

ABSTRACT

The reading process and word recognition should be quick, accurate and effortless. Many students have difficulties when decoding long words, in particular segmenting multisyllabic words into workable parts making the reading process a long and tedious task.

The hypothesis being investigated is:

Explicit instruction in the phonological area of segmenting and blending a sequence of sounds increases the student's ability to read unfamiliar words.

The method used followed an 00X0 design. Three Grade 2 students who display reading difficulties were chosen. Initial assessments were carried out in word recognition, prose reading and accuracy in the dependable rime units. Ten teaching sessions took place in followed by further testing. The teaching sessions were held outside of the classroom in small group sessions involving only the children being researched. The sessions were 30 minutes long with 25 minutes of teaching and reflection time. The extra 5 minutes allowed for movement to and from the classroom.

The explicit teaching sessions included re-visiting initial blends, segmenting words, looking at the beginning, middle and end of words and revising the 37 dependable rime units.

The activities ranged in sequential order of difficulty and each session was built on knowledge gained from previous session. Time at the beginning of each session was given to revise and practice what was taught at the last session. Reflection time concluded each session, encouraging students to articulate what they had learnt.

The findings were mixed but it generally indicated that explicit teaching in word recognition did improve the accuracy of reading words.

INTRODUCTION

Reading requires the use of many different strategies but to understand what is being read, McCormick states, the reading process and word recognition should be quick, accurate and effortless. Many students with reading difficulties spend too much time trying to decode words, thus interfering with meaning and comprehension. "We want readers to become efficient at word recognition as possible so that all their attention can be focused on making sense of the authors message" (McCormick, 1987, pg. 77). Dechant states, for students to be reading effectively they need to be able to identify words at sight and be able to decode it.

McCormick notes that many readers experiencing difficulties often labour over decoding of words. They require a great deal of effort to recognize words, often hesitating for long periods of time. "They labour over too many words, need to repeat many words several times before pronouncing them correctly....and seem to treat reading as a task of 'getting the word right' rather than comprehending the text" (McCormick, 1987 pg. 77).

Richek also states that readers struggling to recognize words use their energy decoding rather than comprehending. "This struggle often yields only inaccurate word recognition" (Richek et al, 2002 pg 136). Dechant observes that there are 26 letters and 44 sounds in our alphabet, therefore more than 250 combinations of phoneme/graphemes. It is no wonder many children find reading a frustrating experience.

“The process of recognizing words is complex. Readers must use a variety of strategies to accomplish this task” (Richek et al, 2002 pg. 136). The use of phonics is one such strategy. McGinnis states that phonics refers to the letter-sound relationship. It is the strategy used to convert the written letters into a spoken word. McCormick notes that phonic knowledge is extremely important to readers. “Phonics refers to the relationship between sound and spelling, particularly within written language and the readers use this knowledge to decode unknown words” (McCormick, 1987 pg. 78).

As stated in Kamil, “explicit instruction in phonological awareness and the connections between sound segments and letters may help to close the ever widening gap that exists between those readers who lack insight into the phonological structure of spoken words and those who seem to acquire this awareness effortlessly” (Kamil et al, 200 pg. 496). It is in this research assignment that the use of phonics will be focused on when dealing with word recognition and accuracy.

The students chosen for this study have difficulties when decoding long words, in particular segmenting multisyllabic words into workable parts. It is thought that by explicit teaching in this particular area, the students in question will benefit. “By analyzing the structure of a long unknown word and identifying its meaningful parts, the pupil is more likely to understand the meaning of the word and, indirectly, to work out it’s pronunciation” (Dechant, 1981 pg. 221).

Teaching children to accurately segment words by dividing the unknown word into parts and then blending them back into the whole word is only a small part of word recognition, however this is the basis for this particular research. Using analogy, recognizing unknown words by using known words, and syllables is also another important factor in the word recognition process. Richek states that to learn multisyllabic words, students can collect long words, use analogy, or practice breaking words into syllables. The use of analogy and syllables in word recognition has also been touched on in this study. The re-visiting of rime units or word families has also been added to the explicit teaching to aid in segmentation of words.

Dechant mentions that identifying an unknown word requires the examination of the root, prefixes, suffixes, inflectional word endings and changes, contractions and syllables. Often children experience difficulties when faced with a long word because they may feel daunted by the many strings of letters. Another reason, as stated in Richek, is that students forget to combine phonics when they meet a long word. Dechant believes that showing students how words can be divided will help to overcome this problem. “Words can seem quite manageable if the student has developed the habit of dividing the word up and looking for familiar parts” (Dechant, 1981 pg. 277).

As mentioned previously, reading requires the use of many different strategies, word recognition being only one aspect. Word recognition also requires the use of many different strategies. This research assignment looks at the use of phonics to aid in word recognition, in particular breaking up long words into manageable chunks. Another aspect of word recognition that will be explored is the use of analogy, rime units and syllables. “Phonics strategies are a vital part of good reading, but poor readers usually have difficulty learning to use them. Irregularities in the English spelling system can cause problems... Remember that phonics instruction is only one part of a well-balanced reading program; poor readers need to develop a variety of strategies of recognizing words” (Richek et al, 2002 pg. 138).

METHOD

This study followed an 00X0 design. The participants for the research assignment include three grade two students who display reading difficulties. Although all three students are reading at an independent level, their accuracy and fluency when reading do not match the standard of the rest of the class. All three students require a great deal of concentration and hard work when reading an unknown text.

When analysing running records the three students rely heavily on their visual knowledge, often saying nonsense words that look visually similar, rather than manipulating sounds and letter clusters to accurately read the word. All three students can accurately and fluently read high frequency words but often struggle with two and three syllabic words. It is intended that by re-visiting certain sounds and exploring different ways of segmenting words, these will children read with greater ease and accuracy and this is why they were chosen for the research project.

PARTICIPANTS

Child 1

The first participant is a grade two boy of 7 years and 11 months of age. Child 1 was on the reading recovery program in grade one. He is reading at an independent level of 28+ (level 28 easy) however the reading process is often long and tedious. Child 1 has some minor speech problems. He sometimes confuses "th" sound with "f" sound in words such as three and thirty and "ing" with "ink" in words such as something and nothing. When asked to repeat the correct sound he is able to do so. Child 1 has been assessed by a Speech Pathologist but was not considered a candidate for further assistance.

Child 2

The second participant is a grade two girl of 7 years and 9 months of age. Child 2 was considered a candidate for the reading recovery program but just missed out due to the strict selection criteria. She is reading at an independent level of 28 (level 28 instructional) however the reading process is also long and tedious. Child 2 has been on an Individual Learning Plan all year, involving regular meetings with parents. This has provided an extra support with her reading at school and at home.

Child 3

The third participant is a grade two girl of 8 years and 8 months of age. Child 3 was on the reading recovery program in grade one. She is reading at an independent level of 28+ (level 28 easy) however the reading process is again long and tedious. Child 3 was on an Individual Learning Plan for term one and two of this year and is now on an informal monitoring system with teachers and parents.

MATERIALS

The materials used to test the students included the Burt Word Test, Running Records and the 37 Dependable Rime Units. The text used for the running records were level 29 of the PM Benchmark Books "Fording the River".

Materials used in the teaching sessions included: level 26, 27, 28 and 30 of the PM Benchmark Books; flash cards with initial and final blends and rime unit, including the 37 dependable rimes; individual white boards and markers; and highlighters.

PROCEDURE

The students were pre-tested twice using Running Records and the Burt Word Test. This was followed by ten sessions of explicit teaching, focusing on phonological awareness. All students were again tested, post teaching, and the results analysed.

A Number score was given for the correct responses in the Burt Word Test (*Refer to Appendix A*). The running records were recorded on paper and on tape. A number score was given for the number of errors made. (*Refer to Appendix B*). The 37 Dependable Rime Units were given a number score for the correct responses. (*Refer to Appendix C*).

The teaching sessions were held outside of the classroom in small group sessions involving only the children being researched. The sessions were 30 minutes long with 25 minutes of teaching and reflection time. The extra five minutes allowed for movement to and from the classroom. The sessions were held daily over a two-week period. Child 1 had two teaching sessions on one of the last day prior to his post testing as he was leaving to go on holidays.

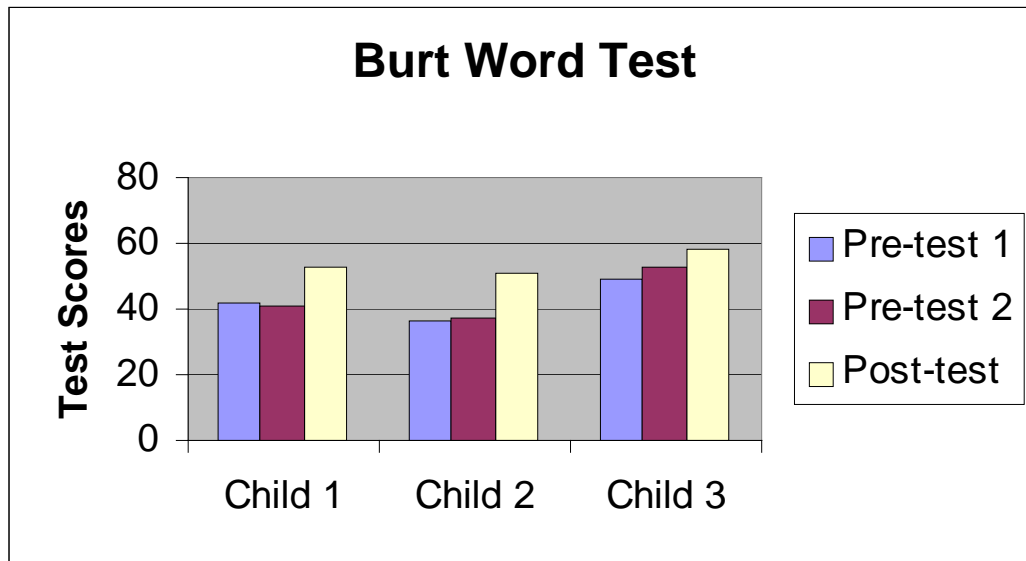
The activities ranged in sequential order of difficulty and each session was built on knowledge gained from previous session. Time at the beginning of each session was given to revise and practice what was taught at the last session. Reflection time concluded each session, encouraging students to articulate what they had learnt.

The explicit teaching sessions included re-visiting initial blends, segmenting words, looking at the beginning, middle and end of words and revising the 37 dependable rime units. Refer to *Appendix D* for a more detailed description of the explicit teaching sessions.

RESULTS

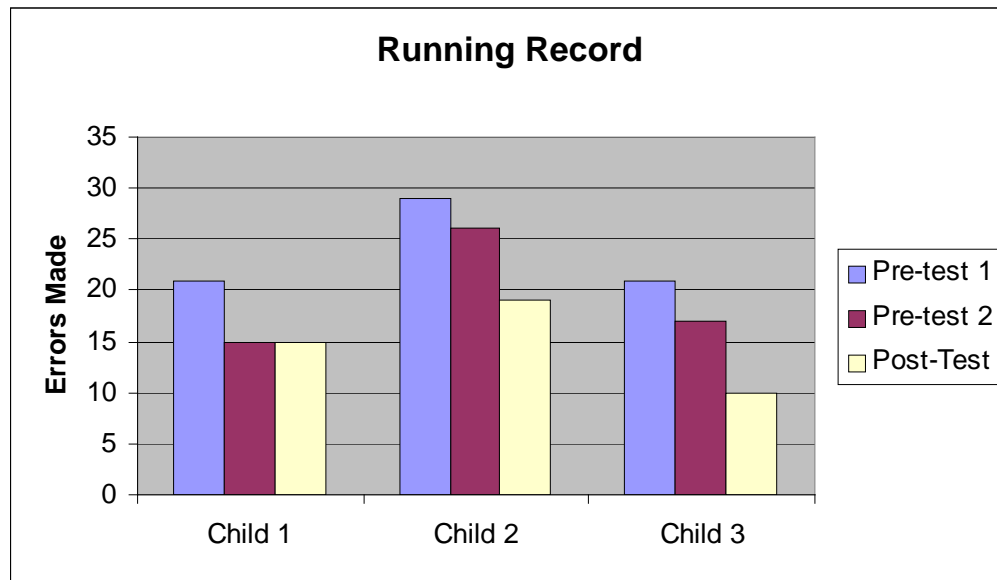
The results for the Burt Word Test show that all participants improved after the teaching sessions. Child 1 received a score of 42 out of 100 in the first pre-test and 41 out of 100 in the second pre-test. Child 1 scored 53 in the post-test. Child 1 scored only one point differently for both pre-tests however they were able to decode 11 more words accurately after the explicit teaching sessions. Child 2 scored 36 for the first pre-test and 37 for the second pre-test. Child 2 scored 51 for the post-test and was able to decode 25 more words accurately after the explicit teaching sessions. Child 3 scored 49 for the first pre-test and 53 for the second pre-test. Child 3 scored 58 for the post-test and was able to decode 4 more words accurately from pre-test one to pre-test two and 5 more words accurately from pre-test two to the post-test. (See Table 1 for results).

Table 1



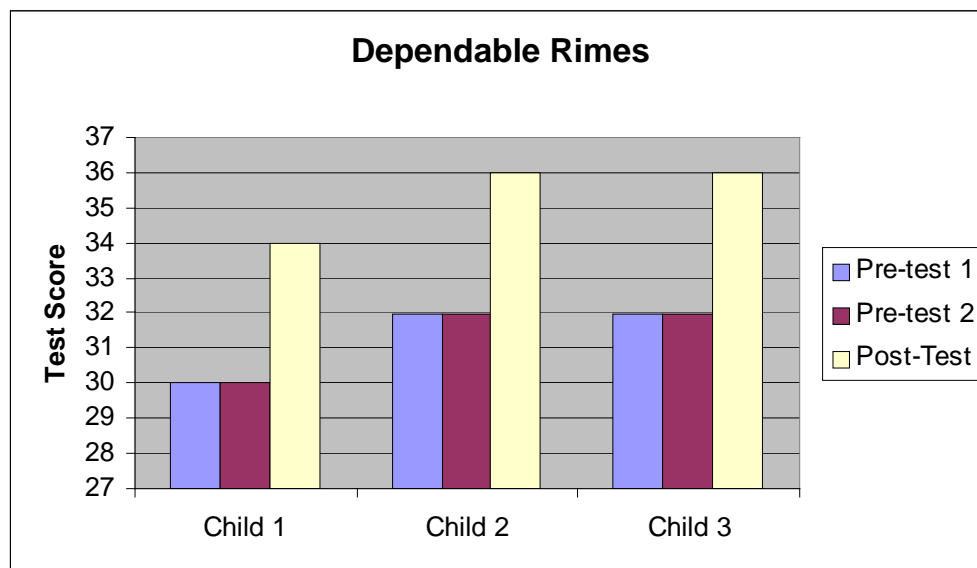
The results for reading prose also showed some improvement. Child 1 read the text 'Fording the River' with 21 errors made in the first pre-test and 15 errors in the second pre-test. After the explicit teaching sessions again 15 errors were made. Child 1 read 6 words more accurately from the first pre-test to the second pre-test however the same score was recorded for the second pre-test and the post-test. Child 2 made 29 errors when reading the text for the first time and 26 errors in the second pre-test. Child 2 made 19 errors after the explicit teaching sessions. Child 2 read 7 more words accurately from the second pre-test. Child 3 made 21 errors in the first pre-test compared to 17 errors in the second pre-test to the post-test. Child 3 made 10 errors in the post-test therefore Child 3 read 7 more words accurately from the second pre-test to the post-test. (See table 2 for results).

Table 2



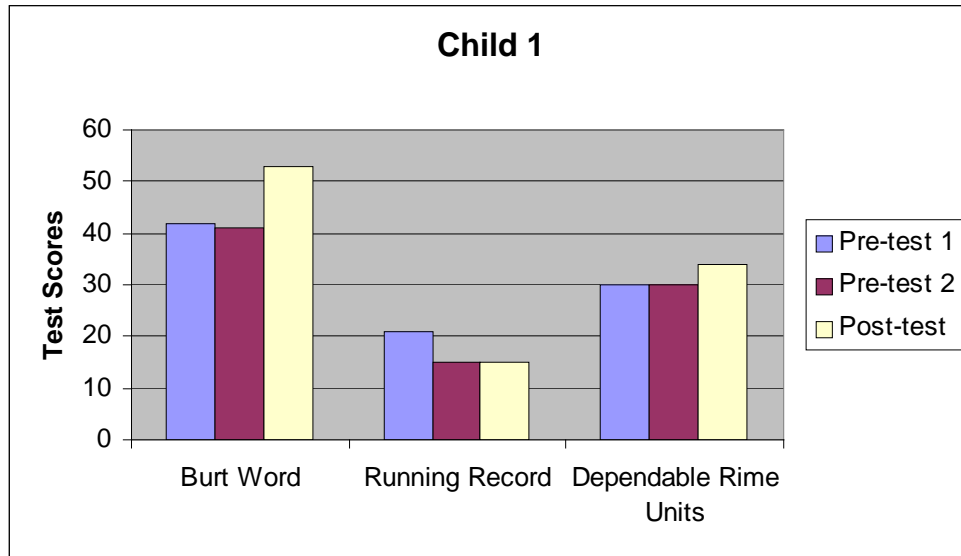
All participants showed improvements in the 37 dependable rime units test. Child 1 scored 30 in both the pre-tests and 34 in the post-test. Three of the rime units were read incorrectly in the post-test. Both Child 2 and Child 3 scored 32 in both pre-tests and 36 in the post-test. Only one error was made in the rime units for the post test. (See table 3 for results).

Table 3



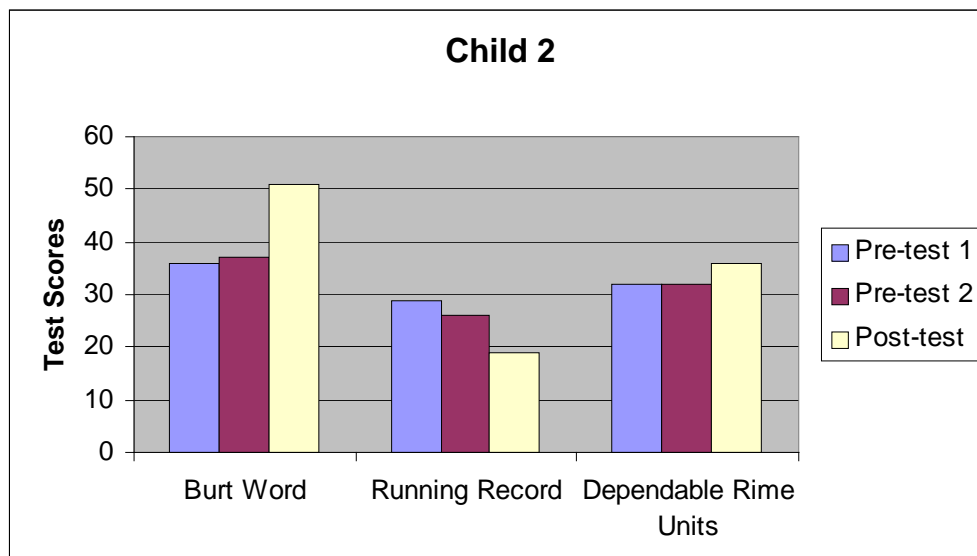
Child 1 received similar scores for both pre-tests in the Burt Word Test. They only read one more word incorrectly in the first pre-test compared to the second pre-test. An improvement of reading accurately 11 more words for the post-test supports the hypothesis that explicit teaching in segmenting and blending improves reading accuracy. However the results for the Running Record was somewhat different. The first pre-test results compared to the second pre-test results show an improvement in the prose reading of the same text before the explicit teaching sessions. Child 1 read six more words correctly. Child 1 received the same score for the second pre-test as the post-test therefore not supporting the hypothesis. Both pre-tests for the dependable rime units resulted in the same score. Child 1 read four more rime units after the teaching sessions. An improvement in reading the dependable rime units after the teaching sessions supports the hypothesis. (See Table 4).

Table 4



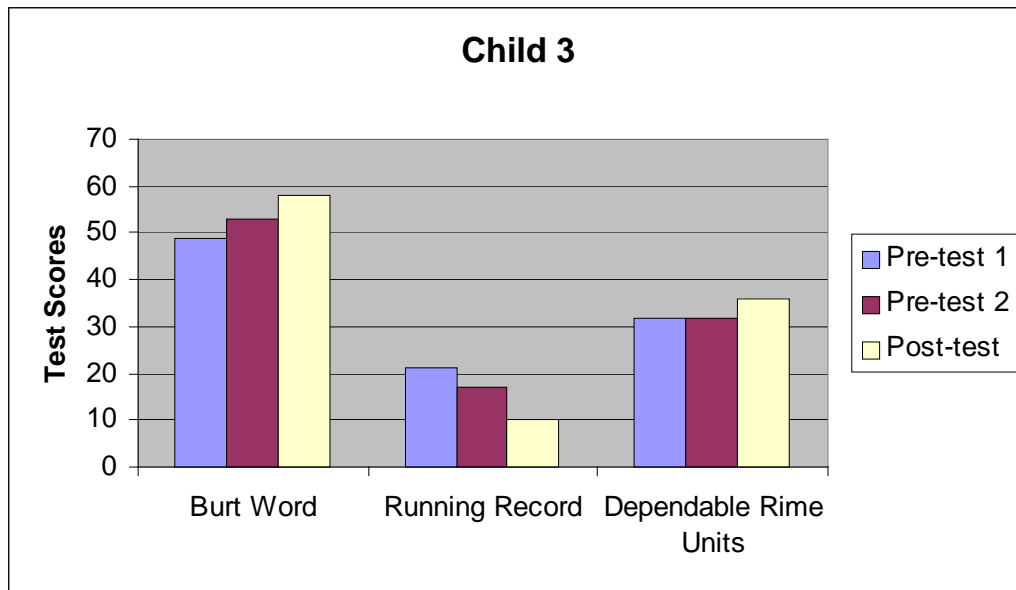
Child 2 also received similar scores for both pre-tests in the Burt Word Test. One more word was read correctly in the second pre-test. The post-test results show an increase of reading 25 more words correctly. This result supports the hypothesis that specific teaching in segmenting and blending improves reading accuracy. The results for the Running Records resulted in three more words being read correctly in the second pre-test. The results for the post-test show an improvement of reading 7 more words accurately. This is not a significant improvement compared to the other test scores however it does support the hypothesis. Both pre-tests for the dependable rime units resulted in the same score. Child 2 showed an improvement of reading 4 more rime units in the post-test thus supporting the hypothesis. (See Table 5).

Table 5



Child 3 showed an improvement between the first and second pre-test. Four more words were read correctly in the second pre-test before any teaching sessions. An improvement of 5 words after the teaching sessions makes it unclear if these results support the hypothesis. Child 3 also shows an improvement by reading four more words correctly in the second pre-test when reading prose however an increase of another 7 words after the teaching sessions supports the hypothesis. Both pre-tests for the dependable rime units resulted in the same score and an increase of 4 rime units after the teaching sessions supports the hypothesis. (See Table 6).

Table 6



DISCUSSION

The results for the Burt Word Test support the hypothesis for Child 1 and 2, in particular for child 2. Child 2 showed an improvement by reading 25 more words accurately compared to child 1 reading 11 more words. One reason for the significant improvement of child 1 compared to the other participants could be due to extra parental support at home. Child 2 stated that she had been practicing the skills learnt at school. She wanted to take home the tricky words she can segment and decode to show her parents. Child 2's self-efficacy was quite high at this time and she enjoyed the attention she received from decoding multisyllabic words. Some of the words Child 2 was able to decode after the teaching sessions but not previously included; return, projecting, obtain and explorer. It is believed that the support given in segmenting words has enabled this child to accurately decode these words.

The results from the Burt Word Test are also supported by research stated previously. Dechant mentions that instruction in phonics and segmenting of words can help students manage long words. Kamil also mentions that instruction in sound segments help those who are experiencing difficulties.

The results for Child 3 in the Burt Word Test does not support the hypothesis. An improvement by four words between pre-tests and 5 words in the post-test is not significant enough to say that improvement was due to the teaching sessions. A reason for the low score in the post-test, compared to the other participants may be due to the fact that child 3 was suffering from a cold. Child 3 may not have used the segmenting skills gained from the teaching sessions to successfully decode unknown words that are in the Burt Word Test such as theory, motionless and trudging.

The results for reading prose are not clear-cut either. The hypothesis has been supported for Child 2 who showed an increase of reading 10 more words accurately. Unfortunately the results for Child 1 and 3 are not the same. Child 1 showed an improvement between the two pre-tests, by reading 6 more words accurately, but no improvement at all was shown between the second pre-test and the post-test. Therefore the results for prose reading for Child 1 is not supported by the hypothesis.

It is difficult state the reasons for this result, however one reason may be that Child 1 didn't put the knowledge of decoding words into practice when reading prose. One particular reason for the improvement before the teaching sessions is that Child 1 had seen the text previously. More time may have been needed between the pre-tests in order for familiarity of the text not to have an impact. Child 1 may require instruction in other reading skills, such as comprehension and self-management strategies, to further help his reading. As stated by Richek, phonics instruction is only one aspect of a well-balanced reading program.

It is not clear whether the hypothesis has been supported for Child 3 when reading prose. Child 3 showed improvements both between the pre-tests and the post-test. Child 3 showed an improvement of reading four more words correctly in the second pre-test and seven more words correctly in the post-test. The improvement of word accuracy in the post-test was not significant enough to say that the hypothesis was supported but some improvement was shown so the results don't disprove the hypothesis either. Like Child 1, Child 3 may benefit in instruction in other reading skills, such as comprehension and self-management strategies, to further help her reading.

All participants showed an improvement in recognising the 37 dependable rime units. The same score for both pre-tests, for all participants, and an improvement by saying accurately four more rime units supports the hypothesis. Flash cards of the dependable rime units were used at the beginning of each teaching session. The participants became very quick and accurate at saying these

rime units, and it was a surprise that some errors were made in the post-test. Child 2 and 3 made only one error however Child 1 made 3 errors.

There were few limitations in this research assignment that may have affected the results as the teaching sessions were taken in a quiet room, away from normal classroom distractions. All participants were motivated and enthusiastic throughout the teaching sessions however occasionally a participant would mention that a particular word was too hard to segment. Some of the limitations that occurred was the time spent on each teaching session. Thirty to forty minute sessions would have been preferable but unachievable due to other commitments. Child 1 went away on a holiday and therefore had two teaching sessions in one day followed by the post-testing. Child 2 had been sick with a cold and suffered with a cough and runny nose during the last three teaching sessions and the post-testing.

Further research for these participants might include investigating and teaching comprehension strategies, such as visualising, listening to themselves read and re-telling what they have read. Another suggestion for further research on these participants is improving their self-management strategies, focusing on re-reading the word and the sentence.

BIBLIOGRAPHY

Dechant.E. *'Diagnosis and Remediation of Reading Disabilities'*
Prentice Hall Inc 1981

Kamil, Mosenthal, Pearson, Barr. *'Handbook of Reading Research Volume 3'*
Lawrence Erlbaum Ass. Inc. 2000

McGinnis.D, Smith.D. *'Analysing and Treating Reading Problems'*
Macmillian Pub Co 1982

Richek.M, Caudwell.J, Jennings.J, Lerner.J, *'Reading Problems – Assessment and Teaching Strategies'* 4th Edition Allyn and Bacon 2002

Resources

Gilmore, Croft, Reid *'Burt Word Reading Test'*
New Zealand Council for Education Research, 1981

Nelley, Smith *'PM Benchmark Kit - An Assessment Resource for Emergent-12 years'*
Nelson ITP, 2000

37 dependable rime units

This document was created with Win2PDF available at <http://www.daneprairie.com>.
The unregistered version of Win2PDF is for evaluation or non-commercial use only.