ACTION RESEARCH PROJECT

Explicit teaching of onset and rime units to a group of Grade 3 children who are having spelling difficulties improves individual word and prose reading ability.

ABSTRACT

Children who have poor spelling ability require explicit teaching of onsets and rimes to develop efficient and successful decoding strategies in order to improve the ability to read words in isolation and in prose.

The children in this project did not possess the ability to decode unknown words or transfer any known knowledge of letter clusters to decode unfamiliar words in reading and spelling. There were 4 children in the intervention program and 2 children of similar ability in the control group.

The following hypothesis was proposed and tested:

"Explicit teaching of onset and rime units to a group of Grade 3 children who are having spelling difficulties improves individual word and prose reading ability and knowledge."

This study investigates the relationship between explicit instruction and a structured approach to teaching orthographic units at word level and then transferring the strategies into prose reading. The results of the intervention group were compared with the control group.

The needs of the children were determined through pre-testing tasks and followed by 10 sessions directly related to teaching onsets and rimes that the children did not know. At the conclusion of the program all children were given post-test tasks to record the findings.

The results of the intervention group confirm the hypothesis as all 4 children made significant gains in orthographic knowledge as well as prose reading. While the 2 children in the control group may have made some gains, they were not significant in comparison to the successful results in all areas in the intervention group.
INTRODUCTION

As part of my role as a Reading Recovery Teacher, it is my responsibility to accelerate the learning of Grade One children who are at risk in reading and writing. The children I have chosen for my study discontinued successfully from Reading Recovery in 2002. However, while their Text levels may have improved, it was noted at the commencement of Grade 3 in 2005 that their spelling skills were quite poor. They were chosen in relation to the scores achieved in the PROBE testing conducted in February 2005. (see Table 1 below) Their reading ages according to a PROBE test administered were significantly below their chronological age. It was noted after consultation with the class teacher that the children had difficulty recalling the spelling of known words as well as being able to decode unknown words. They have not automatised letter clusters or recalled how to use analogy at unfamiliar words. In essence, they do not possess "the coathanger" needed to help them to read and spell unknown words in isolation or in prose. (Munro. 2004) Thus, explicit teaching in identifying onset and rime units to decode words is needed.

At the conclusion of the pre-testing tasks, I have noted that the children had difficulties at the Word Level according to John Munro’s Multiple Levels of Text Processing Model. The results show that the following difficulties may be affecting their reading of words in isolation and in prose and in writing and spelling unknown words or words with unknown letter clusters: difficulty blending sounds to form a word, segmenting words into sounds, identifying letters or letter clusters using letter cluster knowledge used in one word to assist reading another word with a similar cluster pattern-analogy, doesn’t recognize letter clusters or digraphs in words, is inconsistent with letter identification and learning the visual code. The Running Records show that the students relied heavily on these reading strategies outlined in John Munro’s Checklist for identifying reading difficulties at the word level:

* predicts words on the basis of an individual letter and/or letter cluster
* converts each letter or a sound and blends sounds
* overuses picture cues to read an unknown word
* segments words into letters or inappropriate clusters (J. Munro 2004)

A review of current literature supports intervention at this stage for the development of the four students.

"Building a culture of learning within today's classrooms requires teachers and students to jointly engage in teaching and learning that is purposeful, relevant and clearly defined. In contemporary educational media 'explicit teaching' has been highlighted as an effective approach to literacy pedagogy that directly influences literacy learning."(Edwards- Groves, C. J. 1999) My hypothesis supports this statement and my study was designed to give the 4 children explicit instruction on onsets and rimes.

"Research of more than two decades has affirmed the importance of phonological awareness and its relation to reading acquisition, thus, recent reviews of the literature (Hurford, Darrow, Edwards, Howerton, Mote, Schauf, & Coffey, 1993; Mann, 1993) indicated that the presence of phonological awareness is a hallmark characteristic of good readers while its absence is a consistent characteristic of poor readers. (Smith, Simmons, Kameenui)"
Young children can more easily identify an intermediate level of word segmentation that divides words up into units that are smaller than syllables, but bigger than phonemes. The ability to use these units called onsets and rimes helps with both spelling and word identification. (Iversen & Reeder, 1998)

Phonological processing consists of two components, awareness and coding, each having multiple dimensions that are relevant to reading acquisition. Explanations for differences between normally achieving and diverse learners in the ability to code, remember, and retrieve verbal information suggested the following causal chain (Liberman & Shankweiler, 1985; Mann & Brady, 1988; Torgensen, 1985):

\[ IF \text{ poor perception} \Rightarrow \text{ poor quality of representation or coding} \]

\[ IF \text{ poor coding} \Rightarrow \text{ poor durability in storage} \]

\[ IF \text{ poor durability in storage} \Rightarrow \text{ poor retrieval} \]

In short, difficulties with awareness, coding and retrieval of verbal sounds have powerful and long reaching effects in reading. Smith, Simmons & Kameenui(1990) follow on to suggest that "the most encouraging lines of research give strong evidence that significant gains in phonological awareness can be achieved with teaching and that the gains in phonological awareness directly affect the ease of reading acquisition and subsequent reading achievement."(Smith, Simmons, Kameenui 1990)

A major reason why many students have reading difficulties is because they cannot read words accurately or automatically. In other words they have not learnt and stored in their memories sets of letters clusters that they can use to work out unfamiliar words. They also have corresponding difficulties with spelling. (J. Munro 2004)

The intervention to be implemented will need to be based on phonological awareness and teach word segmentation. Research has shown that phonological awareness dimensions can be validly and reliably measured through a variety of tasks (Wagner, 1986: Yopp, 1998). The following tasks have been used in recent research as indicators of phonological awareness: auditory discrimination, blending, counting, deletion, isolation, rhyme, segmenting, substitution, sound categorization, tapping, reversing order of sounds, and word to word matching (Ball & Blachman, 1991; Lundberg et al., 1998; O’Connor et al., 1993; Spector, 1995; Yopp, 1998)

Several dimensions of phonological awareness received considerable attention in the research reviewed. Among the dimensions identified, segmentation was the most frequently used. It was often paired with other dimensions: including blending (Cunningham, 1990; O’Connor et al., 1993); detection (Byrne & Fielding-Barnsley, 1989; Hurford et al., 1993); and invented spelling (Mann, 1993). In studies of older readers, segmenting was used in combination with rapid naming and list learning skills (Cornwall, 1992) and with (Lencher et., 1990)

Stahl and Murray (1994) found that onset rime level was the easiest to segment, where as the most difficult levels were onset clusters (cc in cvcc words) and cluster codas(cc in cvcc words). The sequence in my teaching sessions aims to scaffold childrens’ learning following this notion. To ensure that each child’s knowledge of
individual sounds and letter clusters is transferred into reading it is very important that the new knowledge is transferred into prose (text). (Iversen & Reeder, 1998)

In summary, because the ‘core deficit responsible for the majority of cases of reading disability is at the most basic level of the language system-the level of the phoneme,’(Lyon, 1995,p.3) blending and segmenting have been established as pre-requisites for reading acquisition (Torgesen et al;1994; Wagner & Torgensen, 1987)

Thus, through thorough assessment and working in the child’s ‘zone of proximal development’ as outlined by Vgotsky (Reading Recovery notes 2004), we can go from what the child can do-the intercognitive with assistance by a teacher, transition from this to self-assistance to intra-cognitive assistance provided by self. The language of the new learning is internalized by the process to become automatic and eventually fossilized into long-term memory. This study investigates the relationship between explicit and structured instruction in blending and segmenting at the word level and the transfer of the skills and strategies learnt to reading prose.

METHOD

Design

The study uses a case study OXO design in which the gain in decoding words in isolation and in prose is measured after explicit teaching of onset and rime units to a group of six Grade 3 children who have been having spelling difficulties. Four of the children would partake in the intervention group and 2 would be in the control group. The children were identified through formal assessment at the beginning of the year with the use of PROBE (see Table 1 below) as well as informal collaboration with the classroom teacher who had noted poor spelling skills and reading ability as a concern for these children. The children were formally assessed using a range of replicable tasks and an intervention plan based on John Munro’s Session Outline for Orthographic Processing was designed and administered to the 4 children in the intervention group. The four children were formally assessed after the intervention with the same tasks to ascertain any gains made. An interim word reading task and dictation task were administered after the 5 sessions to the intervention group. The control group was formally assessed before and after the intervention teaching with the same tasks. For these tasks, the children were withdrawn individually.

Table 1: - Probe Results (February 2005)

<table>
<thead>
<tr>
<th>Student</th>
<th>DOB</th>
<th>AGE @ FEB. 2005</th>
<th>PROBE RESULTS IN AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>25/8/96</td>
<td>8y6m</td>
<td>6.5yrs – 7.5yrs</td>
</tr>
<tr>
<td>B</td>
<td>9/9/96</td>
<td>8y5m</td>
<td>7yrs – 8yrs</td>
</tr>
<tr>
<td>C</td>
<td>4/1/97</td>
<td>8y1m</td>
<td>7yrs – 8yrs</td>
</tr>
<tr>
<td>D</td>
<td>12/4/97</td>
<td>7y10m</td>
<td>7yrs – 8yrs</td>
</tr>
<tr>
<td>E</td>
<td>28/4/96</td>
<td>8y10m</td>
<td>6.5yrs – 7.5yrs</td>
</tr>
<tr>
<td>F</td>
<td>7/8/96</td>
<td>8y6m</td>
<td>7.5yrs – 8.5yrs</td>
</tr>
</tbody>
</table>
**Participants**

The participants in the intervention group and in the control group are six Grade 3 children who received Reading Recovery Intervention in Grade 1. For the purpose of this study the students will be named: Student A, Student B, Student C, Student D, Student E and Student F. Five of the children participated in Reading Recovery sessions with me in 2003 and Student F received Reading Recovery at another school. I have not been able to locate her results in Reading Recovery. She transferred to our school this year. Students A to D were part of the intervention group, while Students E and F were part of the control group. All students attend a school in the North-Central Zone and have ESL background. Students A, C and F do not speak English at home. The students are currently in a 3/4 composite classroom. While the intervention took place, Student D was diagnosed with sight tracking problems by a Behavioural Optometrist. Exercises for her eyes and glasses have been implemented. Students A, B, C, D and F are female and Student E is male.

Results from Reading Recovery Sessions in 2003 follow.

<table>
<thead>
<tr>
<th>Student</th>
<th>Age</th>
<th>Instructional Text at Entry</th>
<th>Instructional Text at Discontinuing</th>
<th>Weeks in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6y 6m</td>
<td>Level 0 (Dictated)</td>
<td>Level 16</td>
<td>20 weeks</td>
</tr>
<tr>
<td>B</td>
<td>6y 11m</td>
<td>Level 13</td>
<td>Level 21</td>
<td>12 weeks</td>
</tr>
<tr>
<td>C</td>
<td>6y 7m</td>
<td>Level 6</td>
<td>Level 15</td>
<td>15 weeks</td>
</tr>
<tr>
<td>D</td>
<td>6y 4m</td>
<td>Level 5</td>
<td>Level 15</td>
<td>15 weeks</td>
</tr>
<tr>
<td>E</td>
<td>6y 9m</td>
<td>Level 1</td>
<td>Level 17</td>
<td>20 weeks</td>
</tr>
</tbody>
</table>

**PROCEDURE**

The students were all given the following tasks as part of their formal pre-intervention testing.

- Running Records using PM Benchmarks
- South Australian Spelling Test
- The Rimes Units Test
- The Orthographic Reading Test
- The Orthographic Spelling Test

The same tasks were administered as part of the formal post-intervention testing.
INTERVENTION FORMAT

The intervention research project was administered to four grade three children over a period of 3 weeks. They were withdrawn for testing sessions and ten 50 minute lessons. The control group consisted of two Grade 3 children whose assessment results were similar. All children were given the same pretests and post-tests with the exception of the intervention group being given an interim word reading test after 5 sessions. The sessions were conducted in the Reading Recovery Room.

The lessons followed the format outlined in Appendix A. Each day 10 words related to the rime chosen were taught and a new text related to the words was read. As outlined, the children read the text after my rich introduction. Anecdotal running records were taken on the next day of the previous text to monitor skills and strategies taught. During the Reflective Time, children articulated what they had learnt in order to store the information into long-term memory. This new knowledge would help prompt them at unfamiliar words and texts and enhance their Literacy learning. As John Munro states, “Self-scripts scaffold reading.” Through learning self-scripts a student learns to understand what they will do when they read. When teaching self-scripts it is important to move the reader from ‘What did I do when I read?’ To ‘What will I do when I read?’(J. Munro 2004)

Objectives of the intervention program:
For children
- to decode words using onset-rime strategy
- blend onsets and rimes to read words
- to identify rime units in words
- to transfer rime unit knowledge to other words (analogy)
- to learn helpful strategies to decode unknown words
- to articulate the strategies that will help to decode unknown words
- to transfer the strategies when reading prose.
- to achieve a sense of satisfaction at the end of the program
- to articulate what they have learnt

The target group for the intervention program was having difficulties at the Word Level of John Munro's MLOTP Model of reading.

Table 2 (Appendix F) shows the students' ages and entry levels at Pre-Testing in March 2005.

I decided to use all sources of information to scaffold my teaching sequences in order to scaffold the children’s learning. Through careful analysis of the pre-testing tasks I knew that I needed to structure the children’s learning experiences. One model of a teacher’s role proposed by Vygotsky (1978) who described the “zone of proximal development to be the distance between the actual development level as determined by independent problem solving and level of potential development as determined by problem solving under adult guidance or in collaboration with more capable peers.” It is within this zone that we can scaffold learning through explicit teaching.
Lane Clark states that ‘children’s environment needs to be stress free.’ When children are relaxed, the information that comes in goes in to be processed, however if the environment is stressed the information is not processed. We need to build our lessons around the corpus of knowledge. As Marie Clay says, we need to teach the strategies and say why. (M. Clay, 2001). We need to link what is known to unknown to problem solve to tap into the metacognitive area. Our lessons need to be consistent, persistent and insistent. (M. Clay, 2001)

The teaching procedure I followed can be located in Appendix A and the teaching schedule is in Appendix C. The rimes chosen were identified through the analysis of the pre-testing tasks.
MATERIALS

The following materials were used in the assessment tasks:

**PM Benchmarks Texts**
These texts are graded and children are given a running record to determine their instructional reading level at approximately 90%.

**The Rimes Units Task J. Munro**
This task is aimed at word reading level and children are required to read the words going down the columns. This test is based on the 37 dependable rime units.

**The South Australian Spelling Test**
This tests requires the teacher to dictate 50 words in isolation and as part of a sentence. Children must write the word down.

**The Orthographic Reading Task**
This task requires children to read one syllable words of varying complexity while the teacher notes if the words were said accurately.

**The Orthographic Spelling Task**
This task requires the children to circle the correct spelling of a word after the teacher reads the word in the context of a sentence.

**Flashcards**
10 words for each session were written on 2 sets of flashcards. The first set contained the words in black text, while the second set highlighted the onset and rime units in different colours. A third set, the same as the second, was used to be cut into the onset and rime units and used in the fifth session as reinforcement games.

**Prose Reading Texts**
These texts were devised using Fry's Readability Procedure to be used within the sessions for prose reading and for running records at the beginning of each session during Text Reading.

**Whiteboard**
Used to write additional words, sentences and for magnetic letters manipulation.

**Paper for children to write on and pencils and highlighters.**

**Witches hats for Stepping Stones Game.**
RESULTS

Data gathered through this action research project shows that Students A, B, C & D made significant gains in all post-testing tasks which is evident on Table 3 Post-Test Results in Appendix F.

Graph A

Graph A compares the level of Instructional text for students in the intervention group as well as the control group. It is evident that Students A, B, C, D made considerable gains with Students B, C, D moving 2 levels after the intervention.

After pre-testing the following results were noted:

**Student A** read Level 27 with an accuracy level of 90%. Her self-correction rate was 1:11. She read slowly, word by word and without a lot of meaning. The errors were led by distinctive visual features.

**Student B** read Level 27 with an accuracy level of 91%. Her self-correction rate was 1:7. While her reading sounded more phrased, she read rather quickly with no attention to meaning. Her errors were led by visual information and she cross-checked visual information usually with visual information and sometimes meaning to correct.

**Student C** read Level 27 with an accuracy level of 94%. Her self-correction rate was 1:18. She read very slowly, rather staccato and her errors were led by distinctive visual features.

**Student D** read Level 27 with an accuracy level of 90%. Her self-correction rate was 1:11. She read slowly and lost her place at times. She was not driven by meaning while reading. Her errors were led by visual information and she tried to cross-check with meaning at self-corrections.
Student E read Level 28 with an accuracy of 93%. There were no self-corrections and his reading sounded mumbled and quiet. His errors were led by visual information.

Student F read Level 26 with an accuracy level of 94% with no self-corrections. She read word by word and she kept leaving the ends off words. Her background is Vietnamese and it is evident that she has difficulties with the pronunciation and articulation of sounds.

When comparing results of Instructional Text Level Reading of pre and post-testing, it is pleasing to affirm that the intervention group made significant gains. Not only did their accuracy level improve as outlined below, but the strategies they were using to decode unfamiliar words were consistent with the ‘explicit’ teaching conducted during the ten sessions. All students referred to the prompts that were articulated during Reflective Time, and ‘having a real go’. Especially pleasing was the confidence with which they read, as well as the way their reading sounded. It was phrased and fluent reading. It is interesting to note that while Student E improved in Text levels, his reading was not phrased and fluent and he did not attempt to self-correct or decode unfamiliar words. Student F did not make any gains in Text level and she also did not attempt to self-correct or decode unfamiliar words. See Table 4.

Table 4: Post-test Results of Instructional Text Levels

<table>
<thead>
<tr>
<th>Student</th>
<th>Level</th>
<th>Accuracy</th>
<th>S/C Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>29</td>
<td>93%</td>
<td>1:3</td>
</tr>
<tr>
<td>B</td>
<td>30</td>
<td>94%</td>
<td>1:7</td>
</tr>
<tr>
<td>C</td>
<td>30</td>
<td>92%</td>
<td>1:9</td>
</tr>
<tr>
<td>D</td>
<td>30</td>
<td>93%</td>
<td>1:8</td>
</tr>
<tr>
<td>E</td>
<td>30</td>
<td>92%</td>
<td>Nil</td>
</tr>
<tr>
<td>F</td>
<td>26</td>
<td>93%</td>
<td>Nil</td>
</tr>
</tbody>
</table>
Tables 2 and 3 in Appendix F show the results of the South Australian Spelling Test as well as specifying the Spelling Ages based on the raw scores. Graph B compares the results. Results indicate that all students made gains, yet again Students A, B, C, D and E’s scores improved by 4 to 10, achieving spelling ages above their actual age.

Graph C details the results of the Orthographic Reading Tests and the Orthographic Spelling Tests. The gains made are considerable for Students A, B, C and D with Student B making the most gains. Interestingly, all students performed well in the RIME units test achieving almost full marks as a whole.(Table 3 Appendix F)
Interim Testing

After 5 sessions, 3 interim tests were given. The results follow.

<table>
<thead>
<tr>
<th>STUDENT</th>
<th>WORD READING TEST /50</th>
<th>DICTATION /16(KEY WORDS)</th>
<th>SPELLING TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>50</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>B</td>
<td>50</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>C</td>
<td>50</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>D</td>
<td>50</td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

The results show good results for most tests. Student D has difficulty articulating the ‘u’ sound as in mud and she is confusing it with ‘a’. More work will need to be done in this area with her.

DISCUSSION

The results support my hypothesis that:

*Explicit teaching of onset and rime units to a group of Grade 3 children who are having spelling difficulties improves individual word and prose ability.*

The teaching sessions outlined in Appendix A support the statement that “To ensure that a child’s knowledge of initial sounds and letter clusters is translated into reading, it is very important that the new knowledge is transferred into prose.” (Iversen & Reeder, 1998) The texts used were designed by me following Fry’s Readability Procedure.

Furthermore, I endeavored to create opportunities for learning through effective classroom interaction. A large body of research show effective classroom interaction leads to successful learning when it is explicit and student-centred (Freebody, Ludwig & Gunn, 1995; Edward-Groves, 1998)

The results in the Instructional Texts show the ability children have to transfer phonological awareness skills to prose after 10 explicit teaching sessions. All students in the Intervention group became more confident and displayed great enjoyment when reading the texts during the sessions and during the post-tests. Such behavioural change may have been better monitored by assessing their self-efficacy. While that component was not part of my hypothesis, the results support the view that children need to feel that it is all achievable and gains promote confidence. During the running records it was evident that the students had easily applied the knowledge of onset rime units to the prose and through the self-corrections, it was also evident that the children were using self-talk through the prompts we developed during the Reflective Time:

1. Does the word look right?
2. Is it like another word I know?
3. Can I sound it out? Do I know any part of the word?
4. If I think about the meaning, will it help?
5. Is there a spelling pattern?
These prompts also contributed to the success of the South Australian Spelling Test results. All students in the intervention group made considerable gains. Students B, C and D showed spelling ages significantly above their chronological age.

The results of the RIME units test indicate that I was successful in teaching the blending and segmenting of words in onset and rime units and in sounds.

The pleasing results of the Orthographic Reading Tests and the Orthographic Spelling Tests further complement the teaching style and content I incorporated in my sessions. Teaching the children to LOOK, SAY, COVER, WRITE, CHECK gave them the opportunity to use the multiple facets of learning in order to store the rimes into long-term memory for future use. This shows that “Phonological” awareness is teachable and promoted by attending to instructional design variables such as scaffolding tasks, materials and amount of teacher assistance across a continuing difficulty.(Smith et al, 1995)

In light of the small gains made within the control group, we can ascertain that other variables may have contributed to some of the success of all students. It was noted that within the classroom the children were receiving instruction on Spelling using the ‘Spelling Matters’ Resource Book. The following sounds were covered during the intervention period:

- ai as in tail
- ai as in rain
- ea as in meat, team, bean
- ow as in cow
- aw as in jaw
- igh/ight as in sigh/night

After discussions with the classroom teacher over the test results, it is heartening to know that she would like to incorporate the teaching strategies as well as the onset rime units into her Spelling program. It is also pleasing to note that the four children in the intervention program have made a marked improvement in the class ‘spelling tests’ further enhancing the success of the structured, focused, explicit teaching during the intervention sessions. This has significant implications for our school as we are in the process of designing a Literacy Scope and Sequence. I am now in the process of discussions to incorporate John Munro’ Model of Text Level Processing in Assessing children, analyzing the difficulties and implementing onset rime tasks according to their needs as well as following the sequence for teaching letter cluster-sound links needed for reading.(John Munro, 2004)

In the immediate future, I am looking forward to teaching the 10 sessions to Students E and F to attain further gains. Interestingly, Student F was referred to the C.E.O. Special Services before the intervention began and their findings which have been brought to our attention this week confirm my assessments of her. She is a visual learner who needs explicit teaching in the area of phonological awareness as well as cued articulation. In light of these findings, I will also administer the Sutherland Phonological Awareness Test to both children to ascertain their needs. After deciding to follow the Orthographic Sequence, I questioned whether it was a phonological processing problem with Student A and Student D as there was some confusion with the sound ‘u’ as in mud during the sessions. I decided to administer the SPAT test to
these two students which confirmed that I had in fact followed the correct path in teaching to the Orthographic Sequence. The results from the SPAT were very good.

In conclusion, I feel that the gains made by the four students in the intervention group support my hypothesis and they display that the intervention to teach phoneme identification, blending and segmenting through explicit teaching can improve individual word and prose reading abilities in students who are having spelling difficulties.
BIBLIOGRAPHY


APPENDIX A

SESSION OUTLINE

The sequence used for teaching onset and rime was based on John Munro's outline for Orthographic Processing. Ten words were introduced at each session. Five of the words were related to each chosen rime.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TASK DESCRIPTION</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text Reading</td>
<td>▪ Students re-read passage from previous session</td>
<td>5 mins</td>
</tr>
<tr>
<td></td>
<td>▪ Teacher takes running record as students read.</td>
<td></td>
</tr>
<tr>
<td>Reading Target Words</td>
<td>▪ Introduce target words. Students read target words</td>
<td>5 mins</td>
</tr>
<tr>
<td></td>
<td>▪ in random order. As cards are read, students run their finger underneath the words. Cards are left on the table.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ After all the words have been read, students put the words into groups identifying the rime units.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Ask, &quot;What do the words have in common? Can you think of any other words like 'can'? Do you know what the words mean?&quot; Allow students to articulate sentences with some of the words.</td>
<td></td>
</tr>
<tr>
<td>Blending Task</td>
<td>▪ Teacher presents a written onset and rime unit and demonstrates blending the two parts to read the word.</td>
<td>10 mins</td>
</tr>
<tr>
<td></td>
<td>▪ Work through all target words for each rime and brainstorm others.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Use magnetic letters in onset and rime units as a tactile experience.</td>
<td></td>
</tr>
<tr>
<td>Segmentation Task</td>
<td>▪ Teacher demonstrates by putting down one of the word cards. READ the word, COVER it, and then SOUND it out. Segment words with a mixed rime target word. Students run their finger underneath the words and read them. Students continue until no errors are made with the teacher reading the initial sound/onset cueing the student to say the rime.</td>
<td>5 mins</td>
</tr>
<tr>
<td>Writing Target Words</td>
<td>▪ Write each word and underline the common rime unit.</td>
<td>10 mins</td>
</tr>
<tr>
<td></td>
<td>▪ Present the words in random order and allow students to follow the &quot;LOOK, SAY, COVER, WRITE, CHECK&quot; strategy.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Cue strategies when writing words:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ *say word</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ *close your eyes and visualize the word</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ *say onset and rime separately</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ *say whole word again</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Description</td>
<td>Duration</td>
</tr>
<tr>
<td>-------------------</td>
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</table>
| Text Reading      | - Students read new text. Cue students to retell the story.  
- Introduce the story title. Discuss the topic and cue prior knowledge. Read with students if difficulties noted. Ask students to read a portion of the text each. Highlight target words. | 10 mins  |
| Reflective        | - Students comment on what has been learnt in the session. Articulate 'self-talk'.  
- Reinforcement Game: Stepping Stones Students must step over imaginary stones(witches hats) and read the target words. If they read the words incorrectly, they try again with the teacher’s assistance. | 5 mins   |
APPENDIX B

INTERIM WORD READING TASK

can    ran    Gran    fab    crab
bug    hug    Grug    pot    tot
cat    fat    hat     Kip    trip
dud    stud   thud    spit    fit
pen    hen    when    map    wrap
Nan    man    grab    cab    dab
dug    tug    hot     pot    got
mat    sat    mop     hop    fit
mud    spud   lot     spot    top
men    then   flop    split   hit

Words are to be read down the columns.

DICTATION TASKS

Gran got Dan a crab for his birthday.

Grug dug into the sand with a pot

Kip the cat went on a trip on a ship.

Spud had a split on his head and he was left in the mud.

Brent turned to see the hens running so he started to clap

SPELLING TASK

Children were asked to write 20 words randomly selected from the words in the reading task above.
APPENDIX C

ONSET AND RIME UNITS TAUGHT

Session 1
an, ab
Text: Gran takes Dan shopping
Words used: can Nan Gran ran man cab fab grab crab dab

Session 2
ug, og
Text: Grug the bug's day at the beach
Words used: bug dug hug tug Grug hot pot got spot lot

Session 3
at, ip
Text: Kip's trip on a ship
Words used: cat mat fat sat hat bip Kip dip trip ship

Session 4
ud, it
Text: Spud the dud
Words used: dud mud stud thud spud hit spit sit split fit

Session 5
en, op
Text: The hen house
Words used: pen men hen then when hop mop stop top flop

Session 6
ell, ank
Text: The magic spell
Words used: bell fell sell shell spell bank thank tank Frank drank

Session 7
ail, eat
Text: Sammy the snail
Words used: hail nail mail snail trail heat seat meat treat wheat pleat

Session 8
ame, ine
Text: Dame Nell goes to the ball
Words used: came same lame dame shame fine line shine mine dine

Session 9
ore, ide
Text: Off to the shore
Words used: more sore store shore wore hide ride wide bride slide

Session 10
ask, ight
Text: The sleepover
Words used: bask cask mask task flask sight might night tight fright
Appendix D

Texts

Session 1: Gran takes Dan shopping (an, ab)

I rushed out to meet Gran as the cab pulled up in front of our house. Gran asked the man in the cab to wait for her as she ran to give me a hug. She was going to take me shopping for my birthday. "Are you ready Dan? It's time to buy your birthday present at the pet shop. Have you decided what you want?" "Oh yes I am ready, I want a pet crab!" I cried with glee as I grabbed my coat from Mum. We waved to her as we jumped into the cab. "What a fab gran I have!" I thought to myself.

The cab driver seemed to be driving around in circles. He was lost. "It's getting late Gran and the shop will be closed." I shouted.
"Don't worry Dan," said Gran as she directed the cab driver to the pet shop.

When the cab driver stopped, we ran to the shop but the door was locked and the CLOSED sign was showing. We knocked and knocked at the door. The shopkeeper ran to the door. "It's my birthday and my Gran is going to buy me a pet crab. Please let us in."

The shopkeeper smiled and let us in. I chose a hermit crab and named her Nan after my Gran. She is a fab gran!

169 words. Readability for 100 words. 10 sentences. 108 syllables. Approximately Grade 2 level.

Session 2: Grug the bug's day at the beach (ug, og)

One day Grug the bug decided to go to the beach. It was a beautiful, hot day. It was an Autumn day in April, but the sun was shining. "Typical Melbourne weather!" he thought to himself.

He got a rug and a jug and a pot. "What a lot to lug," he said as he gave his mum a hug.
He jumped into the cab. Off he went to find a spot at the beach.

Grug put the rug down. He dug into the sand using the pot. He wanted to make a sand castle.

As he dug, he felt something tug at his leg. It was a crab.
"I have always wanted a pet crab," he said.
He put the crab into the pot and filled it with some water to take home.

Grug was very pleased with himself as he went home.
He had had a fab day at the beach!

153 words. Readability for 100 words. 11 sentences. 112 syllables. Approximately Grade 2 level.
Session 3: Kip's trip on a ship (at, ip)

Kip the cat lifted his suitcase onto the ship. He was going on a holiday around the world. He was going to visit some islands.

In his suitcase he had his mat and his hat. He had a choc-chip dip to eat on the way too. "Ah! This is the good life," he said. He spread his mat on a beach chair and sat on it.

Kip woke up with a loud bip. It was the ship's horn blowing. The captain was shouting, "Emergency, we are approaching an iceberg. ABANDON SHIP! Find a life jacket and jump into a boat. Do not panic!"

Boy, did I panic! I screamed and ran to find a fat rat running towards me. "Ahhhhhh!"

"Wake up, wake up," said the captain as he sat beside me. "You were having a nightmare."
It was just a bad dream!

146 words. Readability for 100 words. 13 sentences. 125 syllables. Approximately Grade 2 level.

Session 4: Spud the dud (ud, it)

"Bye Spud, wish me luck. I hope I end up as French Fries." Spud had to sit all alone. He was in the field. All his friends had been picked because they were good potatoes.

Spud had a split on his head and Farmer Kit didn’t think he was good enough to be sent to the market. He was a dud. It was starting to rain, so Spud was going to be left in the mud to rot. Spud didn’t fit the description. He had a split on his head and he was ‘spitting chips mad’ about it.

Suddenly, he saw a shadow and he heard a thud. It was Farmer Stud and he was leaning over Spud to pick him. "Yes! He hit the jackpot." After all, that is a potato’s role in life—to grow and get picked, to be made into chips or baked in the oven or cooked in a casserole.

Spud was happy.

160 words. Readability for 100 words. 11 sentences. 114 syllables. Approximately Grade 2 level.
**Session 5: The hen house (en, op)**

Brent followed his map to the hen house. He opened the gate to the pen because he wanted to watch the hen. It was laying eggs. Brent took the eggs and wrapped them in his coat to take back to the house. They will be yummy, he thought.

When he turned he could see all the other chickens running out of the pen. Brent started to clap to get them back into the pen. It was no use so he called for help. The men came running to help. Their caps fell off their heads. They managed to get all the chickens back into the pen.

Brent thanked them and took the eggs into the house. He was hungry now. The eggs would be nice for breakfast.

124 words. Readability for 100 words. 11 sentences. 118 syllables. Approximately Grade 2 level.

**Session 6: The Magic Spell (ell, ank)**

Frank thanked the woman and walked out of the bank. He pulled his coat tightly around him. It was a cold and windy day. Frank was sad. He wished that something exciting would happen.

He looked at an old lady that was standing in the street. She looked like a gypsy. She held a basket and seemed to be selling things. She began to speak. “Do you want to buy a shell? Look it has been made into a bell.”

When Frank looked at the shell that was made into a bell, he could not move. He froze! The old lady gave him a cup and he drank the potion. Suddenly Frank flapped his wings and began to fly through the sky. Frank was happy.

126 words. Readability for 100 words. 12 sentences. 113 syllables. Approximately Grade 2 level.
Session 7: Sammy the Snail (ail, eat)

Sammy the snail left a trail behind him as he tried to reach the post box. The postman was due any minute now. “It’s no use. I am not going to make it.” Sammy had to post the letter before the postman collected the mail at 6 o’clock. He was posting the letter to his friend Max. It was for his birthday.

The letter had a ticket in it. The ticket was a great treat. It was a front row seat at the ‘Championship Snail Trailing’ competition. It was going to be on Sunday in the city. He would also get “All you can EAT!” at Jimmy Joe’s Meat Café.

“I must make it before 6,” he cried. “This must get to Max tomorrow or he will miss out on seeing the competition on Sunday. I must make it. I can, I can! I must, I will, I will! I did, I did! Yeah! I reached the post box just when the postman arrived to collect the mail.

165 words. Readability for 100 words. 10 sentences. 126 syllables. Approximately Grade 2 level.

Session 8: Dame Nell goes to the ball (ame, ine)

“What a shame!” sobbed Dame Nell. “How can I go to the ball without a fine dress. I won’t be noticed by Prince Fred.” Dame Nell lay on her bed and cried.

She heard a sound behind her and as she turned she saw a light. Through the light came a shadow and it spoke to her. “Do not worry my dear. Stand up and will make you be the one that shines tonight. You will dine with the prince and he will only have eyes for you.

With a spark of lightning, Dame Nell’s dress was transformed into the most beautiful gown she had ever worn. The voice told her to follow the blue line of light and walk over the bridge. She did as she was told and found herself at the ball. Oh what a night she had. She dined with Prince Fred all night. They lived happily ever after.

152 words. Readability for 100 words. 12 sentences. 119 syllables. Approximately Grade 2 level.
Session 9: Off to the shore (ore, ide)

We couldn’t wait to get to Dromana. We packed the car with our suitcases. “Don’t forget your hats,” called Dad. Mum, Dad and I were so excited. I wanted to get to the shore. I wanted to collect shells on the shore.

During the ride in the car, my eyes were getting sore. They were sore from looking through the window to see if we were getting closer. “Be patient there’s only ten more minutes to go,” said Mum.

We finally got to the beach house. We saw that there was a playground on it. It had a slide and swings. It was going to be the best holiday.

116 words. Readability for 100 words. 11 sentences. 116 syllables. Approximately Grade 2 level.

Session 10: The sleepover (ask, ight)

For my birthday, all my friends were going to come over for a sleepover. Mum said we could sleep in the family room. We slept on mattresses in sleeping bags. Mum bought me a ‘Bart Simpson’ sleeping bag for my birthday. I was so happy.

The theme for the night was ‘Spooks’. We all brought torches. We told ghost stories at night. Mum also bought these really scary masks to wear. Mum thought that someone might be frightened during the night so she left a flask near a lamp. If anyone was frightened, they could hit the flask with the spoon and Mum would come.

Everyone at the party had a fab of a time and no-one got a fright. Not even the sight of my sister with a facemask on her frightened anyone. It was the best time for all.

141 words. Readability for 100 words. 11 sentences. 123 syllable. Approximately Grade 2 level.
**APPENDIX E**

**List of Words taught can be used for flashcards.**

<table>
<thead>
<tr>
<th>can</th>
<th>Nan</th>
<th>ran</th>
<th>man</th>
<th>Gran</th>
</tr>
</thead>
<tbody>
<tr>
<td>bug</td>
<td>dug</td>
<td>hug</td>
<td>tug</td>
<td>Grug</td>
</tr>
<tr>
<td>cat</td>
<td>mat</td>
<td>fat</td>
<td>sat</td>
<td>hat</td>
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<td>dud</td>
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<td>thud</td>
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<td>sight</td>
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<td>might</td>
<td>fright</td>
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APPENDIX F

Table 2: Pre-Testing

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<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<td>8y5m</td>
<td>8y1m</td>
<td>7y10m</td>
<td>8y10m</td>
<td>8y6m</td>
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<td>(at 3/2005)</td>
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<td>INSTRUCTIONAL TEXT LEVEL</td>
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<td>27</td>
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<td>26</td>
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<td>RIMES UNITS TEST /131</td>
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<td>117</td>
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<td>119</td>
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<td>105</td>
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<td>SOUTH AUST. SPELLING TEST /50</td>
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<td>32</td>
<td>26</td>
<td>24</td>
<td>31</td>
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<td>Spelling Age (accord. To SAST Raw scores)</td>
<td>7.3-8yrs</td>
<td>8.4-8.9yrs</td>
<td>7.3-8yrs</td>
<td>7.1-7.6yrs</td>
<td>8.2-9yrs</td>
<td>7.6-8.4yrs</td>
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Table 3: Post Test Results

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<td>127</td>
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<td>29</td>
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<td>9.2y – 10.2y</td>
<td>8.9y – 9.7y</td>
<td>8.9y – 9.2y</td>
<td>7.8y – 8.6y</td>
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APPENDIX G

This outline was used to record each session.

*This is a sample of A Session Outline used during lessons*

### SESSION OUTLINE

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