Explicit teaching of high-frequency words in prose to

Year One Reading Recovery students will improve reading accuracy

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<u>ABSTRACT</u>

The hypothesis of this study was *explicit teaching of high-frequency words in prose to Year One Reading Recovery students will improve reading accuracy.*

The needs of four Grade One Reading Recovery students were determined through formal and informal assessments and two students were selected for the intervention group and two students for the control group.

The method used incorporated the Reading Recovery lesson into the teaching sequence and involved targeting those frequently occurring words in prose. These target words included one/two syllable and sight words. Prior to the lesson, the previous Target words were revised and new words introduced. The students were required to visualize, read, spell and write them, and also locate Target words within a familiar text. During the lesson, students were given the opportunity to construct, visualize, write and trace the words using a kinesthetic approach. Attention was directed toward the Target words whenever opportunities were presented. Target words were then revised at the end of the lesson and the words placed on a wall chart for reinforcement.

During the ten day teaching sequence, running records and student responses of the Target words were recorded daily. Students were then post tested using the same assessments used for the pre-testing.

The findings of the study support my hypothesis that the *explicit teaching of high-frequency words in prose to Year One Reading Recovery students will improve reading accuracy,* as significant gains in reading accuracy were made by the students in the intervention group.

The findings are a useful extension to other current research available, but are particularly useful for Reading Recovery teachers, as it provides evidence to suggest that additional learning opportunities within the Reading Recovery lesson can enhance the acceleration of students on the program.

INTRODUCTION

As I am a Reading Recovery teacher, I am helping children every day with reading difficulties and it is my responsibility to accelerate the learning of these children who are at risk in reading and writing.

"Learning to read in the early years of school is an essential pre requisite for all learning which will take place in school and in life. It is the foundation on which all learning can be built upon. In fact learning to read in the first several years of school is essential to success in later grades and in life." (Hiebert, Pearson, Taylor, Richardson, Paris 1998). However, many students experience reading difficulties.

In short, reading difficulties can be caused in part by six main factors:

Immature earlier language development (specific delay, phonological or phonemic processing, RAN, grammatical knowledge, short term auditory memory, vocabulary), Sensory impairment (visual and auditory perceptual processing), Emotional factors, Cognitive reasoning and information processing factors, Earlier access to appropriate teaching and involvement in contexts in which reading is not a valued activity. In fact, a major reason why students have reading difficulties is because they cannot read words accurately or automatically. (Munro 2005)

Hiebert, Pearson, Taylor, Richardson, Paris (1998) argued that if by Year Three, children spend all their time trying to work out these frequently occurring words, their fluency when reading will be impeded and subsequently their comprehension of the text will be greatly affected.

Past research by Velasco (2001) indicates that for those students that exhibit low reading ability, their academic growth will be impeded. She notes that one of the

variables evident in children with reading difficulties is that they have low word analysis skills.

Clearly, there are a number of factors that contribute to reading difficulties, and being unable to accurately and rapidly read high frequency words in prose is one of them. This inability to automatically read words accurately in turn affects their fluency and comprehension because they are focused on trying to work out the unknown word and all meaning is lost at the point of difficulty.

Hiebert, Pearson, Taylor, Richardson, Paris (1998) noted that "Proficient readers recognize the fast majority of words in texts quickly, allowing them to focus on the meaning of the text."

Mayfield and Holmes (1991) conducted a study in Alabama to determine what effect the direct teaching of sight words would have on reading achievement of at-risk students. The reason for targeting sight words was because they found that the student's poor grades in reading appeared to be a result from their inability to decode and/or recognize enough words. The intervention focused on expanding on direct instruction in vocabulary over a 6-week period. Analysis of their results revealed that "very brief direct instruction in sight word recognition combined with daily word drill assignments resulted in vocabulary and comprehension unit test scores of at-risk third graders significantly higher than those of control group students."

 (Hiebert, Pearson, Taylor, Richardson and Paris, 1998) also conducted a study with Year Three students in Washington, DC. America. The study proposed that the teaching of eight fundamental reading strategies/topics would improve reading performance. The teaching of high-frequency words was included as one of these fundamental topics.

The reasons given for including the teaching of high frequency words as one of the eight fundamental topics was that "Since approximately 300 words account for 65% of the

words in texts, rapid recognition of these words during the primary grades form the foundation of fluent reading…Fluency refers to the ability to identify words rapidly so that attention is directed at the meaning of the text." Hiebert, Pearson, Taylor, Richardson, Paris (1998). Their study concluded that "Reports on children who do not master this core group of 100 high-frequency words until Grade Three and go on to become good readers are infrequent."

In fact Munro (2005) has determined that word reading difficulty is linked with psycholinguistic ability. That is, he suggests that the ability to accurately read words automatically can be due to phonemic awareness knowledge, the ability to recall names automatically, vocabulary knowledge, the reader's knowledge of word meanings and the ability to pronounce words accurately.

There is considerable agreement on the validity of teaching high-frequency words to students experiencing reading difficulties. Particularly when you direct your teaching to those words that frequently occur in the books the children have read or are about to read and also, those words that frequently occur within their writing vocabulary

Clay (2005) suggests that sometimes it is necessary for children to learn words in isolation. "Extended work with words in isolation may be necessary from time to time for some children".
However, even though it is stated that these tricky words be studied in isolation, she suggests that these high-frequency words actually emerge from the current work that the children are doing elsewhere in the lesson because "children will remember words because they have met them and worked on them many times." Clay (2005)

Waiser and Whiteley (2001) conducted a study in Ontario, America which supports the notion of teaching of high-frequency words in reading and writing. Attention was directed toward accessing those high frequency words previously introduced to the students in books they had read and in interactive writing sessions. Results showed that "improvement in word recognition has contributed to improvements in reading levels."

The study conducted by (Hiebert, Pearson, Taylor, Richardson and Paris, 1998) also concluded that "Rapid recognition of this core group of high-frequency words is gained through extensive involvement in reading and writing."

PRESENT STUDY

Thus, this present investigation aims to extend and support all of the current research by examining what influence the teaching of high-frequency words from prose has on a student's reading ability.

It is my experience as a reading recovery teacher that when teaching 'hard to accelerate' children, (i.e. children that are reading at an Instructional level below Level three and have difficulty moving onto more challenging texts), one of the main reasons they have difficulty improving their word accuracy and moving onto more challenging texts is that they are unable to quickly and automatically recall and accurately read those frequently occurring words in prose i.e. 'high frequency' words. These are words that are frequently occurring within the texts that children are reading. In the case of this study, I am specifically targeting high frequency words within the commercially produced texts – The PM Series and the PM Plus Series from Levels 1-5.

Konza (2003) states that it is very important for students to be able to recognize words in isolation and in text so that they "have enough exposure to these words to be able to store the 'pattern' of these words in their visual memory or mental lexicon."

So, in response to my observations from the assessment data (Word Reading Test (Clay 1993), Burt reading test, running record analysis, anecdotal), various other records and lengthy interviews with their Prep Teachers and the student's current Grade one teachers, it was evident to me that there was a problem in that the student's had difficulty accurately and automatically reading words that occurred frequently in their texts.

Whilst I draw your attention to the limited availability of research that has been done on this topic, there has been some varied research into the teaching of high-frequency

words and what approaches are the most affective.

Velasco (2001) proposed that the teaching of high-frequency words should be done using a multisensory approach. i.e. using auditory, visual, kinesthetic and tactile activities. She notes that "the learning must be multisensory because all learners retain information in different ways. Multisensory teaching reaches all types of learners."

Even Clay (1993) agrees, that for those children who have low recall, one should arrange a consistent approach for remembering words for repetition and over learning by presenting the words in different ways using visual analysis, word reconstruction, tracing, visualizing and writing practice.

Therefore, the purpose of this study was to examine my observations more closely and design and implement an intervention using a multi sensory approach which would support the acceleration of the children attaining higher reading levels and improve their comprehension of the story.

PREDICTION
Explicit teaching of high-frequency words in prose to

Year One Reading Recovery students will improve reading accuracy.

METHOD

Design

An OXO design will be employed in this study in which the explicit teaching of high-frequency words in prose and in isolation to Reading Recovery students, will make use of the Reading Recovery Lesson format to accelerate their reading accuracy.

The four students were formally assessed at the start and at the end of the intervention with the same tasks to ascertain what progress had been made. The children were

withdrawn individually for the pre and post test assessments. The students were also

withdrawn individually for the ten teaching sessions. Accuracy in

both isolated word reading and in prose reading, student understandings

and new learning behaviours were recorded throughout the ten sessions.

Participants

The hypothesis that was formulated for this study was to ascertain whether the teaching

of high-frequency words to Reading Recovery students would accelerate their learning.

Therefore, there are four participants in this study. The students were identified at the

start of the year as being those students 'most in need' for the first intake of the Reading

Recovery program. This was ascertained from discussions with teachers during the

Professional Learning Team meetings and also from formal assessments done at the

beginning of the year using the Observational Survey tests for all Grade one students.

For the purpose of this study, the students will be named: Student A, Student B,

Student C and Student D. Students A and C are female and Students B and D are male.

Table 1: - Observational Survey Results (February 2006)

	DOB	Age @ Feb 2006	Instr. Book level	L.I.		C.A.P		WORD		BURT	WRIT'G		H.S.I.W		R.O.L
				54	**St.**	**24**	**St.**	**15**	**St.**	**S.**	**S.**	**St.**	**37**	**St.**	**S.**
A	31/10/99	6+3	2	47	2	8	1	4	2	2	12	2	25	3	27
B	15/01/00	6	2	52	5	13	2	3	2	9	18	3	32	4	22
C	14/09/99	6+4	1	53	6	16	3	4	2	11	11	2	19	2	13
D	27/01/99	7	1	49	3	13	2	2	2	11	11	2	19	2	13

S. =score St. =stanine

All students attend a school in the outer south eastern region in Victoria which predominately have students with an E.S.L. background. All of the students in this study have an E.S.L. background. Two will be in the intervention group (Student A and Student D) and two will be in the control group (Student B and Student C).

Of particular concern with these students and the reasons why they were selected to be part of this study, was their alarmingly poor scores across the Observation Survey and their low Instructional book level which was below the reading benchmark levels expected in Year One students. I administered these formal assessments in February this year, and it was during this time, that I observed behaviours that indicted these children would fit into the category that Clay (2005) describes as 'hard to accelerate' – that is "…acceleration is an outcome of sound teaching in the first few weeks of the lesson series…However, for some children and some teachers this does not seem to happen."

Student A, B and D did not exhibit any visual, auditory or speech impairments. Student C has had assessments done by the CEO psychologist to gather information regarding her overall cognitive ability, as there were some concerns in Prep in regard to her inability to follow instructions, her fine and gross motor development and her below average performance in Literacy and Numeracy. It's worth noting the school nurse assessment in Prep found her vision and hearing to be within normal screening limits. It was noted that she was having difficulty with her speech and Fine and Gross motor skills and her short term auditory memory scores were below average. Reading Recovery assessments revealed that all students exhibited low self efficacy and would not have a go at problem solving the unknown word at the point of difficulty in

prose or when reading the tricky word in isolation. Student A, B and C are in a straight

Grade One class and Student D is in the other straight Grade One class.

Table 2: Descriptions of student learning difficulties

Participants	Gender	Description of learning difficulties
Student A	F	The family speaks English at home but is of a Greek background. Had significant separation issues from Mum in Prep. Is very shy and lacks confidence. One to one and directionality not consolidated. Does not attend to visual cues when reading words in prose but when prompted, attends to the distinctive visual features (initial) when reading words in isolation. Has a very limited knowledge of high frequency words she can read and write accurately and automatically. Difficulty hearing correct sequence of sounds in words. Has a small repertoire of reading strategies is not a 'risk taker'.
Student D	M	Has a Spanish background and the family speak Spanish at home. Mother has significant separation issues with her children and is very protective of them. Does not attend to visual cues when reading words in prose or in isolation. Has a limited knowledge of high frequency words he can read and write accurately and automatically. Lacks confidence and is not a 'risk taker'. Has a very limited repertoire of reading strategies.

PROCEDURE

<u>**Materials**</u>

For those materials required for the teaching sequence, refer to (Appendix A).

The following formal assessment tasks were administered as part of the pre and

post intervention testing and the time taken to complete each task were recorded.

*PM and Pm+ series texts. these texts are graded and students given a Running record to determine their instructional reading level at approximately 90% reading accuracy.

*Running Records using the (Clay 2005) recording format as per the Reading Recovery Program. Used to determine the instructional reading levels of the students.

*Word Reading Task. Because there was no commercially produced assessment tasks to test those specific high-frequency words occurring in the PM and PM+ Series (Level 1-5), one was designed by me which comprised a total of 20 words; 10 of which were to become the Target Words for the 10 teaching sessions. (Appendix G)

*Edwards Quick Word Reading Test. Levels PP (10 words), P (10 words) and I (10 words) to give a total of 30 words.

*RAN test prepared by (John Munro and Hugh McCusker).

The RAN test was included to detect the student's ability to retrieve names and sounds because a slower naming speed may be due to a difficulty activating a sound code for the written word and this will impact on their orthographic skills. This information would be useful for further recommendations for teaching if required.

Data collection during the intervention included:

*Session record sheets. Designed for the teacher to note the change in skill, knowledge or ability and other significant observations during the ten sessions. Particularly in terms of recording if the student read the word correctly or partially correct, did the student have difficulty writing the word or making the

word using the different tactile mediums provided. (Appendix B).

*Running record sheets. These were used as a measure to see

whether any changes or improvements were happening during the intervention.

As each 'new' text was read daily, a running record was taken. This was

particularly useful in providing specific information on a daily basis, as to

whether the student was retaining those high-frequency words that were

introduced in previous lessons in their long term memory and also, it provided an

indication as to whether the student could effectively remember the new target

word introduced for that session. This was recorded in a

*High-frequency word table. Data for this table was taken from the daily

Running record only. This enabled information to be recorded regarding

the target word (including previous target words) i.e. The frequency the word

occurred in the text, was the word read in/accurately or partially accurate, was

the word recorded as a 'told' or self-corrected. All relevant behaviours

pertaining to the target words was also noted. (Appendix C).

INTERVENTION FORMAT

The objectives for the intervention program were for the students to:
- <u>Read </u>the Target word in isolation (flashcards, word wall etc) and in prose (familiar and new) accurately and automatically.
- <u>Spell</u> the Target word at the point of introduction.
- <u>Locate</u> the Target word in prose (familiar and new) in different places in the sentence.
- Accurately <u>make</u> the Target word using different tactile materials. E.g. Play dough, shaving cream, and magnetic letters.
- Accurately <u>write</u> the Target word on different tactile surfaces. E.g. small blackboard, whiteboard, sand tray, using a water brush and writing on a small blackboard and practice writing the word in the daily writing component of the lesson.

- Make progress within a supportive and positive environment.
- Achieve a sense of satisfaction at the end of the teaching sessions.

The intervention was administered to two grade one children within the Reading Recovery Program over the course of a three week period and was conducted in the Reading Recovery room. The children were withdrawn individually as part of their normal Reading Recovery lesson which is during the Literacy block in the morning. However, due to child absences and other occurrences at the school, some of these lessons were delivered two times on the one day i.e. a 'double' lesson. One in the morning and one before lunchtime. Each student received ten teaching sessions. Of these, Student A received one 'double' lesson and eight single lessons. Student D received four 'double' lessons and two single lessons. This was mainly due to student absences of Student D. Lessons took approximately 40-50 minutes which included the 30minutes required for the formal Reading Recovery lesson. The lessons followed the format outline in (Appendix A).

One new Target word was introduced per day. See (Appendix D).This word was revised and included in further daily teaching sessions. For example, in the revision games at the end of each teaching session or in the 'locating' of known words in the familiar book. The intervention included the sequence of a typical reading recovery tutoring session (Appendix D) and followed John Munro's Developmental sequence in learning to read words as described in the 'multiple levels of text processing' (MLOTP) model (Munro 2005). During the sessions, the students were taught that words have three parts to them: the way they look (orthographic patterns), the way they sound (phonological properties) and what they mean (semantic properties).

Building on the reciprocity of reading and writing, attention was directed toward those

high frequency words, and opportunities were 'created, encouraged' by the teacher during the reading and writing part of the lesson to further practice those words. This supports Clay (2005) view that "…both reading and writing in the early acquisition stage as contributing to learning about print. Learning to write letters, words and sentences is particularly helpful as the child learns to make the visual discriminations of detail in print that he will use in his reading….he can be encouraged to search for information in his memories of either reading or writing, establishing reciprocity between these aspects of learning about printed language."

The teaching sequence also followed John Munro's (2005) 'Framework for cueing the students on how to interact with text 'which followed the **before, during and after** reading cueing system at the **word level** in the MLOTP model.

Before reading, activities were designed to work on the student's phonological Knowledge so that the 'children would have a coat hanger to hang their orthographic knowledge on.'(Munro, 2005). For example:

Before learning to read the words, activities were designed a) for developing and automatizing relevant phonological knowledge. This included students having to:

*Say accurately each Target word they will read;

*Make auditory and/or visual links to other words they know that rhyme or look similar;

*If possible, segment spoken words such as *not, look can* into onset and rime;

*Discussing any shared sound patterns.

b) to ensure students comprehend the meanings of words. This included:

*Using the target word in a sentence to show its meaning.

c) for students to learn relevant phonemic knowledge. This included:

*Separating words into separate sounds;
*Substituting consonants or vowels in a spoken 1-syllable word i.e. *look/book* etc.

While learning to read words work on any letter cluster-sound links with the target

Word. Some example activities are: a) read each word 2 or 3 times; b) read each word in

Segments; c) spell the word; d) write a sentence to show its meaning; e) reading prose

f) visualize each word and aspects of the pattern; g) teach meta-phonemic knowledge

directly i.e. for words like *look looks looked looking, come comes* etc.

After learning to read words work on learning to read the word automatically so that

Letter-sound links are recognized automatically. Some activities examples are:

a) memory activities/games; b) check students can remember the target word c) teach

students how to chunk words i.e. *You know the start and end bit, just remember the*
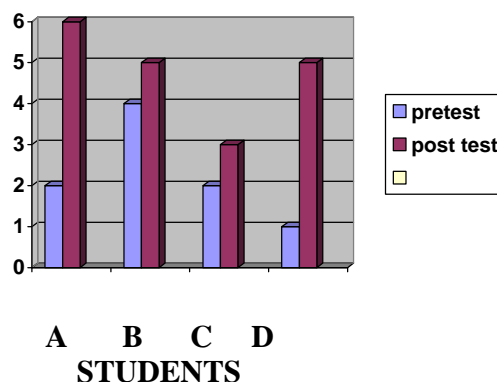
 middle part.

RESULTS

The data gathered as a result of this action research project shows that Student A and D

made significant gains in all of the post-testing tasks. Refer to (Appendix E).

Graph A
COMPARING INSTRUCTIONAL TEXT LEVELS

T ext
 Level

A   B   C   D
STUDENTS

Graph A compares the level of Instructional text for students in the intervention group as well as the control group. It is clearly evident that Student A and D made considerable gains, with both students moving 4 levels after instruction.

Student A   increased her Instructional reading level by 4.
Student B   increased his Instructional reading level by 1.
Student C   increased her Instructional reading level by 1.
Student D   increased his Instructional reading level by 4.

After pre-testing the following observations and results were recorded:

Student A read at a Reading Recovery Instructional Level 2 with 90% accuracy and a Self-correction ratio of 1:2 **Time taken** to read was 1. 47 seconds and the **reading rate** was 36 words per second and was read with a good pace but with little expression and in a monotone voice. The errors were led mainly by structure cues and visual cues were mostly used when cross-checking.

Student B read at a Reading Recovery Instructional Level 4 with 94% accuracy with no self-corrections. **Time taken** to read was 1.42 seconds and the **reading rate** was 46 words per second. Reading sounded very choppy with word by word reading at a very slow pace. The student failed to problem solve the unknown words at 4 points of difficulty.

Student C read at a Reading Recovery Instructional Level 2 with 93% accuracy with a self-correction ratio of 1:5. **Time taken** to read was 1.50 seconds and the **reading rate** was calculated at 36 words per second. The student read at a slow pace, mostly word by word, with no fluency. The errors were led by distinctive visual features and structure cues.

Student D read at a Reading Recovery Instructional Level 1 with 91% accuracy with no

self-corrections. **Time taken** to read was 40 seconds and the **reading rate of** 82.5 words

per second. The reading sounded phrased and fluent and was a good pace. The errors

were lead by all 3 cue systems.

When comparing results of the Instructional Reading levels of the pre and post testing,

significant progress was made with the intervention group. Not only did their

Instructional reading levels greatly improve, but the students were also beginning to

utilize a variety of reading strategies at the point of difficulty to help them problem solve

unknown words. I.e. rereading and referring to picture cues, sometimes together! Texts

were also read with more expression and both students began to 'read the punctuation'

with an overall improvement in fluency observed. Reading rates were also significantly

lower on the post-testing for all four students. See (Appendix E).

Graph B

### COMPARING HIGH FREQUENCY WORD TESTS

Raw score
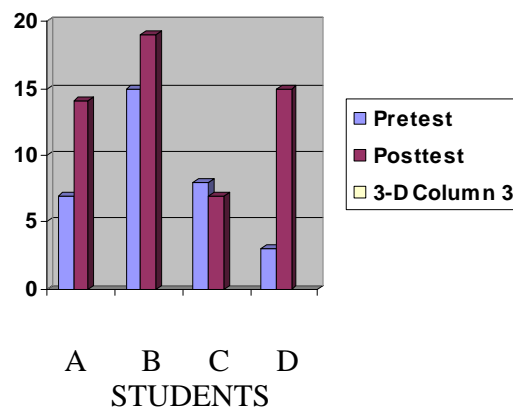
Graph B shows that Students A and D both made significant gains in the reading

of the high-frequency word test. Students B made a small improvement and Student C

actually scored lower on the post test.

Student A   increased her word bank by 7.
Student B   increased his word bank by 4.
Student C   decreased her word bank by 1.
Student D   increased his word bank by 12.

Graph C
COMPARING EDWARDS QUICK WORD READING TESTS

Raw score

A   B   C   D
STUDENTS
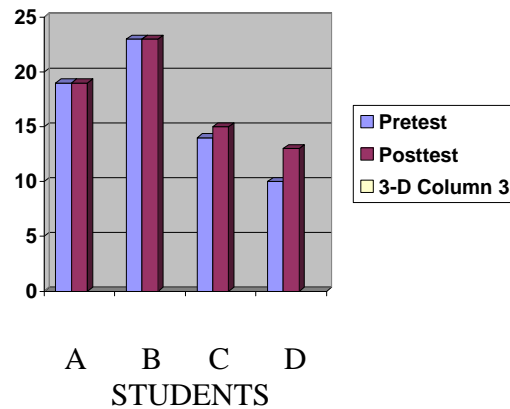
Graph C details the results of Edwards Quick word test. Scoring is one

error=independent, two errors=instructional and three errors=frustration.

Pre-test results showed Student A with a total of 11 errors, so she is operating at the

frustration level. Student B had 7 errors and is operating at an instructional level. Student

C had 16 errors and is also operating at the frustration level. Student D made 20 errors

and is also at the frustration level.

Post-test results no change for Student A, student B made one less error and is still at the

instructional level, Student C made one less error and Student D made fewer errors but is

still at the frustration level.
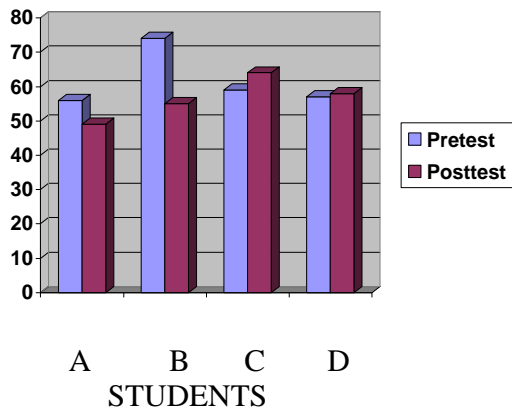
Results overall indicated Student D made some gains and so did Student C. Students A

and B did not make any gains.
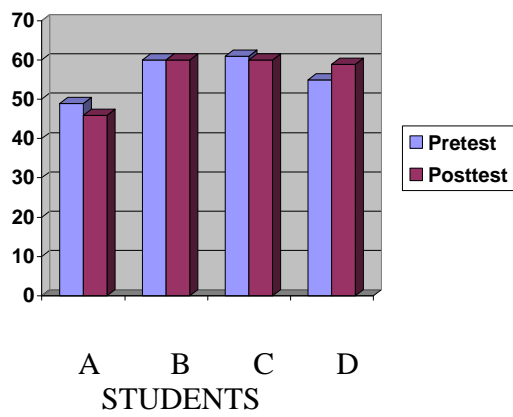
Graph D

COMPARING RAN TESTS

RANL-1

Time in
Seconds

STUDENTS

RANL-2

Time in
seconds

STUDENTS

RAND-1

Time in
seconds
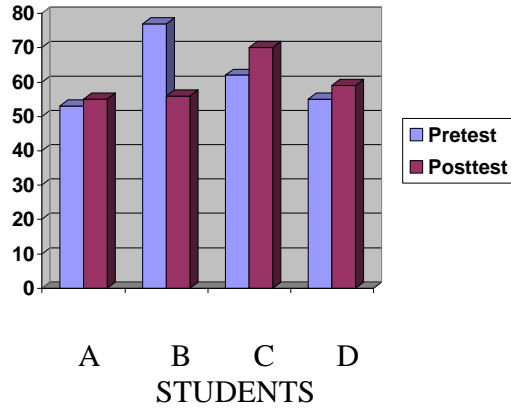
RAND-2

Time in
Seconds
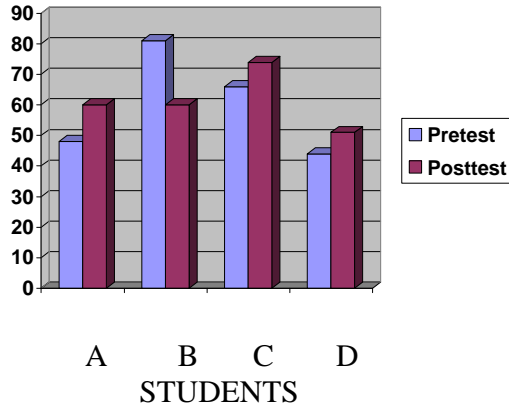
Table 3

PRE-TEST RANL AND RAND RESULTS

	RANL-1		RANL-2		RAND-1		RAND-2	
	ERRORS	TIME	ERRORS	TIME	ERRORS	TIME	ERRORS	TIME
Student A	0	56	0	49	0	53	0	48
Student B	0	74	0	60	0	77	0	81
Student C	9	59	9	61	0	62	1	69
Student D	0	57	0	55	0	66	0	44

Student A was finger pointing on RANL-1 with a long pause on 'p' and made 2 self corrections 'a/o' and 'd/p' on RANL-2 with a long pause on a separate 'p'. Zero errors.
Student B has a long pause at 'd' on RANL-1 and said "it looks like a pattern" and also hesitated at 's' and 'd' on RANL-2. 2 self corrections were made on RAND-1 '8/2' and '6/7' and one self correction on RAND-2 9/2 with a long hesitation at '9'. Zero errors
Student C had 9 errors on RANL-I and RANL-2, these were all 'b/d' confusions, with 'b/o' but self corrected. Its worth noting that the student repeated letters 's' , 'a' and 'd', with letters 'a' and 'd' being visually similar. It's worth noting hesitations at '9','2' and '7' on RAND-1 and 2. This student tried to rush through this test.
Student D made one self correction on RAND-1 'b/d' and reread the first 3 digits in the last row on RAND-2. One self correction was made on RAND-1 for '2/4'. Otherwise, this student responded confidently with zero errors.
Student B had the average slowest RAN ability and **Student A** had the fastest.

Table 4
POST-TEST RANL AND RAND RESULTS

	RANL-1		RANL-2		RAND-1		RAND-2	
	ERRORS	TIME	ERRORS	TIME	ERRORS	TIME	ERRORS	TIME
Student A	0	49	0	46	0	55	0	62
Student B	0	54	0	60	0	56	0	61
Student C	10	64	10	60	0	70	0	74
Student D	0	59	0	59	0	59	0	51

Student A had the average fastest RAN ability and **Student C** had the slowest.

Student A made one self correction on RANL-1 and RANL-2 i.e./d' with one hesitation on 'a'. One self correction was made on RAND-1 '9/6' with 3 digits repeated on both tests. Zero errors.

Student B made one self correction each on RAND-1 and 2 i.e. '7/9' and '6/9' with 2 repeats. Zero errors.

Student C used her finger to point and had the most difficulty accurately recalling the letter 'd' with 19 'b/d' confusions and one 'o/a' confusion. Zero errors were recorded for the RAND-1 and 2, but one self correction was observed for '6/9' and 2 hesitations for each number.

Student D made one hesitation for 'd' and reread the last 3 digits on the last row again and made one self correction for '2/7' with zero errors.

DISCUSSION

The results support my hypothesis that:

Explicit teaching of high-frequency words in prose to Year One Reading Recovery

students will improve reading accuracy.

The purpose of this study was to find out if the explicit teaching of those words that frequently occur in prose, would improve reading accuracy. The results from the comparison between pre and post-testing assessments were **positive** and support my hypothesis. The **overall trend** clearly demonstrates that Students A and D significantly improved their reading accuracy which enabled them to progress four Instructional levels. Students B and C made minimal gains and I attribute those gains to the Reading Recovery instruction itself.

This was pleasing to me, as not only did their high-frequency test scores significantly improve, but the students were able to transfer this information into their prose reading.

The success of the intervention could be attributed to the fact of the carefully designed and scaffolded teaching sessions. Firstly, the students were introduced to the new target word before text reading began and as (Staman 2002 cites Leung 1992) says "students benefit from exposure to new vocabulary before they encounter the unfamiliar words in the text." The very nature of the structured Reading Recovery lesson then provided repeated opportunities for students to encounter the new target word which (Staman 2002) also says, helps students remember the new words if they are repeated in context. "children learn sight words more effectively when they read texts that repeat these words again and again"(Staman 2002 as cited in Juel and Roper/Schneider, 1985).

Even Clay (2005) agrees that "to be able to work on words in isolation is not enough. The reader and writer must also be able to handle those words flexibly in continuous texts." Gains in fluency were also noted in the present study. This then enabled the students to work on improving those reading strategies that will further develop them as

independent readers. It was pleasing to observe an improvement in their use of various reading strategies and their willingness to 'have a go' and become 'risk takers'.

(Clay1993) says that "Secure knowledge of high frequency words help to maintain reading fluency. This in turn, allows greater access to the meaning of what is read and supports the *construction of inner control.*"

In Stamans' report on the "Hand prints" Early Reading Program, the importance fluency has on a student's comprehension ability was also noted. "The panel found that students need to read fluently to comprehend well." (Staman 2002 as cited in NRP, 2000).

Mayfield and Holmes (1991) found that on analysis of student outcomes, there was a significant difference in group scores in favour of the experimental group. This was found to be the case in the present study with significant improvements in reading text levels and marked increases in high-frequency word recall and use in prose.

I also believe, the reason for such a significant improvement is due to the fact that I utilized a tactile approach in the teaching sequence. Using this sort of approach, helped students to "get it in their head" and store it in their long term memory. The seeing, feeling and constructing of the target words, helped the students form a visual picture of the word in their mind. This enabled them to transfer this information when encountering the words in other contexts. As Velasco (2001) says, that the teaching of high-frequency words should be done using this approach. In her work with the "Working with Words" program, she found that when students are exposed to the words in a variety of ways and provided with enough practice, the words can be read and spelled automatically. After five months, her program was evaluated, and students performed at a higher level on the posttests of high frequency words and leveled texts. My research also demonstrates similar gains in reading ability of words in isolation and in prose.

Waiser and Whiteley(2001) found positive results from their study of the teaching of high-frequency words when previously introduced to students. This was also the case with the present study, especially when you look at the post test results of the word reading tests.

<u>The implications</u> for further teaching practice are significant. I have always believed that sometimes, the Reading Recovery lesson is not enough, That from time to time, some children may require that little bit extra to accelerate them more quickly and get them reading more challenging texts. The present study provides evidence to support this notion. However, I don't think you should limit the teaching sequence to just 10 teaching sessions. I feel, the structure of the teaching sequence allows you to adapt to the needs of the students, thereby extending/shortening the length of sessions where appropriate and changing the target word to match the texts the student will be reading.

<u>Looking to the future</u>

One of the strengths of the teaching sequence is that it is flexible and can be adapted to match individual student needs within the Reading Recovery program or other students back in the classroom.

I am looking forward to teaching the 10 sessions to Student C whom I believe will greatly benefit from the use of the tactile approach as she did present with fine and gross motor developmental delays and has not accelerated as quickly as I had hoped.

In conclusion, I feel the two students in the intervention group made significant gains and this supports my hypothesis that the explicit teaching of high-frequency words in prose will improve reading accuracy.

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The teaching sequence used for teaching high frequency words in prose is to be used in conjunction with the Reading Recovery Tutoring Session (highlighted in blue) designed by Marie Clay for the Reading Recovery Program. Each session should take approximately 40minutes. One Target word to be introduced per session. Each new Target word to be added to the Word bank and revised at the beginning and end of the next session.

SESSION ONE

ACTIVITY	TASK DESCRIPTION	TIME	MATERIALS
Revision of target words	•student writes yesterday's target word on a whiteboard. •read all target words on cards.	1min.	•whiteboard & marker. •flashcards with target words on them.

Introducing and reading Target word	•Teacher introduces the target word on a flash card and reads the word.
	•Ask "Do you know what letter this word starts with?" (If the student doesn't know or says the wrong letter, the teacher says the correct letter).
	•Teacher spells the word.
	•Student - visualizes the word;
	    -reads the word;
	    -spells the word (with assistance if needed).
		1min.	•target word written on card – E.g. **are**

Locating Target word in prose and text reading	•Student to locate the target word in the familiar books on different pages and in different parts of the sentence. i.e. are, Are •Reread two familiar books.	7mins	•Students take home book from last night and new book to take home today
Text reading	•Reread yesterday's new book and take a running record.	5mins	•Yesterday's new book
Letter Identification and Constructing words	•Revise letter identification and construct words using magnetic letters on a large whiteboard – Target word to be made with the magnetic letters from various	1min	•Magnetic letters •Whiteboard

	letters provided. Trace over each letter to feel the shape. •Student to <u>run finger under</u> the constructed word and <u>read</u>. Repeat. •Stamp and clap letters.		
Writing a story and Target word practise	•Children compose and write a story – teacher to encourage use of the target word in the sentence. • When it comes to the point of writing the target word, utilize the kinesthetic approach to assist memory. •Student to write the word with their finger in the <u>sand tray</u>. Repeat •Student to write the word on the <u>whiteboard</u>. Repeat. (*NB)	12min	•Story writing book •Textas •Sand tray •Whiteboard and whiteboard textas
Reassembling story Locating target word	•Student to reassemble story that has been written on a sentence strip. •<u>Locate</u> target word.	1min	•Sentence strip •Textas •Scissors
Locating target word	•<u>Locate</u> target word in different places within the book.	1min	•New book
Text reading	•New book introduced.	5mins	•New book
Text reading	•New book read	5mins	•New book
Reading target words	•<u>Read</u> target word on card.	2mins	

*NB **Kinesthetic approach materials used in the daily lessons**

<u>Day 1 and Day 6</u> → sand tray, whiteboard.
•Student writes the word in the sand tray using finger and on the whiteboard using whiteboard texta.
<u>Day 2 and Day 7</u> → small blackboard, whiteboard.
•Use chalk to write the word on the small blackboard and whiteboard texta to write the word on the whiteboard.
<u>Day 3 and Day 8</u> → play dough, whiteboard.
•Make the word using the play dough. Write the word using the whiteboard texta on the whiteboard.
<u>Day 4 and Day 9</u> → water brush, shaving cream.
•Place water on a paint brush and write the word on the small blackboard. Use shaving cream to write the word on the table then use a finger to trace over the letters identifying the letters out loud as they go.
<u>Day 5 and Day 10</u> → feely bag, sand tray.
•Put a variety of magnetic letters in a bag. The student feels the shape of the first letter of the target word and pulls it out of the bag and places it on the table. Letters must be revealed in the correct sequence. Write the word using a finger in the sand tray.

APPENDIX B

SESSION RECORD SHEET

SESSION NUMBER:	DATE:
CHILD:	**TARGET WORD:**
ACTIVITY	**COMMENTS/OBSERVATIONS**
Revision of target word from last session -----------------	•Student reads word YES NO TA •Student writes word YES NO TA •Read all target words YES/NO ------ ----------------------
Introducing and reading target word	•Student reads the word YES NO TA •Student spells the word YES NO TA
Locating target word in prose	•Locates word YES NO TA
Text reading	
Letter ID and constructing words	•constructs word YES NO TA •Reads word YES NO TA
Story writing and target word practise	•writes word YES NO TA •makes word YES NO TA
Reassembling cut-up sentence and locating target word	•located word YES NO TA
Locating target word –book intro.	•Located word YES NO TA
Text reading	
Reading target word	•student reads the word YES NO TA _____
Revision – play memory or snap game	
New target word placed on the word wall	

*TA = TEACHER ASSISTED
*Word wall= a chart that shows those Target words introduced in every session. The newly introduced Target word is added to this, following the teaching sequence.
COMMENTS:

APPENDIX C

RUNNING RECORD TEXT _____LEVEL _____

ACCURACY _____   EASY INSTRUCTIONAL HARD
SELF CORRECTION RATIO _____
F.I.T. = frequency word occurs in text.   Tolds counted as errors

T. WORD	F.I.T.	CORRECT	ERROR	SELF CORRECT	PARTIAL CORRECT
are					
here					
said					
look					
come					
can					
down					
sees					
not					
going					
looking					

COMMENTS:

SEQUENCE OF TARGET WORDS TAUGHT AND TEXTS USED

	STUDENT A		STUDENT D	
	TARGET WORD	TEXT	TARGET WORD	TEXT
SESSION 1	are	Going out	are	Who jumped out?
SESSION 2	here	Kitty Cat	here	My accident
SESSION 3	said	Teddy Bear's Picnic	said	The merry go round
SESSION 4	look	Wake up, Dad	look	Baby wakes up
SESSION 5	come	Sam and Bingo	come	Little Chimp
SESSION 6	can		not	Pussy and the birds.
SESSION 7	down	Here comes little chimp	sees	My Book
SESSION 8	sees	Jack's birthday	can	Mother Bird
SESSION 9	not	Pussy and the birds	down	Jack's Birthday
SESSION 10	going	My Book	going	Baby Panda

A TYPICAL READING RECOVERY SESSION

 TIME APRROXIMATELY 3O MINUTES

*Rereading two or more familiar books.

*Rereading yesterday's new book and taking a running record.

*Letter identification and/or word-making and breaking.

*Writing a story (Including hearing and recording sounds in words).

*Cut-up story to be rearranged.

*New book introduced.

*New book attempted.

APPENDIX E

Table - : Pre-testing

STUDENT	A	B	C	D
Instructional Text Level	2	4	2	1
Reading rate	36	46	36	82.5
High frequency word Test /20	7	15	8	3
Edwards quick Word test /30	19	23	14	10
Average RANL Score	52.5	67	60	56
Average RAND Score	50.5	79	64	49.5

Table - : Post-testing

STUDENT	A	B	C	D
Instructional Text Level	6	5	3	5
Reading rate	34.5	29.7	36	41.2
High frequency word text /20	14	19	7	15
Edwards quick word test /30	19	24	15	13
Average RANL score	47.5	57	62	59
Average RAND score	58.5	58.5	72	55

APPENDIX F
TEXTS

Session 1: Going Out (Level 2) (Target word →are)

We are going to the swimming pool.
We are going to the movies.
We are going to the fun park.
We are going to the beach.
We are going to the market.
We are going to the park.
We are going to the party.
We are going out.

48 words. 8 sentences. 60 syllables.
Insufficient data available to calculate readability.

Session 2: My Accident (Level 2) (Target word →here)

Here I am, on my skateboard.
Here I am, on the ground.
Here I am, in the ambulance.
Here I am, at the hospital.
Here I am, in the X-ray room.
Look at this!
Here I am, in the plaster room.
Here I am, at home.
Look at this!

49 words. 9 sentences.   56 syllables.
Insufficient data available to calculate readability.

Session 2: Kitty Cat (Level 3) (Target word → here)

Here is Kitty Cat. Kitty Cat is hungry.
Here is a butterfly. Here comes Kitty Cat.
Look at the butterfly.
Kitty Cat is hungry. Here is a lizard. Here comes Kitty Cat.
Look at the lizard.
Here is Fat Cat. Here comes Kitty Cat.
Fat Cat is hungry, too. Look at Fat Cat!
"Come here, Kitty cat."

57 words. 14 sentences. 73 syllables.
Insufficient data available to calculate readability.

Session 3: Teddy Bear's Picnic (Level 3) (Target word → said)

"Look!" said Little Teddy Bear. "A Teddy Bear's Picnic!"
Here comes the bus.
Big Teddy Bear is on the bus. Little Teddy Bear is on the bus.
Here comes Panda.
Look at the bus! "No!" said Panda. "No!"
"Panda! Panda! Come in the balloon. Come to the picnic in the balloon."
Look! Panda is in the balloon. Here comes Panda.
Panda is at the picnic, too.

66 words. 17 sentences. 85 syllables.
Insufficient data available to calculate readability.

Session 3: The Merry-go-round (Level 3) (Target word → said)

"Come here, James," said Dad. "Come here, Kate. Come here, Nick. Here is a merry-go-round."
Look at James. James is up on a pig.
Look at Kate. Kate is up on a duck.
Dad said, "Here is a car, Nick." "No!" said Nick
Dad said, "Here is a plane, Nick." "No!" said Nick.
"A horse! Look! A horse!" said Nick. "Here is a horse."
James is up on a pig. Kate is up on a duck.
Nick is up on a horse.

84 words. 20 sentences. 85 syllables.
Insufficient data available to calculate readability.

Session 4: Baby Wakes up (Level 3) (Target word → look)

I am up. Baby is asleep.
Mum is asleep. Dad is asleep.
Baby wakes up.
I look at Baby. Baby looks at me.
"Look, Baby. Here is a little teddy bear."
"Look, Baby. Here is big teddy bear."
Here comes Mum.
"Look, Mum. Look at Baby."
"Baby is happy."

50 words. 15 sentences. 64 syllables.
Insufficient data available to calculate readability.

Session 4: Wake up, Dad (Level 3) (Target word → Look)

Kate is up. Nick is up. James is up.
Dad is asleep.
Kate said, "Wake up, Dad."
"I am asleep," said Dad.
James said, "Wake up, Dad." "I am asleep," said Dad.
"Dad, Dad, wake up!" said Nick. "Wake up, Dad!"
"Look, Mum! Look at Dad!"
"Wake up!" said Kate. "Wake up!" said James. "Wake up!" said Nick. "Wake up!" said Mum.
"I am up," said Dad.

67 words. 17 sentences. 70 syllables.
Insufficient data available to calculate readability.

Session 5: Little chimp (Level 3) (Target word → come)

Here is Little Chimp. Here is Mother Chimp.
Little Chimp is asleep up in the tree.
Mother Chimp is awake.
Here comes Mother Chimp.
Little Chimp wakes up. "Oo-Oo-Oo! Mother Chimp! Mother Chimp! Oo-Oo-Oo!"
Mother Chimp looks up at Little Chimp.
Here comes Mother Chimp.
Mother Chimp comes up to Little Chimp.

50 words. 13 sentences. 71 syllables.
Insufficient data available to calculate readability.

Session 5: Sam and Bingo (Level 3) (Target word → come)

"Here is my farm," said Sam.
"The horse is here."
"The pig is here."
"The cow is here."
"Here comes Bingo. No, Bingo! No!"
"Mum! Mum! Bingo is on my farm!"
"Look, Mum. The horse is here. The pig is here. The cow is here."
"The dog is here. Look at my farm."

53 words. 16 sentences. 56 syllables.
Insufficient data available to calculate readability.

Session 6: Pussy and the birds (Level 4) (Target word →not)

Pussy is hungry. Pussy is looking for a bird.
Here comes a bird.
Here comes Pussy. The bird is up in the tree. The bird is safe.
The birds look down at Pussy. "Naughty Pussy! Naughty Pussy! Naughty Pussy!"
Pussy is hungry. "Miaow, miaow." "Come in, Pussy."
"Here you are, Pussy."
Pussy is not hungry. Pussy is up on the bed. Pussy is asleep.
Cheep, cheep, cheep. Pussy is asleep. Pussy is asleep. Cheep, cheep, cheep.

76 words. 21 sentences. 101 syllables.
Insufficient data available to calculate readability.

Session 6: Here comes Little Chimp (Level 3) (Target word → can)

Here is Little Chimp.
Mother Chimp is up in the tree.
"Come on, Little Chimp," said Mother Chimp. "Come up the tree to me."
"I am too little to come up the tree," said Little Chimp.
"Come on, Little Chimp," said Mother Chimp. "Come up the tree."
Up, up, up, comes Little Chimp.
Little Chimp comes up the tree to Mother Chimp.
Little Chimp is up in the tree.

69 words. 10 sentences.
Insufficient data available to calculate readability.

Session 7: Jack's Birthday (Level 4) (Target word → down)

"A car for me," said Jack. "A red car! Thank you, Mum and Dad."
"Look!" said Jack. "My car can go up and down."
"Here is a garage for my red car," said Jack.
"My car can go in the garage."
"Mum! Dad!" said Jack. "Look! My car is in the garage."
Jack said, "My car is not in the garage!"
Dad said, "I can see the red car."
"Look," said Dad. "Here is Billy, and here is the car."
"Jack's red car is in the garage," said Billy.

89 words. 16 sentences. 95 syllables.
Insufficient data available to calculate readability.

Session 7: My Book (Level 4) (Target word → sees)

I am looking for my book.
My book is not here. Look! Here is my elephant.
I am looking for my book.
My book is not up here. Look! Here is my monkey.
I am looking for my book.
My book is not down here. Look! Here is my tiger.
Look! Here is my book.
Look at me. I can read my book.

63 words. 16 sentences. 70 syllables.
Insufficient data available to calculate readability.

Session 8: Pussy and the birds (Level 4) (Target word → sees) see session 6.
Session 8: Mother Bird (Level 5) (Target word → can) see session 7.
Session 9: Mother bird (Level 4) (Target word → not) see session 8.
Session 9: Jack's birthday (Level 4) (Target word → down) see session 7.
Session 10: My Book (Level 4) (Target word → going) see session 7.

Session 10: Baby Panda (Level 5) (Target word → going)

Mother Panda and Baby Panda are in the snow.
Oh, no! Look at Baby Panda!
Mother Panda is looking for Baby Panda. Mother Panda is looking in the trees.
Mother Panda is looking up the hill. Where is Baby Panda?
Mother Panda is looking down the hill. Where is Baby Panda?
Baby Panda is down here in the snow.
A big cat can see Baby Panda.
Mother Panda sees Baby Panda and the big cat. Mother Panda runs down the hill.
The big cat sees Mother Panda coming. The big cat runs away.
Baby Panda is safe.

97 words. 16 sentences.
Fry's readability is approximately Grade two level.

APPENDIX G

MOST FREQUENTLY OCCURING WORDS IN PROSE TEST
(PM AND PM+ SERIES)

STUDENT: ……..   **DATE:** ……………………..

are	here	said	going	out
look	day	down	can	come
this	up	comes	with	too
see	oh	you	away	not

APPENDIX H

A flow chart for your action plan

Use the following flow chart to develop your action plan for an intervention

Step	What you will do
Identify the problem to be targeted by the teaching. Describe it as clearly and as specifically as you can	*Poor reading accuracy when reading prose.
Say what you think is causing the problem from a teaching /intervention perspective.	*Limited knowledge of high frequency words.
Identify possible interventions that you think might work	*Explicit teaching of high frequency words during their Reading Recovery session using a kinesthetic approach.
Sharpen your possible solutions, select one that links the problem with the solution	*The child's ability to recognise and read high frequency words will improve with consistent and explicit teaching of these words.
Write your solution as an intervention: say • what you, the teacher, will do • what the student will do	*Students will be asked to take introduced words to fluency throughout the sessions using a variety of sensory materials. i.e. magnetic letters, sand tray, white/blackboard, shaving cream, play dough, water brush *The student's ability to recognize and recall high frequency words will increase their reading accuracy in prose.
Describe how you will contextualise the intervention: how you will • apply it in the classroom? • decide when to do it? • scaffold the child's learning? • cue the child to do it? • deal with information load? • pass control to the child? • see what the child already knows?	*Sessions will be included within their normal Reading Recovery lesson during the literacy block. *a. Verbal prompts/links used by the teacher will become less frequent as the sessions progress. b. Each new word introduced will be included in the next session's word list, so that by the end of the 10 sessions, the students will be working with a larger bank of words. *The words will be introduced visually on cards first and then reinforced using a variety of kinaesthetic & other methods. *The intervention will be implemented within a positive and supportive learning environment as required within the Reading Recovery Program framework. *As the student's ability to recall high frequency words becomes more accurate and faster, I would expect them to function more independently as the texts become increasingly more challenging. *The pretesting of each student before the sessions begin will highlight what they already know.
Describe the steps you will take to control or manage the intervention:	*Identify and record observed 'confounding variables'. **Can I discuss with the classroom teachers re not doing any class work with high frequency words?**

Decide how you will describe the changes in the student's ability, both during the research continues and when it has finished.	*If the intervention is successful the students: During -will be able to recall and record the high frequency words accurately and faster as presented throughout the sessions-use anecdotal records **daily** to record observations and reflections; -may use their new word knowledge in other areas i.e. they may begin to use the new words in their writing-again, record observations if observed and collect student work samples; -word accuracy will increase to 95%accuracy on seen texts-running record analysis →**interval analysis** After -improvements in the post testing data would be expected →**interval analysis**.
Describe your action plan. Note • how you will decide where each child is now in terms of your measuring stick. • how you will describe the student's entry level knowledge and ability • what you will look for as each child progresses to the goal • what you will look for • how you will record the changes.	*Use data collected from February 2006 Observation Surveys and note concerns from the classroom teachers to determine where each student is now. *Pretest data to include; running record analysis, Spelling pretest of high frequency words in isolation, RAN test(Munro & McCusker), Edwards quick word test *I'll be looking for an increase in reading accuracy on increasingly harder texts during the sessions. *This will be recorded on paper. Length of time to read words will be recorded to monitor progress as well.
Run and evaluate a pilot research study.	
Implement the intervention • the teaching procedures you used each session. • the teaching conditions you put in place • what the students did, both /behaviours you predicted and those you didn't predict • any unexpected or unanticipated behaviours or outcomes. • any benefits, problems and hurdles you experienced, how you dealt with them. • data you collected, how you measured progress, reviewed student gains. • how you debriefed, how each session fitted in your pathway.	
Review / evaluate the success of the intervention.	
Write a report that describes the intervention, what you did, the indicators of student progress, the outcomes, how you would recommend it being used in the future, for whom.	