampalam, S. (2014). *School years, summer holidays and the reading achievement gap.* (Master's thesis, Massey University, Alabany, New Zealand). Taken from: http://mro.massey.ac.nz/bitstream/handle/10179/6521/02_whole.pdf?sequence=2 &isAllowed=y

Torgesen, J. K. (1998). Catch them before they fall. *American educator*, *22*, 32-41.

Torgesen, 2000 Joseph K. Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research & Practice* 15.1 (2000): 55-64.

Torgesen, J.K., Alexander, A.W., Wagner, R.K., Rashotte, C.A., Voeller, K.K.S, & Conway, T. (2001). Intensive remedial instruction for children with severe reading disabilities: Immediate and long term outcomes from two instructional approaches. *Journal of Learning Disabilities, 34*, 33-58.

Tse, L., & Nicholson, T. (2015). The effect of phonics-enhanced Big Book reading on the language and literacy skills of 6-year-old pupils of different reading ability attending lower SES schools. *Frontiers in the Acquisition of Literacy*, 45.

Tunmer, W. E., & Chapman, J. W. (2002). The relation of beginning readers' reported word identification strategies to reading achievement, reading-related skills, and academic self-perceptions. *Reading and Writing*, *15*(3-4), 341-358.

Tunmer, W.E., & Chapman, J.W. (2003). The Reading Recovery approach to Preventive early intervention: As good as it gets? *Reading Psychology*, 24, 337-360.

Tunmer, W. E., & Chapman, J. W. (2012). The simple view of reading redux vocabulary knowledge and the independent components hypothesis. *Journal of learning disabilities*, *45*(5), 453-466.

Tunmer, W. E., Chapman, J. W., Greaney, K. T., Prochnow, J. E., & Arrow, A. W. (2013). Why the New Zealand National Literacy Strategy has failed and what can be done about it: Evidence from the Progress in International Reading Literacy Study (PIRLS) 2011 and Reading Recovery monitoring reports. *Australian Journal of Learning Difficulties*, *18*(2), 139-180

Tunmer, W. E., Chapman, J. W., & Prochnow, J. E. (2003). Preventing negative Matthew effects in at-risk readers: A retrospective study. *Preventing and remediating reading difficulties: Bringing science to scale*, 121-163.

Tunmer, W. E., Chapman, J. W., & Prochnow, J. E. (2004). Why the Reading Achievement Gap in New Zealand Won't Go Away: Evidence from the PIRLS 2001 International Study of Reading Achievement. *New Zealand Journal of Educational Studies*.

Tunmer, W. E., Chapman, J. W., & Prochnow, J. E. (2006). Literate cultural capital at school entry predicts later reading achievement: A seven year longitudinal study. *New*

Zealand Journal of Educational Studies, *41*(2), 183.

Tunmer, W.E., & Greaney, K.T., (2008). Reading intervention research: An integrative framework. In G. Reid, A. Fawcett, F. Manis & L. Seigel (Eds.), *The sage handbook of dyslexia* (pp.241-267). London: Sage

Tunmer, W., & Greaney, K. (2010). Defining dyslexia. *Journal of learning Disabilities*, *43*(3), 229-243.

Tunmer, W. E., Greaney, K. T., & Prochnow, J. E. (2015). Pedagogical Constructivism in New Zealand Literacy Education: A Flawed Approach to Teaching Reading. In *Excellence and Equity in Literacy Education* (pp. 121-144). Palgrave Macmillan UK.

Tunmer, W. E., & Nicholson, T. (2011). The development and teaching of word recognition skill. In *L. Kamil, D. Pearson, E. Birr &P. Afflerbach (Eds.) Handbook of reading research, Vol. 4,* (pp.405-431). New York: Routledge

Tunmer, W. E., & Prochnow, J. E. (2009). Cultural relativism and literacy education: Explicit teaching based on specific learning needs is not deficit theory. *The politics of conformity in New Zealand*, 154-190.

Tunmer, W. E., Prochnow, J. E., Greaney, K. T., & Chapman, J. W. (2007). What's wrong with new zealand's national literacy strategy. *Reading across international boundaries: History, policy, and politics*, 19.

US Department of Education, Institute of Education Sciences, What Works Clearinghouse. (2013, July). *Beginning Reading Intervention Report: Reading Recovery.* Taken from: http://ies.ed.gov/ncee/wwc/

Vellutino, F. R., Scanlon, D. M., Sipay, E. R., Small, S. G., Pratt, A., Chen, R., & Denckla, M. B. (1996). Cognitive profiles of difficult-to-remediate and readily remediated poor readers: Early intervention as a vehicle for distinguishing between cognitive and experiential deficits as basic causes of specific reading disability. *Journal of Educational Psychology*, *88*(4), 601.

Wadsworth, B. J. (1979). Piaget's theory of cognitive development: an introduction for students of psychology and education. New York: Longman.

What Works Clearinghouse. (2007*). Topic report: Beginning reading*. U.S. Department of Education, Institute of Education Sciences.

What Works Clearinghouse. (2008*). Beginning reading intervention report: Reading Recovery*. U.S. Department of Education, Institute of Education Sciences.

What Works Clearinghouse. (2014). *WWC review of the report "Evaluation of the i3 scale-up of Reading Recovery year one report*, 2011-12.U.S. Department of Education, Institute of Education Sciences.

Whitehurst, G. J., & Lonigan, C. J. (2001). Emergent literacy: Development from pre-readers to readers. In S.B. Neuman & D.K. Dickinson (Eds.), *Handbook of early literacy research.* (pp. 11-29). New York: Guilford Press.

Zimmerman, S. S., Rodriguez, M. C., Rewey, K. L., & Heidemann, S. L. (2008). The Impact of an Early Literacy Initiative on the Long Term Academic Success of Diverse Students. *Journal Of Education For Students Placed At Risk,* 13(4), 452-481. doi:10.1080/10824660802427744

Appendices

Appendix A: Quick 60 Spelling Test

Checking on the Student's Ability
to Spell Words

A spelling task is the best assessment of how well your students can hear and record the phonemes (sounds) in words and ultimately spell words with consistent sound symbol relationships.

Instructions for Administering the Task
You do not necessarily need to administer this task to the students individually. You do need to make sure that if you are administering the task to a group, the students are not in a position to copy another's work.

Invite the student(s) to sit beside you and put them at ease.

Introduce the Task
Give each student a copy of the response sheet and point to the alphabet letters.
Say: *You can use these alphabet letters while you are doing this task if you need to.*
Give the students time to look at the alphabet letters.
Say: *I'm going to say a word and then say it again in a sentence. Then I'm going to say the word again. I want you to listen for the sounds in the word and then write it on the line. Use the alphabet letters if you know the sound but can't remember how to write the letter. Even if you think you can't spell the word, I want you to try it. Write down as much of the word as you can. Let's practise with this one.*

Practise the Task
Say: *The word is fat. My dog is too fat. Fat. Write fat.*

Administer the Task
Read the sentences to the student(s).
Go slowly giving the student(s) time to think and write.

Give general praise as appropriate, for example *nice try*, *good job*, *well done*, but do not give the student(s) any help or specific corrective feedback.
If a student fails to write anything, draw a line through that space so the student will have to write the next word on the line below.

If the student fails to respond –
Say: *Okay let's try another one.*
Proceed with the next sentence.
If the student(s) fails to write anything for four consecutive words, terminate the task for that student(s).

Score the Student's Responses
If you wish to keep a numerical score to show progress pre and post the Quick60 programme, you may do this in two ways.

The first procedure is simply to total the number of correct spellings.

In the second procedure, each item is scored according to the following scale:

Response	Score
Correct conventional spelling	4
Unconventional spelling – that is two or more letters capturing all of the phonemes e.g. *kik* for kick, *fil* for fill, *met* for meat, *spas* for space	3
More than one phoneme, but not all phonemes represented. The phonemes must be represented with phonetically related or conventional letters e.g. *snl* for snail	2
The initial phoneme is represented by the correct letter or with a phonetically related letter and followed by a random string of letters or nothing at all e.g. *tvps* for truck, *f* for fat A single letter response that is appropriate but not the initial phoneme e.g. *t* for wet	1
No response or a random string of letters	0

Using points to score gives a truer picture of the student's ability to hear and record the sounds in words. Sometimes, students can segment some but not all phonemes. Scoring points lets you see which sounds the student can or cannot record and which in position in the word these sounds occur.

<u>Apply the Results</u>
For Entry to the Programme -
Check to see which words the student can spell correctly.
Check to see which phonemes the student could record correctly.
Choose the level in the Quick60 programme that best reflects the student's level of attainment.

For Ongoing Monitoring –
Check the student's ability to spell words that contain the phonic elements that are being taught.

For Exiting the Programme –
Ensure that the student has retained earlier taught skills and is using them when spelling unfamiliar. Note any skills that need to be reinforced by the classroom teacher.

Spelling Check Sheet 1

Name: Date:

a b c d e f g h i j k l m n o p q r s t u v w x y z

1	
2	
3	
4	
5	
6	
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23	
24	

Spelling Check Sheet 2

Name: Date:

	Target word	Sentence	Score
1	fat	My dog is too **fat**.	
2	fill	Please **fill** my glass.	
3	pop	Don't **pop** the balloon.	
4	lump	He has a **lump** on his head.	
5	wet	Rain makes me **wet**.	
6	kick	She likes to **kick** the ball.	
7	ring	The school bell is going to **ring**.	
8	shut	The door is **shut**.	
9	chop	He is going to **chop** the wood.	
10	gate	Please close the **gate**.	
11	side	He painted the **side** of his house.	
12	hole	The rabbit went down the **hole**.	
13	June	**June** is a month of the year.	
14	plank	The pirate walked the **plank**.	
15	truck	The **truck** went into the tunnel.	
16	space	The rocket is in **space**.	
17	baby	The **baby** was born yesterday.	
18	hay	Cows and horses eat **hay**.	
19	tree	This **tree** has apples on it.	
20	snail	A **snail** has a shell.	
21	snow	Come and play in the **snow**.	
22	boy	A big **boy** was on the skate ramp.	
23	storm	There was heavy rain in the **storm**.	
24	work	I **work** hard.	

Appendix B: Quick60 PseudoWord Test

Checking on the Student's Ability to Decode Words

A pseudo or nonsense word-naming task is the best assessment of how well your students can decode unknown words. There is no chance that your students will know any of these words as sight words, because they haven't seen them before. There is also no chance that students can use the meaning to help them decode because the words are meaningless. It is as if they were trying to read a foreign language for the first time.

Instructions for Administering the Task
You have to administer this task to the students individually. Invite a student to sit beside you and put him or her at ease.

Set the Scene
Say: *I want you to pretend that you're heading out in a spaceship to visit another planet. You've been chosen for this mission and you've decided to learn the language of the people who live there so you can speak to them.*

I have a list of the words that they use often, but you don't know them. You can only read them if you sound them out. Remember, don't try to make them into the words that we speak. Here's the list of words. Let's try this one together.

Read the Practice Words
Put the student response sheet in front of the student. Cover all the words with a sheet of paper except the two practice words.

Point to the first practice word, *ez*, and encourage the student to read the word by sounding it out. If the student says the word correctly, praise him or her.
Say: *That was really good. You know how to look at the letters, work out what sounds they make and then say the word. You'll be talking their language in no time at all.*

If the student fails to respond correctly, or fails to respond at all after five seconds, demonstrate the task.

Say: *This letter makes an e sound like the beginning of egg and this letter is a z. If I blend the two sounds together I get ez. Now I want you to try another one. Remember, you have to use what you know about the sounds of the letters in the word, and blend them together to say the word.*

Point to the second practice word, *saf*.
Say: *Now try this word and then we'll be ready to practise lots of words so that you'll be ready to talk to the far-away-planet people. Remember, this is not one of our words. Look at it, and then blend the sounds together to say it.*

Praise the student for a correct response.

If the student responds incorrectly or fails to respond after five seconds, demonstrate how to read the word.
Say: *This letter makes an s sound like the beginning of Sunday. This letter is an a and it has the same sound as the a in apple. The last letter is an f like at the beginning of fish. If I blend the three sounds together I get saf.*

Administer the Task
Slide the sheet of paper down to uncover the first line of words.
Invite the student to read the words.
Say: *I want you to read these words. Don't worry if you think you're wrong because, as I told you, they are not real words like the ones we speak and the way you're saying them could be right. When you've read one line, I'll uncover the next line for you to read.*

Give general praise as appropriate, for example *nice try, good job, well done,* but do not give specific corrective feedback unless the student reads the words in syllables, for example *juh-i-tuh* for *jit*.
Say: *That's right you got the sounds right, but you need to blend them together to read the word. See if you can say the word with the sounds blended together.*

Proceed through the list of words moving the paper down as the student completes a line. Mark the response column of the score sheet √ if the student responds correctly.
If the student responds incorrectly, write what the student says in the response column.

Continue until the student fails to respond correctly to three consecutive words in a word group. Finish the word group recording the student's actual response.

Remove the sheet of paper and ask the student to scan the page for any other words that they can read. Mark any words correctly read √ in the response column of the score sheet.

Score the Student's Responses

If you wish to keep a numerical score to show progress pre and post the Quick60 Reading Programme, you may do this in two ways.

The first procedure is simply to total the number of correct pronunciations.

In the second procedure, each phoneme in a word, correctly pronounced is scored. The number of phonemes in each word is shown next to the word on the score sheet. Score one point for each phoneme in the word correctly pronounced. For example, if a student reads *jit* correctly they receive 3 points. If the student says *jet,* they are awarded 2 points one for *j* and one for *t*. If the student says *jab, hid* or *bat* they are awarded 1 point for the one phoneme correctly identified.

The points method of scoring gives a truer picture of the student's ability to segment and blend phonemes. Sometimes, students can segment phonemes but do not blend them together entirely correctly. Scoring points may give you a differentiation between a student's ability to segment and to blend phonemes.

Apply the Results

For Entry to the Programme –
Check the words where the student made three consecutive incorrect responses. Start the student in the Quick60 book that teaches those skills.

For Ongoing Monitoring –
Check the student's responses to ensure that they are applying what has been taught. Note any skills that need to be retaught.

For Exiting the Programme –
Ensure that the student has retained earlier taught skills and is applying them to unfamiliar words. Note any skills that need to be reinforced by the classroom teacher.

Pseudo Words

ez   saf

pag	jit	wob	dut	med
vock	ning	ish	chon	blesh
clim	flob	plav	clabe	shime
voze	fute	brop	crake	grune
trine	slume	sposh	stad	swep
sy	veny	keet	fleach	dail
zay	woaf	yend	chust	brenk
brimp	harf	sherg	worb	sturp
clow	zoin	spound	moy	rowd

Pseudo Word Check Sheet

Name: Date:

Word		Response	Word		Response
pag	(3)		sposh	(4)	
jit	(3)		stad	(4)	
wob	(3)		swep	(4)	
dut	(3)		sy	(2)	
med	(3)		veny	(4)	
vock	(3)		keet	(3)	
ning	(3)		fleach	(4)	
ish	(2)		dail	(3)	
chon	(3)		zay	(2)	
blesh	(4)		woaf	(3)	
clim	(4)		yend	(4)	
flob	(4)		chust	(4)	
plav	(4)		brenk	(5)	
clabe	(4)		brimp	(5)	
shime	(3)		harf	(3)	
voze	(3)		sherg	(3)	
fute	(3)		worb	(3)	
brop	(4)		Sturp	(4)	
crake	(4)		clow	(3)	
grune	(4)		zoin	(3)	
trine	(4)		spound	(5)	
slume	(4)		moy	(2)	
			rowd	(3)	

Appendix C: Levelling the Boxes and Books

LEVELLING THE BOXES AND BOOKS

The Colour Wheel used in the new Ready to Read series should be used.
A Master Chart with the colour code key and Reading Levels should be displayed wherever the Readers are housed.

COLOUR WHEEL KEY

Reading Level	Age	Reading Recovery	Colour Code	Ready to Read Series	R/R Series	Old Dept Series	The PM Library	Storybox	Sunshine	Foundations
5 – 5½	5	0 / 1 / 2	Magenta	Magenta	Emergent	Early Reading	Alphabet Book Starters 1&2	Read together / Get ready / Ready Set Go A/B	Early Emergent & Early Fiction	**Red top** 1 Red ball 2 Orange ball 3 Yellow ball 4 Green ball 5 Blue ball
	to	3 / 4 / 5	Red	Red	Red	Red	Red Level	Ready Set Go B	L E V E L	**Yellow top** 6 Red ball 7 Orange 8 Yellow 9 Green 10 Blue 11 Indigo 12 Violet
		6 / 7 / 8	Yellow	Yellow	Yellow	Yellow	Yellow Level	Ready Set Go C	O N E	
5½ – 6	6	9 / 10 / 11	Dark Blue	Dark Blue	Dark Blue	Blue	Blue Level	Ready Set Go D		
		12 / 13 / 14	Green	Green	Green	Green	Green Level	Stage 2 (Brown)	Level 2	
6 – 6½	6	15 / 16	Orange	Orange	Pitas Birthday / Big Red	Hungry Lambs	Orange	Stage 3 (Crimson)	Level 3	**Blue top** 13 Red 14 Orange 15 Yellow 16 Green 17 Blue
6½ – 7	to / 7	17 / 18	Light Blue/Turquoise	Light Blue/Turquoise	Horrakapotchkin	Boat Day	Turquoise	Stage 4 (Olive Green)	Level 4	
7 – 7½	7	19 / 20	Purple	Purple	Giant soup - Crinkum Crankum	Donkeys Egg	Purple	Stage 5 (Turquoise)	Level 5	
7½ – 8	to / 8	21 / 22	Dark Yellow/Gold	Dark Yellow/Gold	Night is a Blanket	Sweet Porridge	Gold	Stage 6 (Purple)	Level 6	
8 – 8½	8	23 / 24	Emerald	Emerald	Journals Pt 1	Stars in the Sky	Silver	Stage 7 (Orange)	Level 7	
8½ – 9	to / 9	25 / 26	White	White		Sliding and Flying	Chapter Books	Story Chest Stages 8-9 / Sunshine Levels	Level 8 - 9	
9 to 10					Journals Pt 1 - 3			Stages 10 & 11 / Sunshine leads 10-11	Level 10 - 11	
10 to 11					Journals Pt 4			Stages 12 & 13	Series Level 10+ Literacy Links (Gold+) Wonder World Chapter books, Banana Books (yellow/blue), Tui Turbos, Jets, Super Jets, Simon & Schuster Storybooks, Junior Puffins, Zappers, Corgis	

JUNIOR JOURNALS — SCHOOL JOURNALS — STORY LIBRARY

Appendix D: Child, Parent, and School Information and Consent Sheets

A comparison study of Quick60 and Reading Recovery Instruction

Assent and Consent form – Pupil

June 14, 2016

Dear children,

Hello, my name is Bridget MacDougall. I go to Massey University and I am doing a project about how schools teach children to read. I am asking you to help because I want to learn more about how your school teaches you to read. What I learn from this project may help other children learn to be good readers.

If you agree to be in the project, I will ask you to do some reading tests with me. You will show me the letters and sounds you know, as well as some words that you can read. We will do the tests over 2 days and take breaks in between. You can ask for a break at anytime you feel tired. If you feel worried or upset you can tell me and we will stop the tests and go back to your classroom. You can ask me questions at anytime. I will not tell anybody your name or your reading levels in my report and you can ask to talk to me after all the testing is done to talk about what I have learnt.

I agree to participate in the project:

_____(child's name)

Date: _____

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MASSEY UNIVERSITY
INSTITUTE OF EDUCATION
TE KURA O TE MATĀURANGA

A comparison study of Quick60 and Reading Recovery Instruction

Information Sheet – Parent/Caregivers

8 April 2016

Dear Parent/Caregivers and Families,

My name is Bridget MacDougall. I am a postgraduate student completing a master's thesis in Educational Psychology at Massey University. I wish to invite your child to assist with a research project about the effectiveness of the Quick60 Literacy Programme, particularly in comparison to the Reading Recovery Programme. Please contact me if you wish to discuss any aspects of the study.

Previous research has shown that both programmes are effective but this is the first time that both have been compared. The value of this study is that it will show whether it is more effective for children to be in one programme rather than the other. This will be of value to teachers and principals in making decisions about whether or not to invest in the programme for children who need additional instruction in reading.

The project involves assessing students' reading levels before and after they participate in the reading intervention. Additionally, some children who do not receive any additional instruction will be assessed. I will then compare the improvement in scores of all children who have participated. I am predicting that both programmes will be equally effective and the aim of this research is to see if this is true.

Please contact me if you wish to discuss any aspects of this study. Thank you very much for considering this request.

Project Procedures

In your school, your child may have been selected to receive additional reading instruction in either the Quick60 or Reading Recovery programme. The study will involve up to 8 children from your school. Testing will take place at beginning and and end term 2. The testing will take about 45 minutes for each pupil at each time point. The tests may be spread over two or three sessions, with no session longer than 30 minutes and to be completed over two days. Assessment measures will include: a list of high frequency words, a list of made-up words to assess basic decoding skills, the Burt Word Reading Test, a graded book reading test, and the British Receptive Vocabulary Scale.

Participation Rights

You and your child are under no obligation to accept this invitation. If you and your child decide to participate, you have the right to:

- decline to answer any particular question
- withdraw from the study at any time
- ask any questions about the study at any time during participation
- provide information on the understanding that their name will not be used unless permission is given to the researcher
- request a summary of the project findings when it is concluded

Data Management

The written thesis will not identify any individual or school. A full report of the project will be contained in my thesis available through Massey University library. A summary written report will be made available to the school and to parents. You may also choose to meet with the researcher to discuss the results.

Participant test scores will not be shared with anyone except the researcher and the researcher's supervisors. The data will be collated and no individual student or school data will be identifiable. Data and Consent Forms will be stored separately in a locked filing cabinet for 5 years. At the end of the study all data and consent forms will be stored at the University with the supervisor in a locked filing cabinet. The researcher's supervisors will confidentially dispose of the data and consent forms after five years by shredding.

Project Contacts

If you have any questions or require further information, please feel free to contact me or my supervisors:

Researcher:
Bridget MacDougall
bridgetmd@hotmail.com
(09) 021451808

Main Supervisor:
Dr Tom Nicholson
Professor of Literacy Education
Institute of Education
Massey University – Albany
t.nicholson@massey.ac.nz
414 0800 extension 43519

Co-Supervisor:
Dr. Jeanette Berman
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Mob: 021 1085 923

Ethical Approval

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application __/__. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 ext 43317, email: humanethicsnorth@massey.ac.nz

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A comparison study of Quick60 and Reading Recovery Instruction

Participant Consent Form – Parent/Caregiver

As parent or legal guardian, I agree to allow _____(child's name) to become a participant in the research study described in the information letter.

Child's Date of Birth: _____

Child's Ethnicity: (e.g. European, Maori, Pacifika, Asian) _____

Parent or Legal Guardian's Signature: _____

Parent or Legal Guardian's name – printed: _____

Date: _____

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A comparison study of Quick60 and Reading Recovery Instruction

Information Sheet - Principal and Board of Trustees

7 June, 2016

Dear Principal,

My name is Bridget MacDougall. I am a postgraduate student completing a master's thesis in Educational Psychology at Massey University. I wish to invite your school to assist with a research project about the effectiveness of the Quick60 Literacy Programme, particularly in comparison to the Reading Recovery Programme. The project involves assessment of students' reading levels before and after they participate in the reading intervention and comparing the differences in scores of children who have been in the programmes. Previous research has shown that both programmes are effective but this is the first time that both have been compared. The value of this study is that it will show whether it is more effective for children to be in one programme rather than the other. This will be of value to teachers and principals in making decisions about whether or not to invest in the programme for children who need additional instruction in reading. Please contact me if you wish to discuss any aspects of the study. Thank you very much for considering this request.

Project Procedures

The study will involve up to 8 children from your school. Children will be six or seven years of age and enrolled to receive additional reading tuition in Quick 60 or Reading Recovery. Some children who will not receive any additional reading instruction will participate in the research. Assessment will take place beginning and end of term 2. The assessments will take about 45 minutes for each pupil at each time point. The assessments will be spread over two or three sessions. Assessment measures will include: Running Records, Pseudo-Word decoding test, Burt Word Reading test and the British Picture Vocabulary Scale II.

Participation Rights

Your school is under no obligation to accept this invitation. If students from your school decide to participate, they have the right to:

- decline to answer any particular question
- withdraw from the study at any time
- ask any questions about the study at any time during participation

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- provide information on the understanding that their name will not be used unless permission is given to the researcher
- request a summary of the project findings when it is concluded

Data Management

The written thesis will not identify any individual or school. A full report of the project will be contained in my thesis available through Massey University library. A summary report will be made available to the school and to parents.

Participant test scores will not be shared with anyone except the researcher and the researcher's supervisors. The data will be collated and no individual student or school data will be identifiable. Data and Consent Forms will be stored separately in a locked filing cabinet for 5 years. At the end of the study all data and consent forms will be stored at the University with the supervisor in a locked filing cabinet. The researcher's supervisors will confidentially dispose of the data and consent forms after five years by shredding.

Project Contacts

If you have any questions or require further information, please feel free to contact me or my supervisors:

Researcher:
Bridget MacDougall
bridgetmd@hotmail.com
(09) 021451808

Main Supervisor:	**Co-Supervisor:**
Dr Tom Nicholson	Dr Jeanette Berman
Professor of Literacy Education	Senior Lecturer Ed. Psychology
Institute of Education	Institute of Education
Massey University – Albany	Albany, Auckland
t.nicholson@massey.ac.nz	J.Berman@massey.ac.nz
414 0800 extension 43519	+64 (09) 414 0800 ext. 43523
Mob: 021 1085 923	

Ethical Approval

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application __/__. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Chair, Massey University Human

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Ethics Committee: Northern, telephone 09 414 0800 ext 43317, email:
humanethicsnorth@massey.ac.nz

A comparison study of Quick60 and Reading Recovery Instruction

Participant Consent Form – School

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time. I agree to participate in this study under the conditions set out in the Information sheet.

Signature (Principal): _____

Full Name (printed): _____

School: _____

Date: _____

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Appendix E: Quick60 Lesson Plan 12.2 *Snowy Weather*

Snowy Weather

Level: 12.2   Word Count: 158

Quick Quiz	Reading: *then, how, there, down, water* Spelling: *then, how, there, down, water*
New Word	long
Quick Read	Workers on My Street (11.3) A Run to the Bay (11.4)
Quick Check	Toads (12.1)
Quick Write	*Look at this male toad soaking in the water.*
New Skill	ow vowel digraph
New Book	Snowy Weather

Quick Quiz

Builds fluency in reading and spelling words in isolation

- Use the following word cards: *then, how, there, down, water.*

- Hold the cards up one at a time in quick succession. The student who says the word right first holds it. Tell the students the word if no one recognizes it quickly. Go through the unknown words again until you have none left. The student with the most cards takes a turn at being the teacher and holds the cards up again.

- Dictate the following words for the students to write: *then, how, there, down, water.* If students are having difficulty with any word, show them the card so that they can copy the word.

New Word

Introduces a new high-frequency word into the reading and writing vocabulary

- Tell the students that now they are going to learn a new word – *long*
- Hold up the *long* word card for the students to see.
- Have them read the word together.
- Have the students write *long* in the air with their fingers while still looking at the card.
- Have them write *long* on the floor or table with their fingers.
- Have them write *long* three times. Encourage them to write without looking at the card. Allow them to check if they need to.

Quick Read

Builds reading fluency, vocabulary and comprehension on connected text

- Give each student a copy of the following books: *Workers in My Street* and *A Run to the Bay*.
- Have the students read the books independently.
- Move around each student, listening for fluent reading.
- Demonstrate and assist as required.
- Have students who finish first reread the books to different partners.

Quick Check

Monitors oral reading and checks on vocabulary and comprehension strategies

- Give each student a copy of the book *Toads*.
- Work with one student while the others follow the text silently.
- Remind the students before reading that you are not going to help as you want to see what they can do by themselves. Remind the students following along not to call out if the reader makes a mistake.
- Use the *Toads* sheet to circle the words that the student reads incorrectly.
- If the student stops at an unknown word, say: *You try it*. If the student still cannot read the word, ask a volunteer to tell him/her the word.
- If the student reads a word or words incorrectly, say nothing.
- When the student has finished reading, ask the other students what the reader did that was good.
- Look at the sheet to see what kind of mistakes the student made.
- Content word mistakes – brown. Choose one, go back to that page, discuss the photo and have all the students read the page together.
- Previously taught high-frequency word mistakes – pink. Add them to the words to be read in the Quick Quiz the following day.
- Decodable word mistakes – green. Choose one and quickly review the phonic element. Follow the new-skill sequence from the appropriate lesson.

- Check comprehension by asking these questions:

Literal

Why is it sometimes hard to see toads?

Why do toads go in the water?

What do male toads do in the mating season?

Where do female toads lay their eggs?

Inferential

What are the main facts in this book?

What is the same about toads and frogs?

Which photo do you like the best? Why?

What other animals do you know where the young doesn't look like the adult?

- Record the number of correct and partially correct answers on the Data Point Sheet.

Quick Write

Builds writing and spelling strategies

- Dictate the following sentence for the students to write.
  Look at this male toad soaking in the water.

- Remind the students that they know how to spell *look, at, this, in, water* and *the.*
- Remind them that they know how to listen for the sounds in short words like *male* and *toad*. Remind them that these words have more letters than sounds and that they know the letter combinations that they need to write.
- Revise adding *ing* to the end of words. Say *soak* and invite a volunteer to spell it for you to write on the board. Write *soak*.
- Remind the students that they know the letters that make *ing* like on the end of *going*. Tell them that they do not have to make any changes to the end of *soak* before adding the *ing* ending.
- Remind the students to remember their capital letter and punctuation.
- Dictate the sentence again and invite the students to start writing.
- Work with individual students as necessary.

- If the students had trouble with *look, at, this, in, water* or *the*, provide the correct spelling and have the students practise writing the word five times. Add them to the Quick Quiz words for the next lesson.
- If the students have trouble with *male* or *toad* revise the appropriate spelling pattern.

New Skill

Teaches new phonic skills explicitly and systematically

You may wish to use the Vocabulary and Spelling Card

Crow to introduce or reinforce this skill.

- Write the letters *ow* on the board. Explain to the students that these letters make the long / o / sound like *oa* and the *o* consonant and silent e pattern that they learned before.

- Write *rode, road* and *rowed* on the board. Invite the students to read the words. Discuss the fact that the words sound the same, are spelled differently and have different meanings.
- Say *low*. Ask the students to listen for the long / o / sound as you say the word again.
- Write *low* on the board.
- Invite a volunteer to circle the letters that make the long / o / sound.
- Say *mow*. Ask the students to listen for the long / o / sound as you say the word *mow* again.
- Write *mow* on the board.
- Invite a volunteer to circle the letters that make the long / o / sound.
- Say: *I'm going to change the first letter in mow to make a new word.*
- Write the following words on the board and have the students read them as you write: *row, sow, tow.*
- Write *bl__, cr__, fl__, gl__, gr__, sh__, sl__, sn__, st__*, on the board.
- Invite volunteers to fill in a group of letters and read the word they have made.
- Explain to the students that when they can recognize word families like these they will be able to read and write lots of words.

New Book

Provides for comprehension strategies, vocabulary instruction and practice for new phonic skills on connected text

- Give each student a copy of the book *Snowy Weather*.
- Read the title to the students.
- Set the purpose for reading by saying: *You are going to read this book to find out some things that happen when it is snowing.*
- Discuss the cover photo. Tell the students that people have to be careful when they drive cars in the snow. People also have to dress in warm clothes if they are going out in the snow.
- Have the students turn to the title page and look at the photo. What more can they say about what can happen in snowy weather from looking at this photo?
- Take a picture walk discussing each photo in the book.
- Read the labels to the students and discuss them further if the students are not familiar with the vocabulary.
- To ensure understanding say things such as: *There are different names for different kinds of snowy weather. Flurries are like snow showers. When you have rain showers, it isn't raining all the time. The rain stops and starts. It's the same with a snow flurry. The snow doesn't stay on the ground when there are flurries because it doesn't snow long enough for the snow to build up. Gale-force winds blow and it snows when there is a blizzard. Blizzards can be very dangerous. People can get lost in blizzards because sometimes they can't see where they are going. Trucks that move the snow off the road are called snowploughs. These trucks often spread sand and salt on the road to make the road safer.*
- Discuss the index with the students. Which page would they go to, to find out about snowdrifts?

- Tell the students that there are some words in this book that have *ow* in them. They should look for the words with *ow* to help them as they read. Point out that *snowplough* has two *ow* letter combinations, but only the first has the long / *o* / sound.
- Tell them also that the new word *long* that they learned earlier in the lesson is in this book. Knowing this word will help them with their reading. Hold up the *long* word card to remind students.
- Invite the students to read the title again and open their books to page 2.
- Have the students read the book aloud independently.
- Move around the group listening and helping individual students as necessary.

- Check comprehension by asking the students to retell the main points.
- Have students turn to page 2 and find and read the sentences with *snow* in them.
- Have the students find the compound word with *snow* in it on page 6. They should find *snowstorm*.
- Have the students find the compound word with *snow* in it on page 8. They should find *snowdrifts*.
- Have the students go through the book looking for *long* and rereading the sentences with *long* in them.

- Invite the students to read the book again with a partner.
- Have the weakest reader in the group reread the book to you.

Follow-Up Activities

Revises, consolidates and extends learning

Have the students complete some or all of the following activities. They can do this individually or with a partner.
- Read *Snowy Weather* again.
- Read and re-read *Snowy Weather* using the audio and/or e - version.
- Re-read *Workers in My Street*, *A Run to the Bay,* and *Toads*.
- Illustrate the sentence they wrote in the Quick Write section of the lesson.
- Write further sentences to add to the Quick Write sentence.
- Work with a partner to test each other using the high-frequency word cards.
- Practise spelling using the appropriate spelling list.
- Use the Vocabulary and Spelling Cards to extend vocabulary and spelling.
- Complete the activities in the School - Home Connection Booklet.

Colour-Coded Check Sheet

Title: Toads
Intervention Level: 12.1
Word count: 152
New phonic skill: oa
New high-frequency word: water

<u>Key</u>
New decodable
Previously taught decodable and/or word family
New high-frequency
Previously taught high-frequency
Accessible from context and/or photos

2/3

Toads look like frogs.

They are brown and green.

They have dry skin with lots of bumps on it.

Toads have two big bumps on their head.

The bumps are called glands.

4/5

You can see toads on the land.

They stay in the sun to keep warm.

It can be hard to see toads when they hide in twigs and leaves.

They hide to keep safe from predators.

6/7

You can see toads in water.

They soak in water to keep cool.

They do not drink the water.

They soak water in through their dry skin.

8/9

Toads mate in the spring.

Male toads go to the pond.

They blow up their throat and croak.

The female toads come when the male toads croak.

10/11

Female toads lay their eggs in the pond.

The eggs hatch into tadpoles.

The tadpoles do not look like toads, yet.

They have a long tail.

They have no legs.

Comprehension Questions

Literal
   Why is it sometimes hard to see toads?
   Why do toads go in the water?
   What do male toads do in the mating season?
   Where do female toads lay their eggs?
Inferential
   What are the main facts in this book?
   What is the same about toads and frogs?
   Which photo do you like the best? Why?
   What other animals do you know where the young
   doesn't look like the adult?

Data Point Sheet

Toads   Name: Date:

Word Count   152   **Level** 12

Number of Errors ☐

0 - 8 errors	text is easy 95% - 100%
9 - 20 errors	text is instructional 87% - 94%
21 + errors	text is difficult 86% or lower

Type of Error

Red   *new decodable skills* ☐

Green *previously taught skills or word families* ☐

Blue   *new high-frequency words* ☐

Pink   *previously taught high-frequency words* ☐

Brown *words accessible from content or context* ☐

Self Correction Rate Ratio	$\dfrac{E + SC}{SC}$
1:3 – 1:6	good
1:7 +	needs help

Comprehension Literal

Number correct ☐

Number partially correct ☐

Number incorrect ☐

Comprehension Inferential

Number correct ☐

Number partially correct ☐

Number incorrect ☐

Comprehension Score

7-8 correct/partially correct very good
5-6 correct/partially correct good
0-4 correct/partially correct needs help

Fluency

Reads fluently with expression ☐

Reads with moderate fluency ☐

Reads slowly - word by word ☐

Oral Fluency Level - Words Read per Minute
DIBELS ® 2006 at or above 60th percentile

	February	July	December
Year 2	N/A	34 - 64	65 +
Year 3	66 - 89	90 - 108	109 +
Year 4	97 - 109	110 - 128	129 +

Overall comment – combining T.A.P.S. test results, accuracy, type of error, comprehension, and fluency

Reading Level

Appendix F: Massey University Human Ethics Committee Northern Approval Letter

MASSEY UNIVERSITY

ALBANY

7 July 2015

Bridget Alexandra MacDougall
20A Ngake Street
 Orakei
Auckland 1071

Dear Bridget

HUMAN ETHICS APPROVAL APPLICATION – MUHECN 15_032
A comparison study of Quick 60 and Reading Recovery Instruction

Thank you for your application. It has been fully considered, and approved by the Massey University Human Ethics Committee: Northern.

Approval is for three years. If this project has not been completed within three years from the date of this letter, a re-approval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Dr Andrew Chrystall
Acting Chair
Human Ethics Committee: Northern

cc   Professor Tom Nicholson, Dr Jeanette Berman   Professor John O'Neill
        Institute of Education   Director of Education
        Albany Campus   **Albany Campus**