Explicitly teaching high frequency words to Year 2/3 students will improve their accuracy in isolation and in prose.

ABSTRACT:

The ability to spell is an extremely important foundational skill required for an individual to be an effective written communicator. Accurate and automatic recall of the core high frequency words is essential if a student is to proceed as a competent writer and learner.

Research indicates that explicit teaching of the strategies such as visualization, analogy, mnemonics and morphemic knowledge can assist a student to cement the orthographic patterns of high frequency words in the mental lexicon.

This study examines whether explicit teaching of high frequency words to a group of five year 2/3 students improves their spelling accuracy in isolation and in prose. The explicit teaching focused on using the strategies of self talk, visualization, analogy and mnemonic/meaning where appropriate. The activities in the teaching sessions were designed to engage the parietal, temporal and occipital lobes of the brain. Research indicates that students are more likely to retain their learning when these parts of the brain are activated. This study supports current research and shows that the students' results were greatly improved after they had been exposed to eleven explicit teaching sessions that engaged their auditory, visual and kinaesthetic learning styles.

The specific high frequency words that were used in this study were chosen because they were deemed to be in the student's zone of proximity. In each teaching session the target high frequency words were said, read and written and used in a game. Each session followed a similar format to develop a sense of familiarity; however the rotation activities were varied and designed to be stimulating, fun and engage a variety of multiple

intelligences. The sessions followed John Munro's Developmental sequence in learning to read words as described in the Multiple Levels of Text Processing (MLOTP) Model (Munro 2005).

The study compared two groups of students, a control group and an intervention group. Ten students in total were involved in the study, five students in the control group and five students in the teaching group. All students in the study were identified at the start of the year as having great difficulty with accurate spelling of high frequency words. The students were formally assessed pre and post intervention with the same assessment tasks.

Observations of the students over the period of study noted an improvement in students' ability to articulate their metacognition, the what, how and why of their actions. It became apparent that if students could use their own 'self-talk' to direct their thinking and use an investigative approach to tricky spelling words, then they were more likely to retain the tricky spelling pattern.

The intervention that was utilized in this study produced very good results. The students in the teaching group made much better progress in both spelling in isolation and in prose. The improvement of accurate recall of high frequency words in isolation was higher that that in prose. However if the study continued for a longer period one would expect the progress of each student to be develop further and influence their ability to recall high frequency words in their writing.

INTRODUCTION

Accurate and correct spelling has been the 'bain', or should I say 'bane' of many students, parents and educators lives. Over the years much debate has been had over the how, what and why of teaching spelling. The simple topic of 'spelling' has had the ability to ignite many emotions; as Templeton (2003) says "Spelling is so visible, so obvious, that it often assumes the role of a 'proxy for literacy'....and in that role is bound to generate controversy" (pg.102). Nothing is more glaring than a misspelt word and as Parker (1991) states "In our society, being a proficient speller is important. Good spelling is regarded as the mark of a "well-educated" person, and because of this it can affect a child's future opportunities and choices in life" (pg.2).

Many educators, parents and students hold spelling in high esteem. A study of children's attitudes toward spelling by Rankin, Bruning, and Timmey (1994) found that children and adolescents believed that "spelling is important for being a good writer, doing well in school, getting into college, and getting a good job as an adult". If this is the case then an individual needs to know how to spell in order to benefit from life's opportunities. Spelling is the tool that allows us to be effective written communicators. It requires the seamless combination of phonetic, phonological and morphemic knowledge. Marland (2002) defines good spellers as having "an internalized set of cognitive tools that help them to visualize words, use an analogy, break up the words, and/or understand the words in context". Similarly, Butyniec-Thomas and Woloshyn (1997), suggest that "competent spellers possess a repertoire of effective spelling strategies, such as visual imagery and the use of analogy, and can apply them appropriately". .

Much research has been conducted over the years to determine best practice in regards to improving spelling. Extensive debate has been had to determine whether whole language or natural approach achieves higher results, or whether analytical or synthetic phonics is better; not to forget the ultimate debate about 'phonics', to teach or not to teach! Unfortunately, in spite of a plethora of research into best spelling practice, we are still producing individuals who are not confident or proficient spellers. They do not have the fundamental word level knowledge that is essential to be a good speller. Their ability to spell, "to put words with letters in an accepted order" (Encarta Dictionary) is flawed. Many spellers cannot accurately spell some of the most common words used in our writing. These common words have a variety of labels i.e.: high

frequency words, basic sight words, most commonly used words, but all refer to what Andrew (1997) as cited in Reiter (2007) defines as

"...a group of common words which are in constant use. They make up the framework of the language – the essential structure which helps you to read other wordsThese words are called Basic Sight Words because they must be known at sight – instantlyThey provide the framework from which other words in the sentence can be worked out, using context clues".

Reiter (2007) says that there are one hundred frequently occurring words that make up, on average, half the words found in reading and writing. Cunningham & Allington (1999), consider these high frequency words, to be "the building blocks of reading and writing. In order to read and write, children must learn to recognize and spell the most commonly occurring words quickly and automatically".

However, despite our understanding of how important these high frequency words are, there does not seem to be a concentrated effort to ensure students master these core words. Many students have difficulty accurately recalling the spelling of these words in their everyday writing. If they have difficulty spelling the basic words that make up 65% of their writing then the task of writing becomes laborious and stilted. Westwood (2005) says that learning to spell these words correctly and automatically is therefore a high priority for all students. Mastery of the most commonly used words is of particular importance for students with learning difficulties because these are indeed the words they use in their writing. If priority is given to learning this relatively small core of words the students will make fewer errors in their writing and will find the task less daunting. Mastering the list of high frequency words yields high returns for the student (pg. 36).

Most experts believe that spelling programs should have explicit study of high frequency words as a major component. The article "Every child a reader" by Hiebert et al, (1998) suggests that teaching reading and writing of high frequency words is fundamentally important. It is one of the eight major areas that they discuss and promote as essential for producing competent literate individuals. Graham, Harn's and Loynachan, (1996) as cited in Westwood (2005) believe that an effective spelling program must teach students strategies but also involve the explicit teaching of high frequency words.

It is universally agreed that learning to spell is a developmental process. As Schlagal (2002) explains "While there is debate about whether to describe this progress in terms like 'stages', 'accumulative phases' or 'over-lapping waves', there is general agreement that spelling development unfolds in predictable ways across time". Munro (2000) clearly outlines the developmental stages. He states that,

"At the earliest stage, the pre communicative stage (Gentry, 1982), children show an awareness that writing consists of written symbols that may or may not be like letters or numerals. At the second stage, the semi phonetic stage (Ehri, 1989; Gentry, 1982) they show a global awareness of the phonological structures of words, representing some of the sounds in them either by letters or letter names. The third stage, the phonetic stage, shows an awareness that all sounds in words can be represented phonetically by letters. At the fourth stage, the transitional stage (Gentry, 1982; Temple, Nathan, & Burris, 1982) spellers no longer rely on sounds alone to spell and begin to use devices such as silent marker to spell long vowels although the markers may sometimes be misplaced. This leads to fifth stage, at which the conventional orthographic representations of sounds in words are assimilated with irregular spelling patterns".

It is at this fifth stage that many poor spellers have difficulty. High frequency words with four or five letters often have irregular spelling patterns. If students are not familiar with the irregular spelling patterns then they will have difficulty recalling the orthographic representations. As educators if we are aware of the student's current capacity, and we know the developmental spelling stages, then we can identify the required teaching necessary to progress them to the next stage. Clay (1991) says "the essence of successful teaching is to know where the frontier of learning is for any one pupil on a particular task" (pg. 65). She says Vygotsky's (1962) refers to this as the "zone of proximal development" and suggests that an educator needs to know exactly what the student knows and what explicit instruction is needed to build on prior knowledge. Templeton (2003) says "to plan effective instruction, the teacher must know not only where the student presently is, but where he or she needs to go next; this calls for knowledge of the spelling system" (pg.11). It is important that teachers can determine how far an individual student has come on the path toward independent spelling. Assessment is important because it determines whether a speller is, as Templeton says, "phonocentric" and relies too heavily on 1:1 mapping of letters. It can determine if letter cluster knowledge is extensive and embedded. It can indicate whether a speller is transferring their knowledge from the known to the unknown. Munro says assessment determines whether they need work on the phonological structure of the words, work on the orthographic-phonemic links or work on automatising knowledge of letter cluster patterns. Assessment determines how competent an individual is at word level processing, a skill that is fundamental to being a proficient speller. Munro has developed a MLOTP model that examines the developmental stages of literacy. This model clearly outlines the word level knowledge required and suggests the strategies of how to take a speller's knowledge to the next level. Munro (2000) states that; "Children learn to spell unfamiliar words in two main ways; by internalising the orthographic patterns of written words by imitation and by synthesising their knowledge of letters and letter clusters with how the word is said in an analogy process".

Applying phonemic, phonological knowledge, visualization, analogy and morphemic knowledge can assist a student to cement the orthographic pattern in the mind. Recent research in relation to how the brain stores information has given educators another possibility of assisting those students who have difficulty storing information in their long term memory. A study completed by Laura-Ann Petitto (2008) indicates that several parts of the brain are engaged when spelling difficult words. The study shows that the brain needs both "phonetic segmentation as well as whole word representation" to process words. She also indicates that the part of the brain that is stimulated when spelling words is the areas that control auditory, meaning and print processing. Evidence also suggests that movement is important in helping shift information from the short term memory to long term memory. Engaging the parietal lobe with tactile or physical movement, the temporal lobe with auditory information and the occipital lobe with visual stimulation provides a good foundation for learning. If we are to assist spellers to retain the spelling patterns of high frequency words then we need to tune into their auditory, visual and kinaesthetic processing.

Along side this Munro suggests that emotional experience is another component that assists with storing information. The part of the brain that establishes long term memory passes through the emotional zone. If the experience of learning is fun and positive then it is more likely to be retained and stored in a way that can be easily retrieved when needed. Gardner (1993) suggests that utilising the students multiple intelligences is a powerful way to engage the learner and therefore more likely for the new learning to be retained. Westwood cites Moats, 1995; Leary & Johncock, 1995 in his explanation that "connectionist" models of proficient spelling have a close interaction between phonological, visual, semantic, kinaesthetic and morphological knowledge. The "connectionist" models advocate that the more frequently words or letter strings are seen and written, the more likely they are to be recalled and used appropriately.

If we can develop automatic and accurate recall of high frequency words by explicitly teaching visualization, analogy and mnemonic strategies through fun and engaging activities, in a multimodal format that encompasses the student's intelligences, then it is more likely that the targeted high frequency words will become cemented in the student's mental lexicon.

The present study aims to examine the effect of explicit teaching of high frequency words to a small group of 2/3 students, with a particular focus on using the strategies of self talk, visualization, analogy and mnemonic/meaning where appropriate. The students do not currently demonstrate the ability to use these strategies to assist with their high frequency word spelling. The hypothesis is that explicit teaching of high frequency words to Year 2/3 students will improve their accuracy in isolation and in prose.

METHOD

Design

This study uses an OXO design. The case study examines whether explicit teaching of high frequency words improves spelling accuracy in isolation and in prose. The study compares two groups of students, a control group and an intervention group. Ten students in total were involved in the study, five students in the control group and five students in the teaching group. The students were formally assessed pre and post intervention with the same assessment tasks. The pre assessments were administered to the whole class group, however the post assessment task were only given to the control and teaching group.

Participants

All students involved in the study attend a school in the southern region of Melbourne, Victoria. It is a relatively small school consisting of 175 students. The population is made up of predominately white anglo- saxon students with a small selection of students with E.S.L. background. All students in the study are from the same year 2/3 composite class. Their ages range from 6 years 11months to 8 years 2 months. All students involved in the study were identified at the start of the year as having great difficulty with accurate spelling of high frequency words. The Year 2/3 level teachers were concerned with the student's lack of

automaticity and accuracy in recalling the 100 most commonly used words in their everyday writing. Results from the State wide formal observational survey assessments carried out in February 2008, supported the teacher's concerns. The students involved in the study scored very low on their Peter's dictation (averaging a score of 49/100). Many of the 3, 4 and 5 letter high frequency words were spelt incorrectly.

Anecdotal observations by classroom teachers indicated that the students often had difficulty recalling correct spelling of high frequency words both orally and in their writing. Writing tasks were often laboured and drawn out due to student's inability to recall the basic sight words, the contextual words which they built their ideas around. Teachers observed that some students would get 'bogged down' trying to recall the correct spelling of simple word such as 'who'. Alternatively other students would write fluently but their writing would contain a large % of misspelt words, making their writing extremely difficult to read, and their message less potent.

Five participants were chosen to be in the explicit teaching group. For the purpose of this study, the students in the teaching group will be named: Student A, Student B, Student C, Student D and Student E. Student A and C are male and Students B, D and E are female. The teaching group is made up of 5 Grade 2 students.

The students in the control group were not exposed to the explicit teaching of the high frequency words and will be named Student F, Student G, Student H, Student I and Student J. Student G, H, L, J and K are female and student L is male. The control group is made up of 4 Grade 2s and 1 Grade 3 student.

Attempts were made to match the abilities of students in teaching and control group, however the year 2/3 teachers were very keen to observe how the students in the selected teaching group would develop as a result of explicit teaching. It is for this reason that the overall spelling abilities as indicated in the pre-test raw scores show that the students in the teaching group are lower than the control group. The teaching group is made up of 4/5 of the lowest achieving spellers in the class. Below is a table outlining a brief description and relevant background of the students in the teaching group.

Brief Description of Students in Teaching Group.

Name	D.O.B.	Current	Assessment Profile	Observations
Year /				
		Start		
		Year		
Student	06/01/2000	Yr. 2 / 2006	Feb 08 - RR Text Level 14	Dear whomelesical transited as composibility with about yoursel country
A	06/01/2000	Yr. 27 2006		Poor phonological knowledge, especially with short vowel sounds. Sound confusions letter e & i, a & u.
A	A go of pro		Pre Test March 08 HFW Test score: 50/100	Did not have automaticity of letter sounds
	Age at pre		Peter's Dictation: 48/100	
	testing:		SAST Raw score: 14	Oral language reluctant. Had difficulty forming complete sentence. ROL Score 37
	8.2 years			Difficulty with metacognition and retrieving his thoughts.
			SAST Spelling age 6 – 6.3 years.	Responds positively to encouragement
Ctordont	13/09/2000	V: 2 / 2006	Considered Critically low. Feb 08 - RR Text Level 14	Handwriting and fine motor skills are poor. Visual learner
Student	13/09/2000	Yr.2 / 2006		STAM – Difficulty retrieving information. Attention span poor.
В			Pre Test March 08	Metacognition issues. Has difficulty completing full sentences. ROL Score 34
			HFW Test score: 60/100	Learned helplessness, lack of confidence. Works well in small grp.
	Age at pre		Peter's Dictation: 42/100	Missed a great deal of school in 2007 due to illness; Glandular Fever.
	testing:		SAST Raw score: 14	Dad is often away. Low attendance rate.
	7.5 years		SAST Spelling age 6 – 6.3 years. Considered Critically low.	
Student	11/04/2001	Yr.2 / 2006	Feb 08 - RR Level 13	Displays uncertainty with Pronunciation of letters. F=V, M=N &b and d confusion
C	11/04/2001	11.27 2000		Completed several years of speech therapy. Parents don't think it has improved.
			Pre Test March 08 HFW Test score: 64/100	Cued articulation would be useful.
	Age at pre		Peter's Dictation: 48/100	STAM issues –poor concentration, very easily distracted.
	testing:		SAST Raw score: 23	Repeated instruction needed. ROL Score 35
	6.11 years		SAST Raw score. 25 SAST Spelling age 6.8 – 7.2 years	Poor fine motor skills. Kinaesthetic/Tactile learner
	0.11 years		Average Score	Started school young 4.8 yrs old. Responds to praise.
Student	07/09/2000	Yr.2 / 2006	Feb 08 -RR Text Level 16	Speech, Stutters occasionally and has slight lisp.
D	0770372000	11.27 2000	Pre Test March 2008	3rd child, 2 older brothers
			HFW Test score: 70/100	Lacks confidence, however responds to encouragement.
	Age at pre		Peter's Dictation: 57/100	Hesitant to take a risk. Does not like making mistakes.
	testing:		SAST Raw score: 22	Did not enjoy school last year.
	7.5 years		SAST Spelling age 6.7 – 7.1 years.	Reading Recovery 2007 and exited on Lv.16.
	, is yours		Considered Normal Range/ Low Average	Still currently operating at instructional level 16.
Student	24/06/2000	Yr. 2 / 2007	Feb 08 -RR Text Level 20	Dad is Sri Lankan, Mum is Phillipino.
E	= ., 00, 2000		Pre Test March 08	English is 1 st Language
_			HFW Test score: 84/100	A and U sound confusion
	Age at pre		Peter's Dictation: 60/100	Pronunciation of some words is unclear.
	testing:		SAST Raw score: 18	Shy. Knows and uses strategy of visualization successfully.
	7.9 years		SAST Spelling age 6.3 – 6.7 years.	Handwriting and formation of letters is messy and haphazard. Often rushes work.
	,		1 above Considered Critically low.	, , , , , , , , , , , , , , , , , , ,

Materials

The formal assessment tasks were administered to all students in the control and teaching group, pre and post intervention. The tests were specifically chosen to give dependent and independent information. The South Australian Spelling test gives a standardised result and approximate spelling age. The Peter's dictation provided information of students spelling of high frequency words in prose. The High Frequency word test indicated which words the students could spell. All tests gave insight into the type of spelling errors that were being made and allowed the researcher to ascertain at what stage of the spelling continuum the students were at. All 3 tests were able to be administered as a whole group. The pre test was given to the whole 2/3 class. However, due to circumstance and time restraints, the post test was only given to the 10 students in the teaching and control group. Materials used include the following:

*100 High Frequency Word List

The test was given to the whole class. The list of words was from Marcella Reiter's M100W list (Appendix C). Each word was read aloud twice by the teacher and students were given time to record their spelling. The results were recorded on a two sided proforms sheet that was numbered 1-50 on one side and 51-100 on the other side. Each number had a space/line next to it where the student could write the corresponding word (Appendix D).

*Peter's Dictation Task taken from 'Spelling in Context' (Independent Measure).

The test was given to the whole class. Clear, explicit instructions were given as outlined in Appendix E. The whole passage was read to the class and then reread slowly, a phrase at a time. Students were given time in between the phrases to record the dictation. Once the whole passage had been read in phrases it was read again as a whole and students were given time to complete any self corrections.

* SA Spelling Test – Peter Westwood (Independent Measure).

The test was given to the whole class. The lists of words were read one at a time and a corresponding sentence was given to put the word in context. The results were recorded on a one sided proforma sheet that was numbered 1-70. Students were given time at the end to check their work and mke any self corrections.

*Session Evaluation Record Sheets.

The evaluation sheet was designed to allow the teacher to note the change in skill, knowledge or ability and other significant observations during the eleven sessions, particularly in terms of recording if the student was beginning to demonstrate strategies and self talk to direct their metacognition when attempting a difficult word. Also note was taken of student's ability to correctly pronounce the new words and if the student had difficulty writing the word or verbally putting the word in context. As each new word was introduced, it was noted who had difficulty initially. This was particularly useful to see which students took longer to pick up new words. At the beginning of each session words learnt in previous sessions were revised. This allowed the teacher to observe who was retaining the high-frequency words that had been introduced previously. Anecdotal notes were taken. An observation of how students responded to the different tactile mediums was also noted. (Appendix B).

For an outline of the materials required for the teaching sequence, refer to Appendix A.

Procedure

The intervention was administered to five grade two children. The 11 sessions took place over a three week period. The sessions were conducted during the Literacy block and started at 9.00 a.m (except on one occasion when the lesson was taken in the afternoon 2.50 p.m. due to specialist timetable changes). Each session was approximately 45 - 50 minutes in duration. A record of attendance was taken at each session. Due to child absences and other occurrences at the school, only one student was present for the total 11 sessions. Two of the students were present for less than half of the sessions. Unfortunately make up lessons were not possible due to availability and time restraints. This was unfortunate but a confounding factor in a naturalistic study. Below is the chart indicating the student's attendance for each session.

Table 1: Student Attendance.

\bigcirc = Present

Blank = Absent

Data	Student A	Student B	Student C	Student D	Student E
Pre session Introduction and Orientation	\odot	\odot	\odot	\odot	©
Session 1 Wed 23/04/08	\odot	\odot		\odot	
Session 2 Thurs 24/04/08	<u></u>	\odot	\odot	\odot	:
Session 3 Mon 28/04/08		:		Late 9.10 a.m.	\odot
Session 4 Wed 30/04/08			Late 9.10 a.m.	\odot	\odot
Session 5 Thurs 01/05/08			\odot	\odot	\odot
Session 6 Fri 02/05/08			Late 9.30 a.m.	Late 9.10 a.m.	©
Session 7 Tues 06/05/08				:	©
Session 8 Wed 07/05/08				\odot	\odot
Session 9 Thurs. 08/05/08	\odot	\odot		\odot	\odot
Session 10 Fri 09/05/08	<u></u>	<u></u>		\odot	©
Total	5/11	6/11	5/11	11/11	10/11

The teaching group were withdrawn from the class and worked as a small group, on most occasions, in the library. However, on 3 occasions the library was unavailable, so the sessions were held in the staff meeting room. This was not ideal as interruptions disrupted students concentration and there was less space to complete the kinaesthetic activities. The lessons followed the "whole, individual, whole" format. The group started together with explicit teaching of the new word, they then participated in quick one minute automatising activities on their own. At the end, the group came together as a whole and articulated the new learning. This process was repeated twice in each

session. The specific detail of the sessions is outlined in Appendix A. The objectives for the intervention program were for the students to:

- Be aware of our shared goal ie; to improve the spelling of HFW in our writing
- Say and spell the target word at the point of introduction
- Write the target high frequency word in isolation and in prose accurately and automatically.
- Engage the temporal, parietal and occipital lobes of the brain through visual, auditory and kinaesthetic activities. e.g. Making the shape of the letters in the word with our body whilst spelling it aloud.
- Locate the target word in isolation and in prose in different places on a chart and in a sentence.
- Accurately make the target word using different tactile materials e.g. play dough, coloured string, rubber letters and magnetic letters.
- Accurately write the target word on different tactile surfaces e.g. magna doodle, shaving cream, whiteboard, sand tray, using a water brush and writing on a small blackboard.
- Make progress within a supportive, positive and fun environment.
- Use self talk and articulate the strategies used by a good speller to work out unknown words.

In each session two new target words were introduced, see schedule in teaching sessions in Appendix C. The high frequency words that were targeted were specifically chosen and identified to be in the student's zone of proximity. From the testing results, all high frequency spelling errors were analysed and a clear list of words that the whole group could work on became apparent (Appendix F). The words that were chosen could be divided into three groups. High frequency words that could be 1:1 phonetically mapped e.g 'must'; words that needed to be visualized (and/or use mnemonics) due to more difficult spelling patterns e.g. 'said''; and thirdly, words that lent themselves to using the analogy strategy. e.g. if the students correctly spelled 'some' they could be shown how to work out 'come'. Due to the fact that we were working in a small group, it was important that all words chosen extended every child's repertoire of high frequency words. However, if words they already knew could be employed to assist them to learn a new word then they were included as this provided an extremely powerful teaching tool. Following is the criteria used for choosing the high frequency words:

- 1. Incorrectly spelt by all or nearly all of the students
- 2. Incorrect but had a close approximation to the correct spelling
- 3. Similar to other words that the students had correctly spelt e.g. my by

- 4. Words that would lend themselves to analogy, i.e. words could be generated from it
 - \triangleright e.g. could \rightarrow would, should.
 - before → be, for, or (Even though some students could spell 'be', 'for' and 'or', they learnt the skill to look for little words in words, however those who had incorrectly spelt 'be', 'for' and 'or' were exposed to these three words at same time.)

The 100 most frequently used words were read at the beginning of every session. Once words had been explicitly introduced they were revised at the beginning of each teaching session. They were said, read and written and used in a game. Each session followed a similar format to develop a sense of familiarity; however the rotation activities were varied and designed to be stimulating, fun and engage a variety of multiple intelligences. The sessions 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). The students were encouraged to put the new words into sentences to demonstrate their understanding of the meaning. The word level section of John Munro's (2005) MLOTP model was slightly adjusted to be appropriate for reading/ recalling a word and writing it. It was used effectively to cue the students on what to do before, during and after trying to write a word. The slightly adjusted framework promoted the necessary skills required to work on the orthographic aspect of the new words. Below is an outline of how the MLOTP Model was used.

Before writing words, activities were designed to work on the student's phonological knowledge.

Before beginning to write the words, activities were designed

- a) To develop and automatise relevant phonological knowledge. This included students having to:
 - ❖ Say accurately each Target word that was introduced;
 - Discuss any familiar or shared sound patterns.
 - ❖ 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;
- b) To ensure students comprehended the meanings of the words. This included:
 - Using the target word in a sentence to show its meaning.

- c) To assist students to learn relevant phonemic knowledge. This included:
 - Separating words into separate sounds; e.g. standing up on tip toes for each sound heard
 - Substituting consonants or vowels in a spoken 1-syllable word i.e. look/book etc., using Marcella Reiter's word strips to generate new words.

While learning to read/write words, activities were designed to; work on 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 aloud
- d) write a sentence to show its meaning
- e) identify word in prose
- f) visualize each word and aspects of the pattern
- g) where possible teach meta-phonemic knowledge directly i.e. for words like *look looks looked looking, come comes* etc.

After learning to read/write words, activities were designed to; work on learning to write the word automatically so that letter-sound links are recalled automatically. These activities were designed to be fun and engage the brain. They provided opportunities for students to use their multiple intelligences. Most activities required auditory, visual and kinaesthetic input. Some activity examples are:

- a) Memory activities/games;
- b) Write the word rapidly in a variety of colours.
- c) Use our bodies to physically make the shape of the word
- d) Create Mnemonic triggers to assist with difficult high frequency words
- e) Make a song about a difficult word e.g. What What hat will you where at the party?
- f) Make up a cheerleader song to spell the word, placing your body in the form of the letters e.g. a is a body letter, so pull all legs/arms in, b is a tall letter, so arms in the air, g is a hanging down low letter so legs are stretched out/ tippy toes.

In each session there were generally five activity stations. The children worked as quickly and carefully as possible at each activity. After one minute, time was called and the students rotated to the next activity. Once all students had experienced the activities and practiced automatising

the new high frequency word, then the group came back together and wrote the word 3×0 a whiteboard, then wrote the word into a dictated sentence. Each child was then asked to clearly articulate which strategy (analogy, visualizing, mnemonics, morphographic) they employed to help them recall the spelling of the new word.

RESULTS

The results clearly indicate that explicit teaching of high frequency words improves student's accuracy in spelling in isolation and in prose. All students in the teaching group improved their results in all three tests, thus indicating that the explicit teaching had impacted not only on their ability to recall correct spelling in isolation but more importantly they were able to transfer their knowledge to their writing. It must be noted that the growth in accurate spelling of words in isolation is higher than the growth in accurate spelling of words in prose.

Every child in the teaching group improved their accurate recall of high frequency words in isolation. The following graph indicates the individual growth for each child in the teaching group. The minimum gain was an improvement of 7% and the maximum gain was an improvement of 21%.

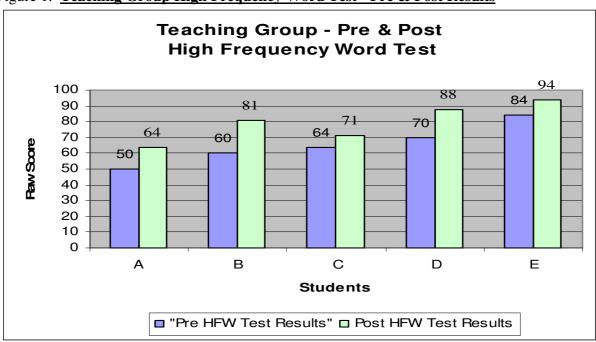


Figure 1: Teaching Group High Frequency Word Test - Pre & Post Results

Figure 2: Student Attendance

	Student A	Student B	Student C	Student D	Student E
Attendance					
	5/11	6/11	5/11	11/11	10/11
HFW					
Improvement	+ 14	+ 21	+ 7	+ 18	+10

One of the confounding factors in the action research was that several of the students were unable to attend all sessions. On close inspection there does not appear to be a direct correlation between the number of sessions attended and post test scores. Student D was present at every session and increased her accurate spelling from 70 to 88 high frequency words; this is an increase of 18%. Student E who attended 10/11 sessions made an increase of 10 new words. An interesting observation is that her pre test score of 84 was much higher to begin with. Her high frequency word improvement of 10% included many of the more complex 5 letter high frequency words. Words with irregular spelling patterns such as 'right,' which she had previously incorrectly spelt as 'riaet' were now consolidated. Accurate spelling of these words would indicate that she is operating at the 'transitional' stage of spelling. Westwood (2005) generalizes that students at this stage rely more on visual strategies rather than phonetic strategies alone to check the accuracy. The spelling error of "siad" would be more likely in a transitional speller, whereas "sed" would be indicative of a phonetic speller.

Analysis of Student A's pre test results indicate that he is at the phonetic stage. The 14 words he improved on were mostly made up of 2 and 3 letter words that require 1:1 mapping of sounds to letter. Both students improved their accuracy within their 'zone of proximity'. An assumption could be made that although Student E did not attain an increase in as many high frequency words as student A, the type of words that she did improve were more complex and reflective of a more advanced spelling stage.

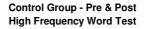
Student B attended 6 / 11 sessions and achieved an increase of 21 high frequency words. It must be noted that when student B attended the sessions she was focused and animated about her learning. There were lots of expressions of "aaah!" and "I get it!" A cross check of her results indicate that she retained correct spelling of all words, except one (could) that were explicitly

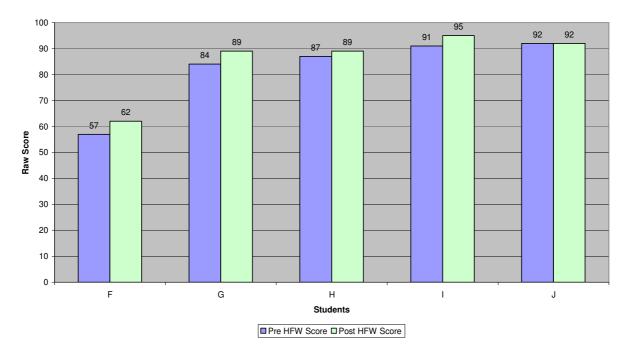
taught in the sessions she attended. This indicates that she benefited from the explicit teaching strategies.

Student C's attendance was very sporadic and a sense of continuity was not achieved. He was late for 2 of the five sessions he attended, thus missing the consolidation and revising component of the session. In spite of this he still made improvement of 7%. The student responded extremely well to the tactile and kinaesthetic activities and thought the activities 'fun'. Student C had poor fine motor skills so writing words with paint brushes or with his finger in shaving foam was a lot easier than manipulating a pencil to paper. The students spelling results indicate that he is at a borderline phonetic/transitional stage. It is important to note that Student C's articulation is poor and words were often pronounced incorrectly e.g. 'ov' for 'of', this is represented in his spelling errors.

In contrast, not all students in the control group improved their results of spelling high frequency words (HFW). Students H improved by two words and Student J's test result remained the same, thus implying no improvement. The maximum gains were made by student F and G, both making a 5 % increase in high frequency word accuracy. Student F's results could be compared with Student A from the teaching group. Both students had a starting point in the 50's. Student A was exposed to 5/11 teaching sessions and made an improvement of 14 words. Student G did not receive any explicit teaching and improved by 4 words. This is a difference of 10 words. This result implies that explicit teaching of the high frequency words has had a direct positive impact on both the 'phonetic' and 'transitional' speller in the teaching group. It is important to note that the minimum increase of an individual student in the teaching group was 7% compared with the maximum increase of 5 % in the control group.

Figure 3: Control Group High Frequency Word Test - Pre & Post Results





As mentioned previously the starting points for the teaching group were generally much lower than the control group. The teaching group contained 5/6 of the poorest spellers in the grade. The graph below indicates the average number of high frequently words spelt correctly by the teaching group compared to the average in the control group. The Pre and Post averages show clearly that the average score in the teaching group increased by 13 % compared to a 3 % increase in the control group. This shows a much greater gain was produced as a whole after explicit teaching of high frequency words using the strategies of visualization, analogy and mnemonics. Although the post high frequency word test average results of the teaching group are still below the control group, it is clear that significant gains have been made as a whole.

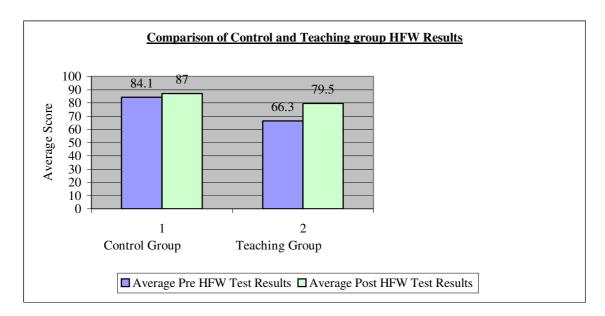


Figure 4: Control and Teaching Group Averaged HFW Test Results

The South Australian Spelling Test (SAST) was given as an independent test. It provided a standardized result and indicated the current spelling age of each student. The Pre test results indicated that two out of the five students in the teaching group were considered to be "critically low", and another was border line (1 score of critically low).

After the intervention all students in the teaching group made gains in spelling age of approximately 4 months or above. Students B and E improved their spelling age by approximately 7 – 9 months. This improvement correlates with their HFW test results where they also showed vast improvement. Student B moved from being 7 below normal range to being only 1 below. Student A improved by 4-5 months. The errors that student A displayed indicated a vowel confusion. Further explicit instruction targeting short vowel sounds would greatly benefit this student and impact on his spelling results.

Student D made an improvement of 2 words which translates to an improvement of 3 months in spelling age. Student C's increase of 3 words is equivalent to 5-6 months growth and shifts him from the average to the above average band. This is quite a phenomenal growth after just 5 sessions. Initially there was doubt that such improvement could be attributed to the explicit teaching in the 5 sessions, however when you compare the results of a similar standard student in

the control group i.e. Student G who also scored 23 on the pre test, we can clearly see the difference in growth. Student G who did not receive explicit teaching over the same period of time has not improved; in fact they have decreased their score by 1.

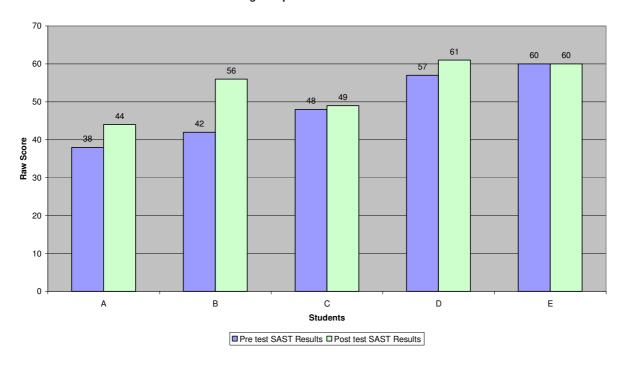
The table below indicates the teaching and control group Pre and Post Independent SAST results.

Figure 5: **South Australian Spelling Test Results**

	Student Details	SAST (Raw Score)		SAST Sp. Age		Growth	Test Status		Age at Testing
ID	D.O.B.	Pre	Post	Pre	Post	+ or -	Pre	Post	Pre
А	6/01/2000	14	19	6 - 6.3 yrs	6.4 - 6.8 yrs	+4-5 months	Critically Low	Critically Low	8.2
В	13/09/2000	14	21	6 - 6.3 yrs	6.6 - 6.11 yrs	+6- 8months	7 Below Normal Range	1 Below Normal Range	7.6
С	11/04/2001	23	26	6.8 - 7.2 yrs	7.1 - 7.8 yrs	+5-6 months	Average Score / Normal Range	Above Average / Normal Range	6.11
D	7/09/2000	22	24	6.7 - 7.1 yrs	6.10 - 7.4 yrs	+3 months	Normal Range	Normal Range	7.6
Е	24/06/2000	18	24	6.3 - 6.7 yrs	6.10 - 7.4 yrs	+7-9 months	4 Below Normal Range	Normal Range	7.9
F	8/04/2000	19	15	6.4 - 6.8 yrs	6.0 - 6.4 yrs	-4 months	5 Below Normal Range	Critically Low	7.11
G	13/09/2000	23	22	6.8 - 7.2 yrs	6.7 - 7.1 yrs	-1 months	Normal Range	Normal Range	7.6
Н	10/02/2000	30	26	7.8 - 8.7 yrs	7.1 - 7.8 yrs	-6-11 months	Average Score/ Normal Range	Normal Range	8.1
I	14/04/2000	31	32	7.11 - 8.10 yrs	8.1 - 9.1 yrs	+2-3 months	Above Average/ Normal Range	Above Average/ Normal Range	7.11
J	4/02/2001	30	27	7.8 - 8.7 yrs	7.2 - 7.11 yrs	-6-8 months	Above Average/ Normal Range	Above Average/ Normal Range	7.1

Figure 6: Teaching Group - South Australian Spelling Test Pre & Post Test Results

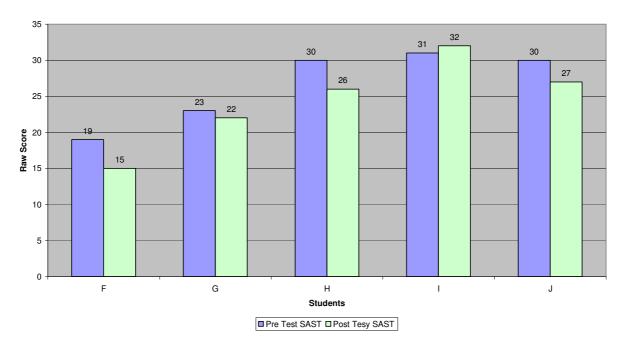
Teaching Group Pre & Post SAST Results



The growth shown by the individuals in the teaching group is even more significant when you compare the results with the control group. The control group's post test results indicate that 4/5 students made no improvement and in fact their results went backwards. Only one student made an improvement of 1 word thus translating into a gain in spelling age of 2-3 months.

Figure 7: Control Group - South Australian Spelling Test Pre & Post Test Results

Control Group Pre & Post South Australian Spelling Test (SAST)



Peter's Dictation

Four of the students in the teaching group made an improvement in their Peters Dictation results. Student E's results remained the same. Student C's results only improved by 1 word ie. 1% increase. Student D had a 4 % increase. The biggest improvement of 8% was made by student B, closely followed by student A with 6 %. Both students A and B would be categorized as phonetic spellers and both have been able to use the strategies of analogy, visualization and mnemonics to assist them with the more irregular high frequency words in Peter's dictation. This indicates that they are retaining the knowledge that they have gained about HFW in isolation and are beginning to transfer their knowledge to prose writing. On close analysis of the errors made by the teaching group, it becomes evident that although there spellings were not accurate they had made much closer approximations. Many more of the errors in the post test would be categorized as 'plausible' in comparison to the pretest results where many of the errors were in the 'invented' or 'random' category e.g. Student E - searched = (pre) 'saot' - (post) 'sorcht'. Student B - behind = (pre) 'bhd' - (post) 'be hend'

Figure 8: Teaching Group - Peters Dictation Pre & Post Results

Teaching Group - Pre & Post Peters Dictation Test Results

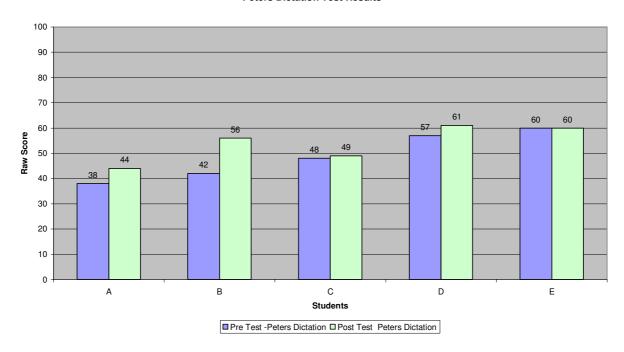
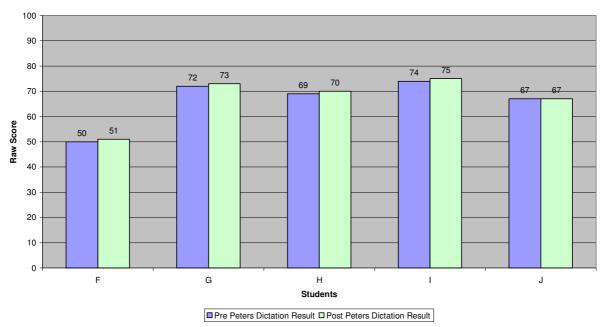


Figure 9: Control Group - Peters Dictation Pre & Post Results

Control Group - Pre & Post Peters DictationTest Results

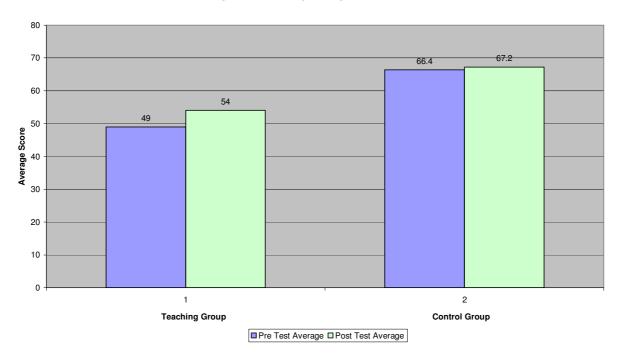


The control group results for Peters Dictation indicate that 4/5 students improved their scores by 1 word (1%). Student J's results remained the same.

It must be acknowledged that the average starting point for the control group was higher than the teaching group. Peters Dictation contains 27 of the 100 most used words. The other words are more complex and require a higher level of word competency. In order to get higher scores the students would need to have a greater knowledge of prefixes and suffixes, vcv regular and irregular spelling patterns.

If we look at the results average of the teaching and control group we can see that overall there was a greater increase of 5% in the teaching group compared to a .8% in the control group. This improvement in their use of HFW in prose is promising and indicates that if the intervention was continued that further gains would be made.

Figure 10: <u>Teaching and Control Group Averaged Peters Dictation Results</u>



Teaching & Control Group Average - Peters Dictation

DISCUSSION

The results of this study indicate support for the hypothesis and research. This suggests that explicit teaching of high frequency words improves spelling accuracy in isolation and in prose. Assisting students to really look at and study high frequency words has been an important contributor in the teaching group's successful result. As Lyons (2003) suggests "Children must be

taught how to look, what to look at and what to look for" (pg. 97). The explicit teaching of visualization, analogy, mnemonics and morphographic strategies has assisted students to store the irregular spelling patterns of some high frequency words in long term memory.

The ability to read and articulate the high frequency words was an important element in the teaching sessions. The 100 most frequent words were read at the beginning of each session with an emphasis on clear pronunciation. It was noted that at the beginning of the intervention all students had difficulty with several words in the 100 most used word list. By the end of the 11 sessions each child could fluently read the list with relative confidence.

The students' improvement of high frequency words in isolation and in prose is a result of the specifically designed teaching sessions that moved the students from the known to the unknown. The selection of high frequency words targeted were words within their zone of proximity. Each session was carefully scaffolded and built on prior knowledge. The students were explicitly taught the strategies to use and given opportunities to utilize their new skill. The activities promoted fun and endeavoured to develop their lexical storage of word images or letter patterns, so they could be retrieved and written instantly by sight correctly and without conscious effort. Westwood (2005) says that Moats(1995) concludes that "spelling improvement can be brought about in poor spellers if proper instruction is carried out systematically over a long period of time, and the spelling instruction is tailored to match the developmental level of the student's word knowledge".

A powerful teaching tool for the teaching sessions and for the future would have been visual reminders/posters that highlighted the "self talk" of what a good speller says when they come across a difficult word. Having this visual prompt would have assisted the students who had difficulty articulating their thoughts in full sentences. In this study it was pleasing to hear the students discussing the strategies that they preferred to employ to remember an irregularly spelt high frequency word. They particularly enjoyed creating their own mnemonics for words such as 'could' and 'said' and cleverly incorporated their own names or friends names in the acronyms.

There were other factors that also impacted and influenced the teaching group's results. An underlying focus and expectation that students articulate their learning was important.

Observations over the period of three weeks definitely saw an improvement in the students' ability to articulate their metacognition, the what, how and why of their actions. This needed a great deal of explicit teaching and encouragement as it was completely new to the students. When the students reasoned and processed what they did as a learner they engaged the frontal lobe of the brain and in doing so increased the chances of the information being stored in long term memory. If students can use their own 'self-talk' to direct their thinking and use an investigative approach to tricky spelling words, then they are on the path to becoming a proficient learner. Over the 3 weeks a definite improvement in confidence and talking about the best strategy to use on words was noticed. In the future, an introduction of visual cues to prompt appropriate self-talk would be beneficial. Continued practice and encouragement of students talking about their understanding of phonological and orthographic patterns and applying their knowledge to words would be extremely empowering.

In his article about 'How learners learn: what teachers need to do to be effective' Munro (1999) highlights the requirements for learning. He stresses the importance of students articulating their own learning. Another area he discusses is the importance of students needing to know the 'purpose for learning'. This was an important aspect of the teaching sessions in this study, the students were asked at the beginning of each teaching session what the shared goal was and why we were doing it. i.e: to learn how to spell the 100 high frequency words, so we can use them accurately in our writing. Knowing this gave the students a sense of purpose and tried to link what we were doing with their everyday work in class.

An in depth knowledge of the spelling stages and system was crucial to assisting students to move along the spelling continuum. Henderson (1990) says that 'most students progress from a pattern of spelling of multiple spelling errors and invented spelling in the early grades to the approaching of near- accurate spelling by grade four. He says some students plateau at lower developmental levels. It is interesting that many of the students in the control group made little, if not any improvement over the two month period from pre to post testing. This would support Henderson's opinion about students reaching a plateau. The students in this study are in danger of stagnating if they are not taught to explicitly study words. Templeton (2003) believes that educators must help students to understand and make connections within the spelling system.

This notion is exemplified in the current study. It is clear that with direct intervention and explicit teaching connections were made and students progressed.

The importance of pronunciation and handwriting and their impact on spelling became apparent whilst working in the small teaching group. If students could not articulate the correct sounds within the words they were attempting to spell, then they had little hope of spelling them correctly. Two of the students in the teaching group had short vowel confusions and needed to consolidate their phonemic knowledge in this area. Other students had developed incorrect pronunciation of letters. Student C in the teaching group made the sound of 'f' when he saw a 'v', similarly he did not differentiate between the 'm' and 'n' sounds. Until these basic word level skills are addressed further progression for the students will be difficult. Hoffman (1990) as cited in Westwood (2005) suggests that "children with articulation or phonological problems sometimes misspell words containing the specific sound units with which they have most difficulty". Munro's MLOTP model has oral language as the foundational level from which all other levels springboard. It is imperative that intervention addresses the oral language deficit. Clay (1991) believes oral language is paramount and suggests that Vygotsky also placed a great deal of importance on the role of language. He believed that the "acquisition and use of language is a primary component of children's developing intellectual abilities".

Similarly, the influence of handwriting may have had an impact on the students' ability to visualize a word. If letters were unclear or unreadable then this would impact on the brain's storage of the word. Incorrect formation of letters and unclear letter formation is not conducive to imprinting the word image for the learner. Student A and C in the teaching group had very poor fine motor skills and their handwriting was extremely immature and difficult to read. Student E had very rushed handwriting where many letters were not correctly formed e.g. a looked like u. It is interesting that Students A, C and E also all had articulation issues. The results of these students showed improvement, although not as impressive gains as Students B and D in the same teaching group. This would make an interesting further study. Schlagal (2002) states that "what contemporary research reveals is that although these aspects of literacy (handwriting and spelling) are not ends in themselves, they are none the less foundational. Serious deficits in one or both of these skills can undercut success to writing and reading"(p.180)

.

In this study an observation was made about the importance and need for immediate feedback to the students whether positive or negative. In the Peter's Dictation test, Student F from the control group wrote the word 'him' as 'hem' and 'his' as 'hes' on four occasions. This was in one piece of writing. In this instance it was not a case of "practice makes perfect" but more "practice makes permanent". Unfortunately every time he wrote it, it was being stored incorrectly in his mental lexicon. These errors need to be immediately reversed and replaced with correct spelling. Sadly in the classroom this does not always happen and students are left to write the same word incorrectly over and over, unless a simple intervention is put into place. The intervention that was utilized in this study produced very good results and if it continued for a longer period one would expect the progress of each student to be more significant. The success of the intervention lies in the fact that the targeted group was small (five students) and that direct, explicit teaching occurred 3-4 times per week. Although the sessions were 45 - 50 minutes they were fast paced and consisted of revision activities at the beginning of each lesson. It would be possible to decrease the time to 25 - 30 minutes, especially as the routine becomes familiar.

All sessions involved the students being actively involved in their own learning, and students were asked to articulate what they had learnt. The emphasis for the teaching was on engaging the brain through fun and interesting visual, auditory and kinaesthetic activities in order to encourage long term lexical storage. This combination of knowledge of the spelling system and how learners learn was invaluable in the planning and teaching of this study. The intervention would need to take place over an extended period of time to bring about further change however the trends indicated in the results to date are encouraging.

The results clearly indicate that explicit teaching of high frequency words to year 2/3 students improves their accurate spelling in isolation and in prose. The explicit teaching of the strategies of pronunciation, visualization, analogy, mnemonics had a direct impact on the teaching groups results. An area to investigate further would be how to incorporate this style of word study into the classroom as part of normal programming. What would be the result if we could engage the brain to build our word lexicon and ignite a sense of enthusiasm about words and how phonemic, phonological and morphographic knowledge all interrelate? Could a 20 minute section of the literacy block be dedicated to learning high frequency words? What impact would this have on

student's everyday writing and self efficacy as a speller? We know that the high frequency words are the 'building blocks' of our writing, so we should be aiming to cement them in the early years.

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Appendix A: Teaching Session Outlines

SESSION 1 ACTIVITY 23/04/08

SESSION 1 ACTIVIT	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY			
23/04/08			
Revision of Goal	Get Children to articulate our		words on cards
"to learn the High	shared goal and reason why	2 mins.	must
Frequency Words"	we are learning the HFW's.	2	before
Why	l l l l l l l l l l l l l l l l l l l		
"Because we use	1. teacher introduces the 100		whiteboards
them often in our	HF words. Together read		(individual) whiteboard
reading and writing".	aloud the 100 HFW.	1 min.	markers
	2. Game: Tic Tac Toe with		
	HFW.		words on large card (for word
Introduce new	3. Introduce 3 new		wall)
words.	words.M100W cards, students		playdough
	spell the words, trace with	2 min	white paper
	their finger. Focus:		Magnetic letters
	Visualisation word shapes.	3 mins	Magna doodle
	4. students write the words		Wagna doodic
	onto whiteboards three times,		
	read the words. Trace the		
	shape.		
Rotational Activities	5. Rotational activities: A		
to reinforce new	student at each station.		
word.	 highlighter words 	1 min	
	 playdough 		
	magnetic letters /		
	magnadoodle		
	6. Come back as a group.		
	Make shape with body. Write	(0.1	
	word again on whiteboard/	(3 x 1	
Nieuwana dia manana	word shape. Then write in a	min)	
New word in prose.	sentence in booklet.	O main	
	I must do my work.	3 min.	
		3 min.	
	Repeat steps 5 & 6 for 2 other	(2 x 6	Analogies:
	words. You go before me.	mins.)	Must – Just
	I like the other toy.	12 mins.	IVIGGE GGGE
	7. Get children to say when I		Before – for, be, or
	imagine the shape of the word		
	in my head it helps me recall		
	it. Why are we learning the		
	High frequency words.	3 mins.	

SESSION 2 ACTIVITY 24/04/08

SESSION 2 ACTIVITY SESSION 2	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY		_	
Th 24/04/08			
Revision of Goal	Get Children to articulate		New words on
"to learn the High	our shared goal and reason	2 mins.	cards
Frequency Words"	why we are learning the		other
Why	HFW's.		right
"Because we use	1. Revise HF words.	1 min.	whiteboards
them often in our	Together read aloud the		(individual)
reading and writing".	M100W chart.	4	whiteboard
	2. Revise yesterdays	1 min	markers
Introduce concept of	words, say, spell aloud.		words on large
Introduce concept of	Write on W/B.		card
analogy. Good spellers use what	Focus: Analogy – If you know <u>must</u> then you also		Shaving Cream
they know to work	know just, rust etc.	3 mins	white paper
out new words.	Use M100W strip cards to	3 1111113	Highlighters
out new words.	demonstrate. Write new		Magnetic letters
	(úst) words on W/B.		Sticky letters
	3. Introduce 2 new words.	2 mins.	Magna doodle
	Students spell the words,		String
	trace with their finger, write		Onset/rime strips
	in the air. Visualise word		
	shapes. Make the type of	3 min	
Rotational Activities	letter with body laying down.		
to reinforce new	4. Students write the words		
word.	onto whiteboards x3, read		
	the words. Trace the shape.		
	5. Rotational activities: A		
	student at each station.	(6 x 1 min)	
	highlighter words		
	write in shaving		
	cream		
	 magnetic letters 		
New word in prose.	 Stick on letters 		
	 Whiteboard 	3 min.	
	 String letters 		
	6. Come back as a group.		
	Make shape with body.	(2x9=18min)	
	Write word again on	(289-1011111)	
	whiteboard/ word shape.		
	Then write in a sentence in		
	booklet. I like the other toy.		
	Repeat steps 5 & 6 for other		
	words. You are right.		

	7. Get children to say when	3 mins.	Analogies: Before – be, for,
Get Children to articulate new learning.	I know a word I can use it to work out other words & Why are we learning the High frequency words.		or, more Other – mother, brother, another Right – night, light,
			sight,

SESSION 3 ACTIVITY 28/04/08

SESSION 3 ACTIVIT		TIME	MATERIALC
SESSION 3	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY			
M 28/04/08			
Revision of Goal	Get Children to articulate		words on cards
"to learn the High	our shared goal and reason	1 min.	More(before)
Frequency Words"	why we are learning the		5/6S
Why	HFW's.		About (out) 5/6S
"Because we use	1. Revise 100 HF words.	1 min.	Said 5/6S
them often in our	Together read aloud the M100W chart. Game: Tic	2 min	whiteboards
reading and writing".	Tac Toe with HFW.	2 111111	(individual)
	2. Revise previous words,	3 mins	whiteboard
Introduce new	say, spell aloud. Write on	0 1111110	markers
words.	W/B. Get children to		words on large
	generate any new words.		card (for word wall)
	3. Introduce 3 new words.	1 min	playdough
For some words you	M100W cards. Students		white paper
need to use some	spell the words, trace with		Magnetic letters
strategy to help you	their finger.		Magna doodle
remember them.	Focus: Mnemonics		
	4. Explicit demonstration of	3 min.	
	the wrong way students		
	wrote 'said' Discuss a		
Rotational Activities	mnemonic for said. Students		
to reinforce new	write the word correctly onto whiteboards three times,		
word.	read the words. Trace the	3 min.	
word.	shape.	0 111111.	
	5. Rotational activities: A		
	student at each station.		
New word in prose.	 String words x2 		
	 Letters stencils, trace 		
	around and colour. x2		
	 Whiteboard (colours) 	_	
	x2	2 min	
	6. Come back as a group.		
	Make shape with body.		
	Write word again on		
	whiteboard/ word shape.		
	Practice Mnemonic. Then		
	write in a sentence in booklet.		
	I said I can do it.		
	Repeat steps 5 & 6 for 2	(2 x 6	Analogies:
	other words. Can I have	mins.)	About – out
	more.	12 mins.	, would but

Get students to articulate learning.	It is about me. 7. Get children to say when I imagine the shape of the word in my head it helps me recall it. I can use mnemonics to help me remember difficult words. Why are we learning the High frequency words??	3 mins.	More - or
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SESSION 4 ACTIVITY 30/04/08

SESSION 4 ACTIVITY SESSION 4	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY	TASK DESCRIPTION	IIIVIL	WAILNIALS
W 30/04/08			
Revision of Goal	Cat Children to articulate		worde on sorde
"to learn the High	Get Children to articulate our shared goal and reason	2 mins.	words on cards Could
Frequency Words"	why we are learning the	2 1111115.	0 0 0 1 1 0 1
Why	HFW's.		Here 4/6 L,S
"Because we use	1. Revise 100 HF words.		Our ? 5/6 I
them often in our	Together read aloud the 100		whiteboards
reading and writing".	HFW. Word shape game	1 min.	(individual)
	with previous sessions		whiteboard markers
	words.		words on large
Introduce new	3. Introduce 3 new		card (for word
words.	words.M100W cards.		wall)
	Students spell the words,	2 min	playdough
	trace with their finger.	O mino	white paper
	Focus: Visualisation word	3 mins	Magnetic letters
	shapes. 4. Students write the words		
	onto whiteboards three		<u>TEST</u>
	times, read the words. Trace		other
Rotational Activities	the shape.		right
to reinforce new	5. Rotational activities: A		said
word.	student at each station.	1 min	about
	 highlighter words 		out before
	 Sand/Glitter Tray 		belore
	magnetic letters /		for
	magnadoodle		could
Now would in pugge	6. Come back as a group.	(0 × 1 min)	or
New word in prose.	Make shape with body.	(3 x 1 min)	mother
	Write word again on	3 min.	light
	whiteboard/ word shape. Then write in a sentence in	3 111111.	should
	booklet.		more
	I could do it.		must
	I am here.	3 min.	here
	This is our toy.		just rust
			would
			shout
	Repeat steps 5 & 6 for 2	(2 x 6	Analogies:
	other words. You go before	mins.)	Could – would,
	me.	12 mins.	should
	I like the other toy.		
	7. Get children to say when I		
	imagine the shape of the		
	word in my head it helps me		

recall it. Why are we learning the High frequency words.	3 mins.	
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SESSION 5 ACTIVITY 01/05/08

SESSION 5 ACTIVIT	TASK DESCRIPTION	TIME	MATERIALS
	TASK DESCRIPTION	I IIVIL	WAILNIALS
ACTIVITY			
Th 01/05/08			
Revision of Goal	Get Children to articulate		words on cards
"to learn the High	our shared goal and reason	1 min.	Which
Frequency Words"	why we are learning the		When 3/6 c,c,l
Why	HFW's.		Why
"Because we use		1 min.	is it?
them often in our	1. Revise the 100 HF words.		whiteboards
reading and writing".	Together read aloud the 100	4 main	(individual)
	HFW.	4 min	whiteboard
Letus du se le seu	2. Revise past words, say,		markers
Introduce new	spell aloud. Write on paper	O mina	words on large
words.	in booklet.	3 mins	card (for word
	3. Introduce 3 new words.	1	wall)
	M100W cards. Students	1 min	playdough
	spell the words, trace with	2 min	white paper
	their finger.	2 111111	Magnetic letters
	Focus: Mnemonics-		Magna doodle
	'wh'question words – is it?		M100W cards
Rotational Activities	4. Students write the words		
to reinforce new	onto whiteboards three		
word.	times, read the words. Trace	(3 x 1 min)	
Word.	the shape. Make with body. 5. Rotational activities: A	(0 X 1 111111)	
	student at each station.		
New word in prose.			
Trow word in proces.	M100W cards say &	3 min.	
	spell	0	
	highlighter words magnetic letters		
	magnetic letters Come back as a group		
	6. Come back as a group. Make shape with body.		
	Write word again on		
	whiteboard/ word shape.		
	Then write in a sentence in		
	booklet.		
	Which is it?		
	Repeat steps 5 & 6 for 2	(2 x 6	Analogy:
	other words. Why is it?	mins.)	Why – my,
	When is it?	12 mins.	by(Josh)
	7. Get children to say when I		When – then, hen
	imagine the shape of the	3 mins.	
	word in my head it helps me		
	recall it.		

SESSION 6 ACTIVITY 02/05/08

SESSION 6 ACTIVITY SESSION 6	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY			
F 02/05/08			
Revision of Goal	Get Children to articulate		words on cards
"to learn the High	our shared goal and reason	1 min.	Where
Frequency Words"	why we are learning the		Who 3/6 c,I,s
Why "Because we use	HFW's.	1 min.	What 4/6 J,S
them often in our	1 Daviss 100 UE wards	1 111111.	is it?
reading and writing".	1. Revise 100 HF words. Together read aloud the 100		whiteboards
rodding dind witting r	HFW from M100W chart.	2 min	(individual)
	2. Game: Tic Tac Toe with		whiteboard
Introduce new	HFW learnt to date (M100W	3 mins	markers
words.	cards)		words on large
	3. Introduce 3 new words.		card (for word wall)
	M100W cards. Students	1 min	playdough
	spell the words, trace with		white paper
	their finger. Focus: Mnemonics-		Magnetic letters
	'wh'question words – is it?		Magna doodle
	4. Students write the words		
Rotational Activities	onto whiteboards three	(3 x 1 min)	
to reinforce new	times, read the words. Trace	,	
word.	the shape.	3 min.	
N. 12	5. Rotational activities: A		
New word in prose.	student at each station.		
	Whiteboard (colour)	3 min	
	Pasta/String Letters	3 111111	
	Magnetic letters Come back as a group		
	6. Come back as a group. Make shape with body.		
	Write word again on		
	whiteboard/ word shape.		
	Then write in a sentence in		
	booklet.		
	Where is it?		
	Repeat steps 5 & 6 for 2	(2 x 6	
	other words. Who is it?	mins.) 12 mins.	
	Why is it? 7. Get children to say when I	12 HIIIIS.	
	imagine the shape of the	3 mins.	
	word in my head it helps me	J	
	recall it.		

SESSION 7 ACTIVITY 06/05/08

SESSION 7 ACTIVITY SESSION 7	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY			
06/05/08			
Revision of Goal "to learn the High Frequency Words" Why	Get Children to articulate our shared goal and reason why we are learning the HFW's.	1 min.	words on cards been much 5/6 j
"Because we use them often in our reading and	Together read aloud the Together read aloud the Together read aloud the words, say and spell aloud.	1 min. 2 min	now 3/6 L,J,S down 4/6 Ch, S whiteboards
writing".	2. Game: Tic Tac Toe with known HFW. 3. Introduce 3 new words on	2 mins	(individual) whiteboard markers
Introduce new words.	cards. M100W cards. Students spell the words, trace with their	2 mins	words on large card (for word wall)
	finger. Focus: Analogy –Is it like a word I know? 4. Students write the words onto whiteboards three times, read the words. Trace the shape.	1 min	playdough white paper Magnetic letters Magna doodle
Rotational Activities to	5. Rotational activities: A student at each station.	(3 x 1 min)	
reinforce new word.	highlighter wordsplaydoughmagnetic letters /	3 min.	
New word in prose.	magnadoodle 6. Come back as a group. Make shape with body. Write word again on whiteboard/ word shape. Then write in a sentence in booklet. I have been to the shop.	3 min.	
	Repeat steps 5 & 6 for 2 other words. How much is it? Do it now ? Is it up or down?	(2 x 6 mins.) 12 mins.	Analogy: Cow –now, how, down Been – seen,
	7. Children articulate:- "When I know a word I can use that word to help me spell other words like it".	3 mins.	Difference b/w much – must Present: Shania, Charlotte, Cody, Lucas

SESSION 8 ACTIVITY 07/05/08

SESSION 8 ACTIVITY SESSION 8	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY	TACK BEGOTIII TICK	111111	WATERNALO
W 07/05/08			
Revision of Goal	Get Children to articulate		words on cards
"to learn the High	our shared goal and reason	1 mins.	There 5/6 S
Frequency Words"	why we are learning the	1 1111113.	
Why	HFW's.		Their 5/6 S
"Because we use		1 min.	
them often in our	Together read aloud the		whiteboards
reading and writing".	100 HFW.	1 min.	(individual)
	2. Game: Tic Tac Toe with		whiteboard
	HFW.	2 min	markers words on large
Introduce new	3. Introduce 2 new words.		card (for word
words.	M100W cards. Students		wall)
	spell the words, trace with	_	playdough
	their finger.	2 mins	white paper
	Focus: Mnemonics		Magnetic letters
	4. Students write the words		Magna doodle
	onto whiteboards three	(2 v 1 min)	
	times, read the words. Trace	(3 x 1 min)	Present: Shania,
Rotational Activities	the shape.	3 min.	Charlotte, Isy,
to reinforce new	5. Rotational activities: A	3 111111.	Cody, Lucas
word.	student at each station.		
Word.	 highlighter Word spiral 		
New word in prose.	Letter word shapes	1 min.	
'	magnetic letters /		
	magnadoodle	2 min.	
	6. Come back as a group.		
	Make shape with body.	2 min.	
	Write word again on		
	whiteboard/ word shape.		
	7. Write sentence in booklet.		
	I live over there. Where?		
	Here!		
	(Related to place & space)		
	Repeat steps 5,6 & 7 for	6 mins	
	other word. It is their pen/kite.	3 mins.	
	8. Cloze activity identifying	o iiiiis.	
	which their/there makes	3 mins	
	sense.	J 1111113	
	9. Get children to say how		
	they will remember which		
	their to use.		
	Think, Pair Share.	27 mins	

SESSION 9 ACTIVITY 08/05/08

SESSION 9 ACTIVITY SESSION 9	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY			
Th 08/05/08			
Revision of Goal "to learn the High Frequency Words" Why	Get Children to articulate our shared goal and reason why we are learning the HFW's.	2 mins.	words on cards Little 3/6 Ch,I,S Want,
"Because we use		1 min.	Was 1/6 C whiteboards
them often in our reading and writing".	1. Revise - read aloud the100 HFW.2. Guess the word – word	2 min	(individual) whiteboard
Introduce new	shapes. 3. Introduce 3 new	2 mins	markers words on large
words.	words.M100W cards. Students spell the words, trace with their finger.	1 mins	card (for word wall) playdough white paper
	Focus: Visualisation - word shapes.	1 min	Magnetic letters Magna doodle
	4. Students write the words onto whiteboards three		Wagna accure
Rotational Activities to reinforce new	times, read the words. Trace the shape.	(3 x 1 min)	
word.	5. Rotational activities: A student at each station.highlighter words	3 min.	
New word in prose.	 playdough magnetic letters / magnadoodle 	3 min.	
	6. Come back as a group. Make shape with body. Write word again on		
	whiteboard/ word shape. Then write in a sentence in booklet.		
	I am <u>little</u> .		
	Repeat steps 5 & 6 for 2	(2 x 6	
	other words. I <u>want</u> a book.	mins.)	
	It was their kite.	12 mins.	
	7. Get children to say when I imagine the shape of the		
	word in my head it helps me recall it.	3 mins.	

SESSION 10 ACTIVITY 09/05/08

SESSION 10 ACTIVITY SESSION 10	TASK DESCRIPTION	TIME	MATERIALS
ACTIVITY		· ····-	,,
09/05/08			
Revision of Goal	Get Children to articulate our		words on cards
"to learn the High	shared goal and reason why	2 mins.	Make 3/6 Ch,L,J
Frequency Words"	we are learning the HFW's.		All 1/6 Ch,C,I,L,S
Why		d mate	(call) 3/6 Ch,L,S
"Because we use them often in our	1. Together read aloud the	1 min.	Come 4/6 ch,s
reading and writing".	100 HFW. 2. Game: Tic Tac Toe with	2 min	Some 4/6 Ch,S
	HFW.		
	3. Introduce 5 new	3 mins	whiteboards
Introduce new	words.M100W cards.		(individual)
words.	Students spell the words,		whiteboard
	trace with their finger.		markers
	Focus: Visualisation word		words on large card (for word wall)
	shapes/Analogy 4. Students write the words		playdough
	onto whiteboards three	1 min	white paper
	times, read the words. Trace		Magnetic letters
	the shape.	(3 x 1 min)	Magna doodle
Rotational Activities	5. Rotational activities: A		
to reinforce new	student at each station.	3 min.	
word.	 Spiral highlighter 		
	words		
New word in prose.	 playdough 	3 min.	
i New Word in prose.	magnetic letters /	3 111111.	
	magnadoodle		
	6. Come back as a group. Make shape with body.		
	Write word again on		
	whiteboard/ word shape.		
	Then write in a sentence in		
	booklet.		
	I can make a cake.		
	Repeat steps 5 & 6 for 4	(2 x 7	
	other words.	mins.) 12 mins.	
	If I call you then all come in. Some kids did come in.	3 mins.	
	7. Get children to say when I	o iiiiis.	
	imagine the shape of the	2 mins.	
	word in my head it helps me		
	recall it. When I think of a		
	word that sounds or looks		
	like it then I can work out the		
	word.		

Appedix B: Sample of Session Evaluations

SESSION 1 M 21/04/08 Venue: Library	General Introduction. Discussion and clarification of purpose of sessions. Review of student's results and formulation of our joint goal i.e.: To improve students spelling of HFW.
SESSION 2 W 23/04/08	2 students absent. (3 students better number) Initial part of session Excellent, students really responding well. Session interrupted, had to move rooms x2. Each time lost continuity. Students were excellent and on task really responded to the Kinesthetic activities, esp. body movement. Used some brain gym/ Left & right brain engaging activities to maintain focus. Rushed the explicit
Venue:	articulation of what students had learnt.
Library,	Worked well that no students knew how to spell words.
Prep room,	Introduces homework task & booklet.
Staffroom	Went over time: 45 mins.
SESSION 3	All Students present
Th 24/04/08	Sessions went well, although went over time. 50 mins. Need to focus on
	time management, keeping activities moving.
.,	Shaving foam a hit with boys. Student C difficulty with "right".
Venue:	Only managed 2 words. Perhaps need only do 3 activities per word.
Library	

Appendix C: Words Studied each Session.

	Word 1	Word 2	Α	В	С	D	E
Session 1	Must	Before (be, or, for,)					
Session 2	Other	Right					
Session 3	More (or)	Said					
Session 4	Could (should, would)	Here					
Session 5	Come (some)	Same (came)					
Session 6	Which, When, Why	Where, Who, What					
Session 7	Been	Much					
Session 8	There	Their					
Session 9	Little	About (out)					
Session 10	All (call)	Make					