

## **ABSTRACT**

Beginning readers with poor phonological and phonemic knowledge have difficulty reading words in isolation and in prose. This impinges on their overall development in the area of literacy. These children often have difficulty decoding words and rely heavily on initial letter cues and individual letter decoding to decipher unknown words in print. This affects how they say and write unknown words in isolation and impacts both on the speed at which they read and their ability to maintain and make meaning.

The hypothesis of this study is that **teaching two letter dependable rime units to underachieving Year One students improves word reading accuracy and fluency in prose**. Research related to improving poor phonological and phonemic awareness has suggested that teaching children onset and rime units may act as a bridge to improving phonemic awareness. Rime units combine letters which can be read as one regular sound spelling unit. This makes it easier for children experiencing difficulties to read these words as they can put the two spoken sounds together (c-an/can) rather than trying to sound out each individual letter. (c-a-n)

Five Year One students with phonological and phonemic difficulties were used for this project. They were withdrawn from their classrooms for a series of ten group sessions during which eight CVC predictable rime units were taught. Each lesson lasted between 45 to 60 minutes. A control group of five children at the same year level with similar difficulties were chosen for comparison. The sessions all took place in the morning during the literacy block.

The results indicated that the intervention group showed significant improvement in their ability to read words in isolation. Both the intervention and control groups showed improvement in their reading levels. According to anecdotal evidence the majority of the intervention group read with improved fluency in their post testing. Findings indicated that some children in the intervention group were beginning to use analogy to relate the rime units taught to previously unknown words. All the children in the intervention group displayed improved confidence during post testing when trying to work out unknown words.

Implications from this study are that the explicit teaching of onset and rime does improve reading of words in isolation, however to significantly impact on prose reading other factors such as their ability to use analogy, RAN and working memory may also need to be considered.

## INTRODUCTION

Reading is a complex process that requires children to develop a range of skills and strategies. For some children this process develops easily for others it is a much slower process that requires some aspects to be explicitly taught. Beginning readers with poor phonological and phonemic knowledge have difficulty reading words in isolation and in prose. This impinges on their overall development in the area of literacy. Oral language development and in particular the development of phonological awareness are crucial for the development of the reading process.

Munro (1998) stated that phonological knowledge is the knowledge of sound patterns and that phonemic knowledge as one aspect of phonological knowledge is the knowledge of individual sound patterns. Phonemic awareness then deals with a reader's knowledge of the smaller units of speech sounds in words, the phonemes, which are the individual sounds in the spoken word. Phonemic knowledge allows the reader to recognise, manipulate and say the individual sounds or sound units within words.

Many underachieving children at early primary level display poor phonological and phonemic knowledge. They often sound out words letter by letter. This is a slow, laborious process for these children. Moseley and Poole state that "Sounding out a word... is a difficult task, requiring extensive knowledge of the sequential dependencies of letter-sound correspondence and making considerable demands on working memory." (Moseley and Poole 2001 pg 165). These children find it difficult to break up words and read them quickly and accurately at the word level. At the sentence level it slows their processing of words within sentences which effects fluency and meaning making as their working memory is overloaded with individual sound combinations. These students have difficulty reading words accurately and automatically.

Phonemic awareness can be improved by teaching rime units to children. Findings by Tunmer (1994, cited in Moseley & Poole 2001) were that the use of onset and rime can serve as a bridge to phonemic awareness. Teaching of rime units rather than individual sounds therefore makes it easier for underachieving children to break up unknown words both in isolation and in prose. This view was supported by Moseley and Poole who stated that "...rime spelling units are largely regular in terms of spelling-sound correspondence and putting two spoken sounds together is easier than blending four or five... Splitting unfamiliar words into onset and rime would seem a promising strategy, especially for less-able readers." (Moseley D. and Poole S, 2001 pg165)

Once children are able to segment words into onset and rime units they need to be able to apply this knowledge to new words. This process of analogy has been discussed in many previous studies including Munro (1998) who stated that students need to be able to transfer their knowledge of one letter cluster sound to words with the same letter cluster thus using what they know about one word to read others. Similar findings were made by Flint and Wood (2004) who said "One natural sound unit is the rime which puts spoken sounds together in units rather than individual letter sounds. Children's ability to use analogies in early reading is linked to the development of phonological awareness and shows that children's progression in learning to read develops along a path of refined use of lexical analogies. During the early stages of learning to read, when children are introduced to single syllable

words, they tend to associate spelling sequences with two large phonological units (i.e. onset-rime units) and so the first type of analogy to emerge is one which represents these phonological structures.” (Flint and Wood 2004 pg 227)

One type of rime unit that can be taught is the dependable rimes. These rime units stay consistent when applied to other onsets and so make it easier for children to develop the ability to make analogies between words. Goswami stated that “We know that end analogies are not only easier to make than beginning analogies, they also occur earlier... This may be because the two kinds of analogies require different phonological skills. End analogies are based on rime units and so are strongly linked with rhyming skill... (Goswami & Mead 1992 pg 161) Once dependable rime units are placed into a child’s long term memory it allows them to transfer that knowledge of a rime unit to other unknown words. This is supported by other studies including Ehri and Robbins (1992) who found that reading unfamiliar words by analogy to known words was an easier process for beginning readers to use than by trying to phonologically recode the words.

The hypothesis of this study is that teaching two letter dependable rime units to underachieving Year One students improves word reading accuracy and fluency in prose. In this study single syllable words will be taught to the targeted group to assist them in recognising, saying and by analogy applying, onset and rime patterns to new words. Few early intervention programs target directly the explicit teaching of two letter dependable CVC rime units as a strategy. The students being targeted in this study have good letter sound knowledge due to focused classroom teaching in prep. They have limited knowledge of sound combinations and are unable to recognise or use onset and rime units in prose. The students read prose slowly relying on picture cues, initial letter and individual letter sounding to decode print. Knowledge of individual words in isolation is limited, though they have had exposure and specific teaching of high frequency words within the classroom environment.

The present study will introduce the targeted children to eight, two letter dependable CVC rime units and investigate the impact it has on their word knowledge and prose reading. The aim is to develop the children’s ability to read words using onsets and rime with a CVC pattern. By teaching the students in this study how to segment words into onset and rimes the intention is to improve the accurate reading of these words in isolation and in prose and by analogy to transfer this knowledge to other words with these dependable rime units.

## **METHODOLOGY**

### **Design:**

This case study uses an OXO design. Gains in the ability of at risk Year 1 students following explicit teaching, to recognise and read dependable rime units in one syllable words both in isolation and in prose, is monitored in a small group intervention situation. This is a naturalistic study which compares two groups of children, a control group and an intervention group.

### **Participants:**

The participants were Year One students who had all been targeted as at risk (being below level 5) from the Literacy Advance pre -testing and were chosen by their class teachers as the most at risk within their grades. The children taking part in the intervention were from three Year One classrooms and none were currently receiving assistance through the Reading Recovery program. One child in the control group began Reading Recovery while the intervention was taking place. All the children in the intervention group were present for the ten sessions. Prior to the intervention the children were reading between text levels 1- 4. The student's running records reflected their teacher's concerns that they were still beginning readers. The testing showed that they had established the ability to use picture and initial letter cues to identify unknown words within text. Their oral reading was generally stilted and errors showed that they were not attempting to maintain meaning. They relied heavily on picture cues and initial letter cues to assist them when reading and displayed one-to-one sound correspondence and some letter cluster knowledge. When reading words in isolation they tended in most cases to sound out using individual letter sound correspondence. Their age, gender, background and entry reading ability are shown below in Table 1.

Student	Age as at 20/5/08 Yrs & mths	Gender	ESL	EMA	Earlier Intervention	Text Level Pre-test
<b>Intervention</b>						
A1	6yrs 2mths	M	Y	N	N	1
A2	6yrs 1mths	M	Y	Y	N	3
A3	6yrs 3mths	F	Y	Y	N	1
A4	6yrs 2mths	M	N	N	N-seeing Paediatrician	1
A5	6yrs 6mths	M	Y	Y	N	4
<b>Control</b>						
B1	6yrs 4mths	M	Y	N	N	3
B2	6yrs 6mths	M	Y	Y	N	3
B3	6yrs 5mths	M	N	Y	Y-Speech/R.R.	2
B4	7yrs 2mths	F	Y	Y	N	1
B5	6yrs 2mths	M	Y	Y	N	1

**Table 1**

## **Materials:**

### **Pre and Post Testing:**

- Clay - Letter Identification –Upper and lower case letter name or sound.
- Clay-Word Reading Task (List B)-reading of 15 high frequency words in isolation.
- Burt Word Reading Test-reading of up to 110 words in isolation printed in differing sizes of type and graded in approximate order of difficulty.
- Rime Unit Test (Dalheim 2004)-reading of rimes in isolation. No time limit was set for this test.
- Benchmark Testing Kits 1 & 2- to provide unseen texts for pre and post testing.
- SPAT-Sutherland Phonological Awareness Test (post test only)

### **Intervention sessions:**

- Teacher made flashcards of whole words
- Teacher made sets of cards of words segmented into onset and rime units
- Teacher made sentence strips of prose
- Teacher made game cards-Bingo cards/word slides
- Magnetic letters and trays
- Teacher designed sentences to be read by children in session 5 to assess progress of rime units introduced in sessions 1-4.(Appendix 3)
- Teacher designed list of 32 words not taught in the intervention (4x 8 rime units to be used in session 10).(Appendix 3)
- Tape recorder
- Rimes Units List/Rime Unit Reinforcement (B. Dalheim 2006)-used as reference for teaching sessions
- “Dan and Kit” teacher designed passage containing rime units taught (Appendix 3) - reading of rime units in prose.

## **Procedure:**

The tasks were administered to all students in the intervention and control groups. Pre and post testing was done individually. Running records were administered using the Benchmark Testing Kits 1 and 2 with Kit 1 being used for pre-testing and Kit 2 for post testing. Additional testing included: Clay’s Letter Identification and Word Reading tasks, the Burt Word Reading Test and Rime Units Test (Dalheim 2004).These tests were used to provide a clear picture of the children’s letter knowledge, sight word recognition, phonemic awareness, rime knowledge and text levels and fluency. The SPAT was used in post testing to look at the intervention group’s phonological development compared to both the control group and the mean for their age group following intervention.

The program was designed to teach the children 2 letter dependable onset and rime patterns (at/ it/ ot/ an/ in/ ap/ ip/op) so that they would be able to efficiently recognise and decode these rime units, apply them to unknown words and read the words smoothly in prose. A new rime unit was introduced each session except for sessions 5 and 10 where the previously introduced rimes were reinforced and testing was administered. The first aspect of the teaching involved the introduction to each rime and brainstorming of words which included that rime unit. Cued articulation was used to provide a visual prompt for these children for both the onset and the vowel of each rime unit. Pictures associated with each word were drawn wherever possible to help those children who were visual learners with word

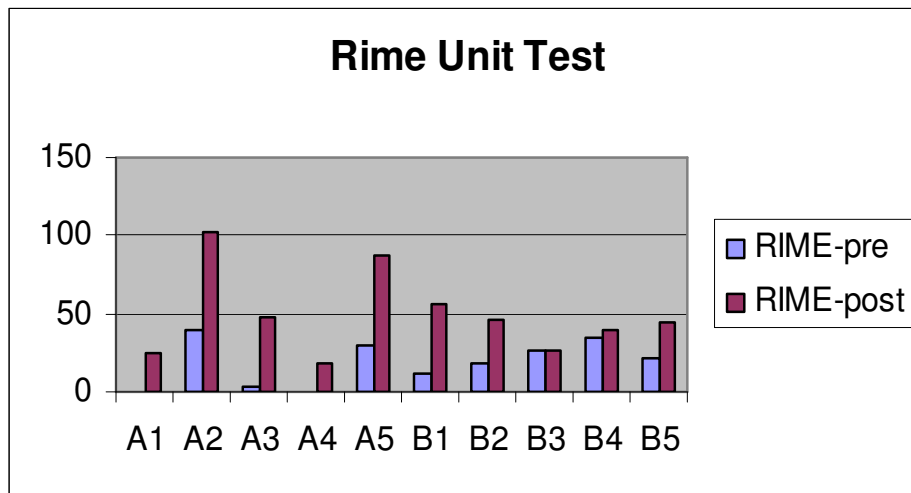
association. In sessions 3, 4 and 5 alterations had to be made to the structure of the lessons as it was noted that students A1 and A4 were confusing vowel sounds during sessions one and two. Therefore vowel sounds were revised for ten minutes at the beginning of these sessions to help cement the children's knowledge of each vowel sound and written symbol.

Next, the children practised the visual segmentation of the words and the auditory and vocal blending of the onsets and rimes through a range of games and activities. The children were gradually exposed to these rimes in each session so that their recognition of each rime would improve over the ten sessions. As the aim was for the children to be able to efficiently recognise and decode these rime units in isolation and in prose, writing of the words and reading of sentences involving the rime units was an integral part of each session. The children were asked to articulate their understanding of the segmenting process at the end of each session to assist them in transferring the new learning that had taken place into their long term memory and apply it in their classroom environment.

Students in the intervention group were withdrawn from their classrooms for ten sessions of between 45 minutes to an hour over a two week period. The students worked together in a small group situation in a withdrawal area. The lessons in detail are attached in Appendix 1.

Post testing of all students from both groups took place following the completion of the two weeks of intervention. The same procedure and materials for the pretesting were used, except for the text levels which were measured using the Benchmark Testing Kit 2 to provide unseen texts for comparison and the use of the SPAT test for assessing phonological development.

**RESULTS:**

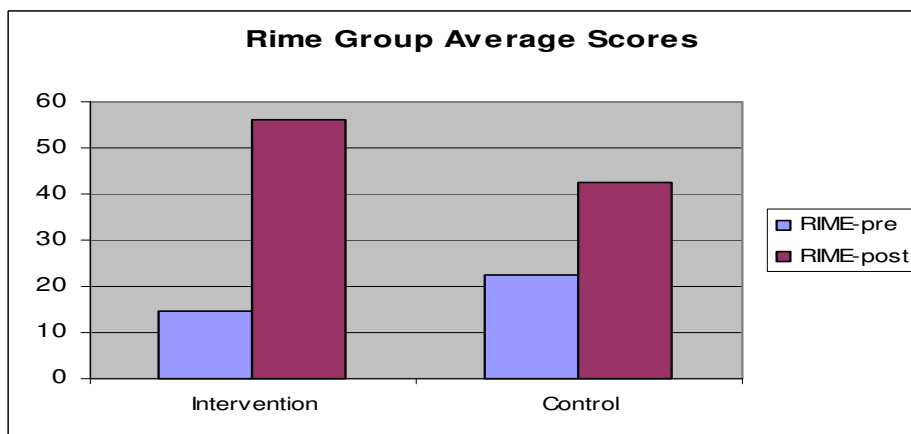


**Chart 1-**Comparison of individual scores for Intervention and Control groups.

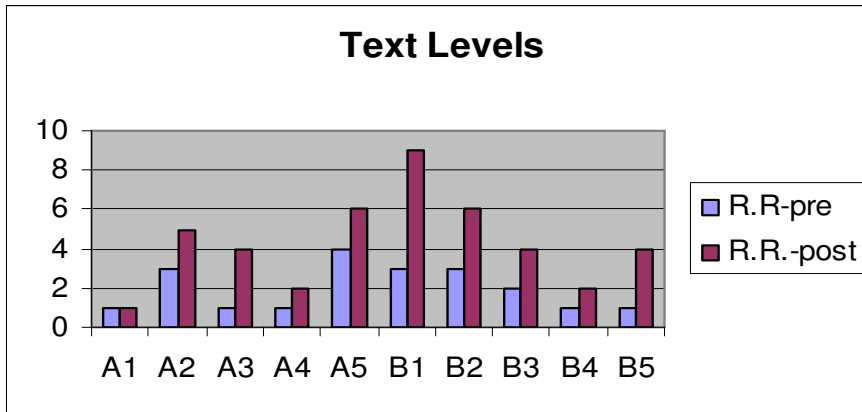
Results indicate support for the hypothesis that teaching two letter dependable rime units to underachieving Year One students improves word reading accuracy and fluency in prose. The reading of isolated words in the Rime Units Test showed improvement for all children in the intervention group. Gains made by the intervention group were greater than those of the control group with 2 children making significant gains. (Chart 1)

Students A2 and A5 scored significantly higher in the post testing than all of the children in the control group.

On average the improvements in reading of words in isolation for the intervention group was double that of the control group. (Chart 2) The average score for the intervention group was 14.8 on the pre test with the same children averaging 56.2 in the post testing. In comparison the average score for the control group was 22.6 on the pretest with the control group only averaging 42.4 on the post testing. Use of the onset and rime process was also significant in this test (Appendix 2 Table 5) with the intervention group using the process in only 1% of attempts in the pre testing compared with 56% in the post testing. In comparison the control group used the onset and rime method in 3% of their attempts in pre testing and only 5% in the post testing. This indicates good uptake of the strategy by the children in the intervention group.



**Chart 2-** Average Rime Scores



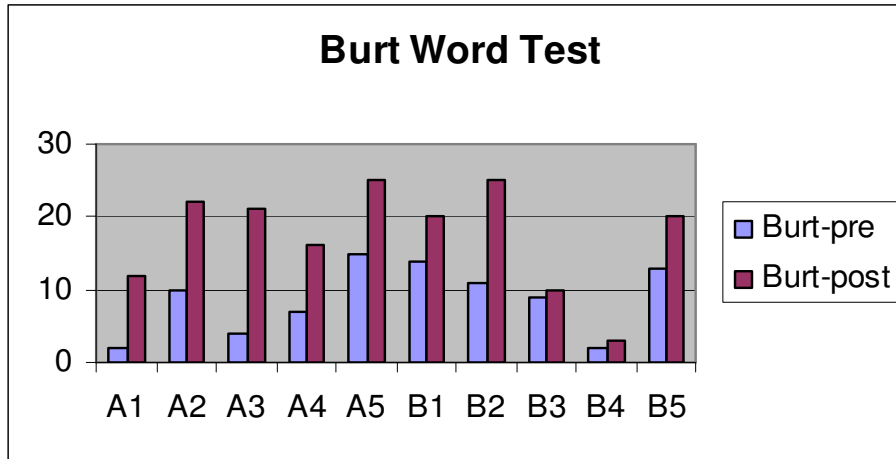
**Chart 3**-Text levels comparisons for intervention and control groups

The trend for transference of onset and rime knowledge to prose reading was inconsistent across the group. Text level scores (Chart 3) shows that 80% of the children in the intervention group made gains in their text levels over the course of the intervention. Child A1 did not increase levels but showed improved accuracy when reading from 90-96%. This may be due in part to the differences in the levels of phonological knowledge and development within the target group with SPAT test results (Chart 5) indicating that student A1 was working one standard deviation below the mean for his year level.

It should be noted that the entire control group also made significant gains over this period. Some of these children were getting additional small group assistance within the classroom from a student teacher (Students B1 and B2) and one child was taking part in Reading Recovery (Student B3).

During ongoing testing in session 5 students A1, A2 and A5 displayed significant uptake of the process of segmenting words into the onset and rime units. (Appendix 2 Table 2). After ten sessions Students A1, A2 and A3 read 75% of the introduced rime unit words within the passage using the onset and rime strategy with Student A5 reading 90%. Student A4 used the onset and rime method for 50% of the rime unit words within the passage. This indicated that the children were able to recognise the rime units taught during the intervention and use the strategy quite effectively in a short prose passage. (Appendix 2 Table 4)



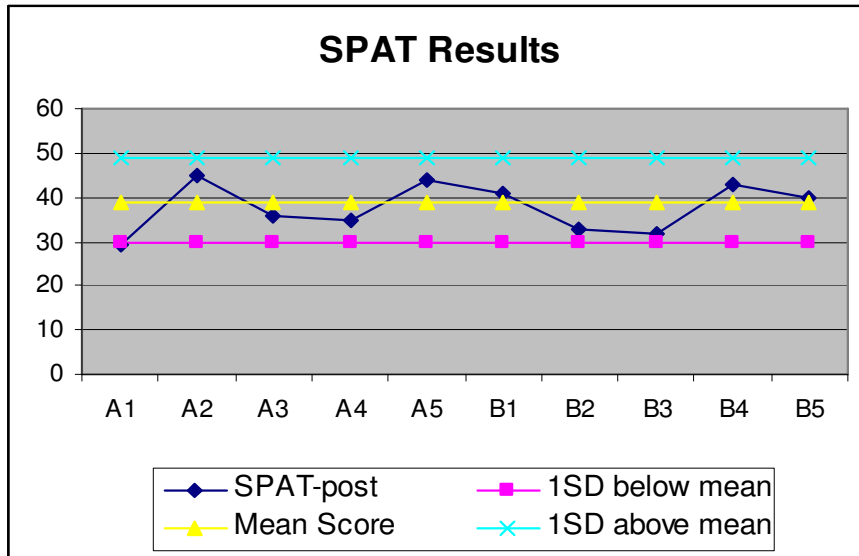


**Chart 4-Burt Raw Score Results**

Burt raw scores (Chart 4) showed significant improvement in the word reading ability of all students who took part in the intervention. Students A2, A3 and A5 went up one to three EAB's (Table 3) which supported the hypothesis that teaching CVC onset and rime units would improve isolated word reading. The remaining 2 students A1 and A4 made pleasing gains from their pre to post testing raw scores in the number of words read accurately. (Table 3) They did not score high enough to register an equivalent age band score but were able to read words containing rime units taught during the intervention.(at, an, pot) Students in the control group also made gains overall however students B3 and B4 showed minimal improvement.

Student	Raw Score		Equivalent Age Bands –EAB- Boys and Girls combined.	
	Pre	Post	Pre	Post
A1	2	12	<5:10-6.04	<5:10-6.04
A2	10	22	<5:10-6.04	6.00-6.06
A3	4	21	<5:10-6.04	5.11-6.05
A4	7	16	<5:10-6.04	<5:10-6.04
A5	15	25	<5:10-6.04	6.03-6.09

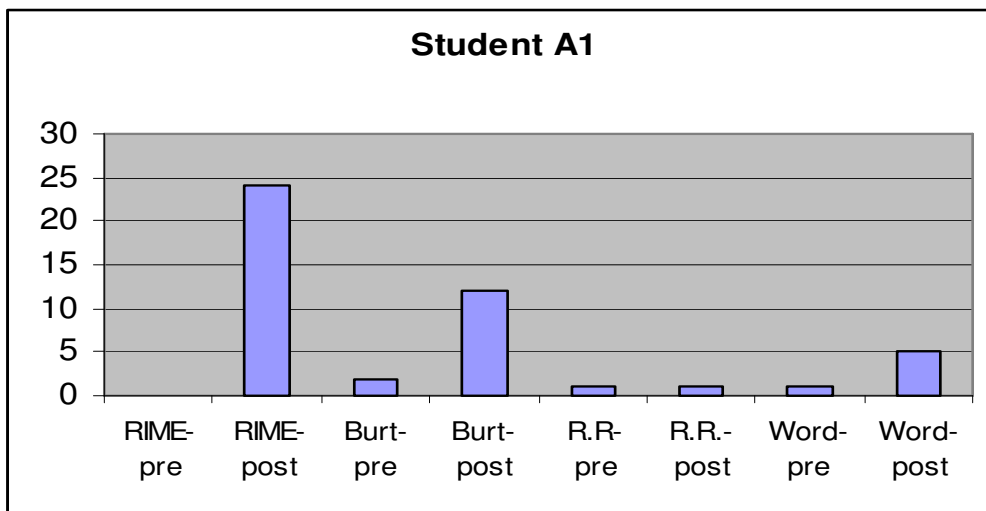
**Table 3-Burt Scores and Age Bands (EAB)**



**Chart 5-SPAT Intervention Group Scores**

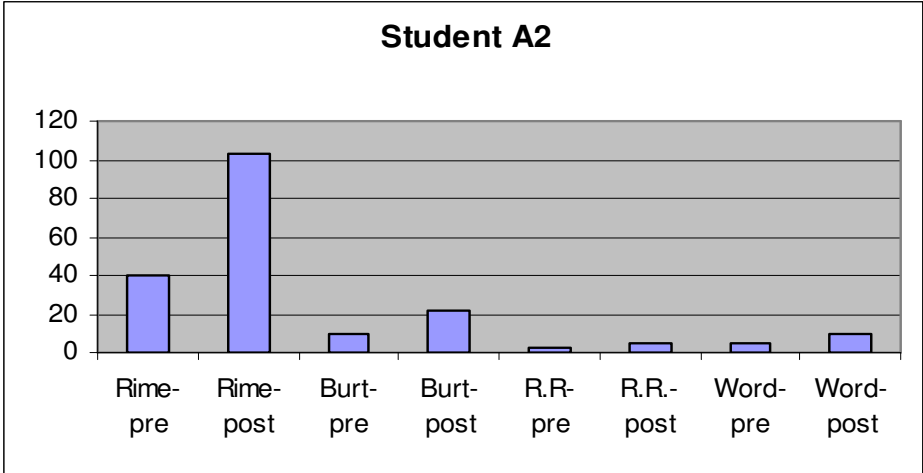
Post testing using the Sutherland Phonological Awareness Test (SPAT) as shown in Chart 5 showed that the intervention group on average performed better than the control group following intervention. Students A2 and A5 were working above the mean average for their age level whilst students A3 and A4 were working slightly under the mean for their age level. Student A1 was still working at one standard deviation below the mean which may indicate why his uptake of the process was not as complete as the other students as his level of phonological development is still low for his year level. Students B1 and B4 from the control group were also working slightly above the mean with student B5 working at the mean for this level. Students B2 and B3 were working almost one standard deviation below the average for Year 1.

At the syllabic and subsyllabic level the intervention group averaged 12.2 out of 16 compared to the control group's 10.4 and at the phonemic level using CVC they performed extremely strongly with an average score of 14.8 out of 16 compared to the control groups 13 out of 16. (Appendix 2 Table 6)



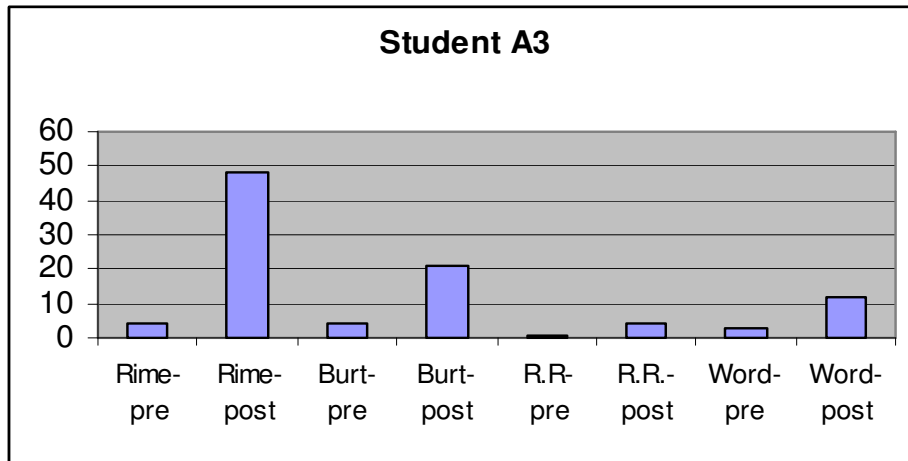
**Chart 6**

**Student A1 (Chart 6)** during oral activities in the lessons demonstrated uptake of the rimes and could manipulate the onset and rime both orally, concretely and in writing. His rime units post test showed significant improvement from 0 in pretesting to 24 words being read 75% of which were read using onset and rime. (Appendix 2 Table 5) His Burt score improved from a score of 2 to 12 with him displaying the ability to say words using both letter by letter decoding and also by recognising and applying two of the rime units taught. (th-at, p-ot) His uptake of the introduced rimes from sessions 1-4 was 75% on the prose sentences read (Appendix 2 Table 2) He did not however transfer this knowledge into his prose reading of an unseen text where he resorted to letter by letter decoding of unknown words though his accuracy increased from 90% to 96% at Level 1. At this stage he is unable to transfer this knowledge from known to unknown words. This was supported by his SPAT results where he scored well at the syllabic and phonemic levels CVC but scored poorly on the phonemic level blends task. (Appendix 2 Table 6)



**Chart 7**

**Student A2 (Chart 7)** made major gains in his ability to use the process of segmenting words into onset and rime in words in isolation, reading more than double the number read in the pre testing. 21% of these were read automatically and 32% were read using the onset and rime strategy. (Appendix 2 Table 5) When reading the prose sentences 83% of the words were read correctly (Appendix 2 Table 2) His skills on text increased 2 levels during the intervention which was a significant increase, with his attempts at unknown words in these texts showing uptake of the rime patterns e.g. th-at / n-ot. His Burt post test displayed an equivalent age band of 6.00-6.06 which was in line with his chronological age and his SPAT score indicated that he was working at almost one standard deviation above his year level. His Burt raw score more than doubled from the pre testing. He displayed transference of the segmenting process on his attempt at a word containing an introduced rime p-ot without any prompting.

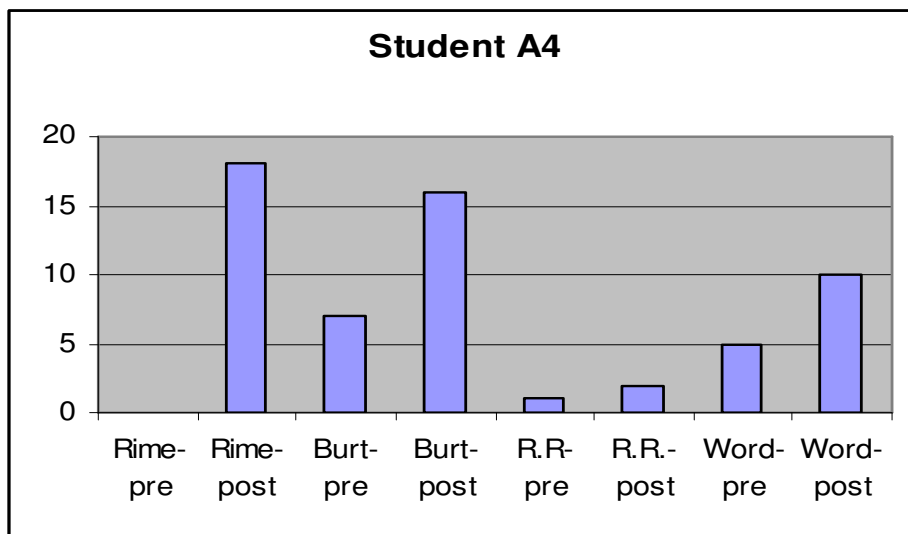


**Chart 8**

**Student A3's (Chart 8)** was reluctant initially to vocalise the rime patterns or attempt to combine the onset and rimes orally, however she would physically move the written patterns or using magnetic letters as other group members said each onset and rime for her. She became more confident with the process and began attempting to segment and blend with teacher support and encouragement.

Testing midway through the intervention (Appendix 2 Table 2) indicated that she was becoming confident with the process and applied the skill in 50% of her attempts at unfamiliar words in prose. In post testing she improved 3 levels to level 4 demonstrating examples of the use of onset and rime (n-ot) as well as beginning to use analogy by transferring the knowledge of this rime to a word which was not included in the intervention (sh-ops)

This was supported further with her Burt score increasing from 4 to 21 (Table 3) and her Word Reading score from 3 to 12 with her demonstrating the ability to use the taught onset and rimes to words in isolation (p-ot) and once again using analogy (th-at). In the post Rime Units Test (Chart 8) she made significant improvement in her ability to segment words into onset and rime units. It should be noted that she successfully recognised the rime units an/in within the middle of 4 and 5 letter words displaying the ability to transfer her new knowledge to other words with more complex clusters and read 50% of the words using the onset and rime method. (Appendix 2 Table 5)

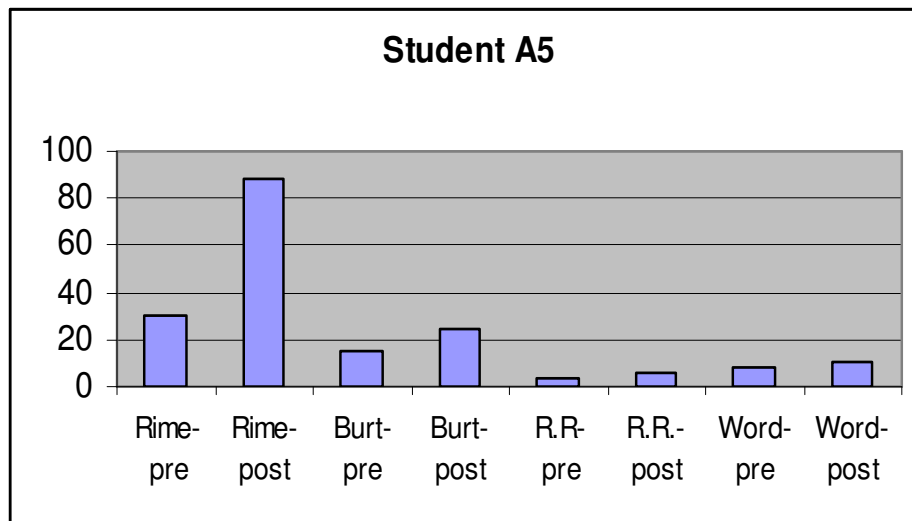


**Chart 9**

**Student A4 (Chart 9)** had difficulty maintaining focus and was reluctant to take part in the activities using avoidance techniques whenever he found a task challenging. Frequent teacher support and encouragement was required to get him to read, write or verbally use onset and rimes.

Testing midway through the intervention program showed that he could decode only one rime unit word in each passage with the overall uptake being 25%. (Appendix 2 Table 2) His oral and written recognition of previously taught rime units and words was inconsistent throughout the intervention process.

Post testing results (Chart 8) reflected some understanding of the segmenting process. In the Rime Units Test he scored 18 compared with 0 in pretesting. He used the onset and rime patterns in 50% of the words he successfully decoded and resorted to letter-by-letter decoding for the remainder of the words. (Appendix 2 Table 5) Reading of words in isolation in the Burt Test and Word Reading Test increased by 50%. His SPAT results (Appendix 2 Table 6) showed strong knowledge at the syllabic, sub syllabic and the phonemic level however he scored 0 on the phonemic level blends. No evidence was seen of transference of the skill into his prose reading though he increased by one text level during the intervention period.



**Chart 10**

**Student A5 (Chart 10)** was a keen participant during the intervention sessions. Observations of him throughout the sessions showed that he could manipulate the rimes orally and transfer that knowledge to other onsets to make new words. He developed RAN skills during the sessions and this was reflected in the mid session testing where he fluently read the prose containing the four introduced rimes with 100% accuracy. (Appendix 2 Table 2)

Student A5's post testing results supported the observations made during the intervention. In the isolated word tasks he clearly indicated an understanding of onset and rime patterns and analogy skills when applying this knowledge to other words containing both rime units taught during the intervention and other previously unrecognised rime units. In the Rime Units test he read 75% of the 88 words correctly using onset and rime patterns including 4 and 5 letter words. He read 73% of his Word Reading task correctly and went up 3 EAB's on his Burt test to 6.03 yrs-6.09yrs which was above his chronological age level. His SPAT results indicated that he was working at a phonological level almost one deviation above the standard for his year level. (Chart 5) His text level improved two levels to level 6 with some attempts at clustering and rime use for unknown words being evident.

## DISCUSSION

Results from this study shows support for the hypothesis that teaching two letter dependable rime units to underachieving Year One students improves word reading accuracy and fluency in prose. Students improved in their word reading accuracy during the intervention with significant improvement being noted in the Rime Units Test for all participants.

The control group generally made less significant gains in their Rime Units Test and yet started from a stronger knowledge base. From observing these children it was noted that they relied heavily on single sounds or blending of some letters to decipher the words. "Instruction with onsets and rimes also demands less facility with blending, another stumbling block for children." (Hines, Spence, Walker and DaDeppo 2007) The control group students who did not receive explicit teaching in segmenting and blending of onset and rimes were still able to make progress but their Rime Unit Tests displayed less use of onset and rimes as a word making strategy. This was supported by their SPAT results which showed that they performed at a lower level compared to the intervention group.

The teaching of the predictable onset and rimes patterns appeared to work successfully with the intervention children. The reinforcement of the rimes each session consolidated the children's knowledge. The oral manipulation of the onsets and rimes was crucial in each session with the use of cued articulation appearing to assist children with correct pronunciation and recognition of the CVC pattern. The visual cue seemed to be of particular assistance to students A1 and A4 who came from a lower sight word and letter knowledge base. The results indicate that the explicit teaching of dependable CVC rime units to underachieving Year One students does improve word reading accuracy. This was supported by their SPAT results which showed at the phonemic level of CVC they performed extremely strongly with an average score of 14.8 out of 16. The trends for the intervention group were positive overall, however to see if these gains were maintained a longer study would need to be undertaken.

Munro (1998) stated that nearly 95 % of the vowels in rimes in primary level text were said in the same way. Student A1 and A4 initially showed some confusion in their ability to recognize and match vowel sounds and symbols after which specific teaching and reinforcement had to take place. The children's knowledge of vowel sounds needs to be firmly imbedded when teaching onsets and rimes with a CVC structure.

There seemed to be a positive effect on the student's prose reading overall. Anecdotally it was noted that the children read more fluently in their post test reading. All students demonstrated an improvement in their prose reading with text levels increasing except for Student A1. This may have been due to the fact that he had not made a link between the reading of the words in isolation and the application of the process into text. His SPAT results (Chart5) also indicated that phonologically he is working at one standard deviation below the expected level for Year 1 students. This would also have impacted on his results. Any future study would need to have a bigger focus on the reading of the rimes in prose to assist the students in making that connection and hopefully making greater gains in prose reading.

There are a number of implications for teaching practice which stems from the study. At a school level it would be useful to target teacher professional development in phonological and phonemic development to assist teachers in knowing what to teach and at what developmental stage it would be most effective. An emphasis on the teaching of predictable rime units at

Year 1 and 2 levels may be beneficial to the development of accurate word reading in isolation and in prose. This could then be built into all sections of the Reading block through teacher modelling, guidance and small group activities. Early intervention focusing on the acquisition of rime units would seem to be crucial to assist in developing the word recognition and reading ability of at risk students.

Findings indicated that some children in the intervention group were beginning to use analogy to relate the rime units taught to previously unknown words. An area to investigate further would be how well the children could make analogies between the rime units taught during the intervention and the application of this to other words with an increasing number of letters or sounds. This is supported by Munro (1998) who stated that “Orthographic knowledge is learnt gradually...They develop a ‘self-teaching mechanism’...This mechanism is based on phonological recoding and uses phonemic awareness. They learn to make analogies between known and unfamiliar words by noting letter group similarities and using the sounds that match the letter cluster in one word to read the others.” (Munro 1998 pg. 15) It would be valuable to see if this self teaching mechanism develops with further exposure to specific rime teaching. If the study was to be repeated it may be advisable to spend more time on each rime unit to give the children the opportunity to consolidate their phonological recoding skills so that they would be able to successfully transfer their rime knowledge to new words. This is supported by Ehri and Robbin’s study (1992) where they stated that for students to read words by analogy using units such as onset and rime they also needed to possess phonological recoding skills. Student A5 was displaying positive signs that this self teaching was beginning to develop. In his pretesting all correct words were spelt out on an individual letter basis. In his post testing he read 75% of words using rime units with 40% of these words being of 4 or more letters. However this was less evident in students A2, A3, and A4 though some examples of recognition of the rime units were evident in their isolated word tasks.

Munro suggests that a child’s phonological knowledge is acquired gradually over time. From looking at his SPAT results Student A1 seemed to be developing at a slower phonological rate than the other members of the intervention group and did not appear to be able to make analogies at this point. He cannot relate what he knows about one word to another consistently and his testing shows he still has some letter confusions. There may be other factors related to phonological development which need to be investigated in any further study such as the impact of working memory. O’Shaughnessy and Swanson as cited by Hines, Spence, Walker and DaDeppo (2007) suggested that “children respond better to remedial strategies that use larger phonological units (i.e. rimes), reducing the memory demands of blending sounds together to form words.”

Anthony et. al. states that there are three interrelated phonological processing abilities that are important for reading and writing: phonological awareness, phonological memory and efficiency of phonological access to lexical storage (RAN). (Anthony, Williams, Mc Donald & Francis 2007) Therefore areas that could be examined further in relation to the present study are the effects of working memory and RAN on the acquisition of onset and rime knowledge in less able readers.

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# APPENDIX 1

## Teaching Unit: Dependable Rime Units

The aim of the program was to teach the children 8 X 2 letter dependable onset and rime patterns (at/ it/ ot/ an/ in/ ap/ ip/op) and to see if they could apply this knowledge to new words. Ideas taken from Rime Unit Reinforcement (B. Dalheim 2006) were incorporated into the lesson sequences.

**N.B: Any new activity or change in the lesson sequence has been bolded.**

### SESSION 1:

Lesson Sequence	Description	Time Allocation
Introduction	Inform the students of the aim of the session.	1 min
Explicit instruction	Introduce letter sounds e.g. a and t. Say the sounds to and with the students. Use cued articulation visual cues to assist children with vowel recognition and pronunciation. Put them together visually to show the rime unit e.g. ‘ at’ (magnetic letters)	3-4 mins
Brainstorming	List all the words that they know containing that rime on a chart highlighting the rime in the same colour each time. Where possible draw a picture to match the word. Tell the children that if they can read a word e.g. cat which has the rime ‘at’ at the end they can read fat, hat or any word that contains ‘at’	10 mins
Segmenting and blending the letter cluster	Children say each of the words as you point to it using the onset consonant and the rime: e.g. b-at /bat, c-at/cat. Give the children the opportunity to do this with: <b>Word slides.</b> In pairs get them to take turns to read each word they make.	5 mins
Visualise and write the words.	In the books provided have the children read the words, close their eyes, make a picture of it in their heads and then write the word. Highlight the rimes for each child and tick the letters in correct sequence.	5 mins

Write a sentence	As a group compose sentences that contain words with the rime.	5 mins
Read prose	Read our sentence together. Get children to come out and highlight the rime words in the sentence. The students will illustrate copies of each days rime sentences. Make these into books for the children at the conclusion of session 10.	5 mins
Activity-recognise and discriminate the rime words from other similar words.	Bingo Children to place a counter on the rime words on their cards as the teacher displays and says each word.	5 mins
Share Time consolidation	Discuss with the group what they know about the rime. Have the children articulate how they will use this knowledge to help them when reading. e.g. When reading I will... I know when I'm reading I can...	5 mins

## SESSION 2:

<b>Lesson Sequence</b>	<b>Description</b>	<b>Time Allocation</b>
Introduction	Inform the students of the aim of the session. Revise previously taught rime units from sessions 1.	1 min
Explicit instruction	Introduce letter sounds e.g. i and t. Say the sounds to and with the students. Use cued articulation visual cues to assist children with vowel recognition and pronunciation. Put them together visually to show the rime unit e.g. 'it'	3-4 mins
Brainstorming	List all the words that they know containing that rime on a chart highlighting the rime in the same colour each time. Where possible draw a picture to match the word. Tell the children that if they can read a word e.g. bit which has the rime 'it' at the end they can read hit or any word that contains 'it'	10 mins
Segmenting and blending the letter cluster	Say each word as you point to it using the onset consonant and the rime: e.g.	5 mins

	b-it /bit, f-it/fit. Give the children the opportunity to do this with: <b>Magnetic Letters and trays</b> -Children make the words with their magnetic letters. Have them physically break them apart and put them back together as they say the words.	
Visualise and write the words.	In the books provided have the children read the words, close their eyes, make a picture of it in their heads and then write the word. Highlight the rimes for each child and tick the letters in correct sequence.	5 mins
<b>Revise previously taught words</b>	<b>Play Tic Tac Toe in a circle with the words we have learnt in sessions 1-3.</b>	10 mins
Write a sentence	As a group compose sentences that contain the rime.	5 mins
<b>Read prose and illustrate</b>	Read our sentence together. Get children to come out and highlight the rime words in each sentence. <b>The students will illustrate copies of the rime sentence.</b>	5 mins
<b>Reading of prose from sessions 1&amp;2</b>	<b>Have children practise reading the sentences we devised from the first 2 sessions to each other. Hear each child read the sentences as they all illustrate today's sentence</b>	10 mins
Activity-recognise and discriminate the rime words from other similar words.	Bingo Children to place a counter on the rime words on their cards as the teacher displays and says each word. The teacher's flashcards include other similar words which do not contain the rime.	5 mins
Share Time consolidation	Discuss with the group what they know about the rime. Have the children articulate how they will use this knowledge to help them when reading. E.g. When reading I will... I know when I'm reading I can...	5 mins

### SESSION 3:

Lesson Sequence	Description	Time Allocation
Explicit instruction	<b>Discuss vowel sounds-a, e, i, o, u, using visual prompt and cued articulation-use known picture cues and rhyme to assist children- a-ants on the apple/ e-empty eggs/ i-itchy indians/ o-orange octopus/ u-ugly uncles.</b>	<b>10 mins</b>
Introduction	Revise previously taught rime units on flashcards. Inform the students of the aim of the session.	1min
Explicit instruction	Introduce letter sounds e.g. o and t. Say the sounds to and with the students. Use cued articulation visual cues to assist children with vowel recognition and pronunciation. Put them together visually to show the rime unit e.g. ‘ot’	3-4 mins
Brainstorming	List all the words that they know containing that rime on a chart highlighting the rime in the same colour each time. Where possible draw a picture to match the word. Tell the children that if they can read a word e.g. cot which has the rime ‘ot’ at the end they can read hot or any word that contains ‘ot’	10 mins
Segmenting and blending the letter cluster	Say each word as you point to it using the onset consonant and the rime: e.g. c-ot /cot, h-ot/hot. Give the children the opportunity to do this with:  <b>Matching onset and rimes card packs.</b> Each child makes the onsets and rimes for that session and is timed when reading them.	5 mins
Visualise and write the words.	In the books provided have the children read the words, close their eyes, make a picture of it in their heads and then write the word. Highlight the rimes for each child and tick the letters in correct sequence.	5 mins
Write a sentence	As a group compose a sentence that contains the rime.	5 mins

Read prose	Read our sentence together. Get children to come out and highlight the rime words in the sentence. The students will illustrate copies of the days rime sentence.	5 mins
Activity-recognise and discriminate the rime words from other similar words.	Bingo Children to place a counter on the rime words on their cards as the teacher displays and says each word. The teacher's flashcards include other similar words which do not contain the rime.	5 mins
Share Time consolidation	Discuss with the group what they know about the rime. Have the children articulate how they will use this knowledge to help them when reading. e.g. When reading I will... I know when I'm reading I can...	5 mins

#### SESSION 4

Lesson Sequence	Description	Time Allocation
Explicit instruction	Discuss vowel sounds-a, e, i, o, u, using visual prompt and cued articulation-use known picture cues and rhyme to assist children- a-ants on the apple/ e-empty eggs/ i-itchy indians/ o-orange octopus/ u-ugly uncles.	10 mins
Introduction	Revise previously taught rime units on flashcards. Inform the students of the aim of the session.	1 min
Explicit instruction	Introduce letter sounds e.g. a and n. Say the sounds to and with the students. Use cued articulation visual cues to assist children with vowel recognition and pronunciation. Put them together visually to show the rime unit e.g. ' an'	3-4 mins
Brainstorming	List all the words that they know containing that rime on a chart highlighting the rime in the same colour each time. Where possible draw a picture to match the word. Tell the children that if they can read a	10 mins

	word e.g. can which has the rime 'an' at the end they can read Dan, fan or any word that contains 'an'.	
Segmenting and blending the letter cluster	Say each word as you point to it using the onset consonant and the rime: e.g. c-an /can, f-an/fan. Give the children the opportunity to do this with: <b>Word slides:</b> In pairs get them to take turns to read each word they make.	5 mins
Visualise and write the words.	In the books provided have the children read the words, close their eyes, make a picture of it in their heads and then write the word. Highlight the rimes for each child and tick the letters in correct sequence.	5 mins
Write a sentence- <b>include rime units covered.</b>	As a group compose a sentence that contain the rime. ( <b>Try to add words from other rime units taught e.g. it/ got/sat</b> )	5 mins
Read prose/ <b>recognition and application of rime unit knowledge.</b>	Read our sentences together. Get children to come out and highlight the rime words in the sentence <b>and any other rimes they recognise</b> . The students will illustrate a copy of the rime. <b>Have each child read the sentence to you and observe their ability to match the onset and rime units to make the words.</b>	5 mins
Activity-recognise and discriminate the rime words from other similar words.	<b>Memory:</b> <b>The children in groups of 3 or 4 play a game of memory with the 'an' words and other words previously covered in sessions 1-4. Points are given for each pair found and read aloud and 2 points given for each 'an' pair that is found and read aloud.</b>	10 mins
Share Time consolidation	Discuss with the group what they know about the rime. Have the children articulate how they will use this knowledge to help them when reading. e.g. When reading I will... I know when I'm reading I can...	5 mins

## SESSION 5 (REVISION AND CONSOLIDATION)

Lesson Sequence	Description	Time Allocation
Explicit instruction	Children match vowel symbols with pictures that start with the letter. Have the children tell the teacher orally what each vowel sound is and use the visual cue for that sound.	10 mins
Introduction	Inform the students that the aim of the session is to revise the previously taught rimes.	1 min
Revision	Revise all rime units from session 1-4. Look at the rimes and model them using cued articulation to assist with vowel pronunciation and recognition. The students then repeat this procedure with the teacher using cued articulation signs, visual rime pattern prompts and saying the rime orally.	5 mins.
Oral/ Visual Reinforcement of Words	Using flashcards of the words from sessions 1-4 say the words together quickly and smoothly.	5 mins
Oral/ Visual Reinforcement of Words	The children try to say the words smoothly using a matching onset and rimes card pack consisting of 4 words for each rime unit taught(a total of 16 words) Listen to each child say them individually.	10 mins
Word Consolidation-Bingo Game	Play bingo using cards with a combination of the previously introduced rimes. The teacher reads out words in random order from the 4 recently introduced rimes.	10 mins.
Reading Of Prose	<b>The children read teacher designed sentences to the teacher.</b>	15 mins

	(See Appendix 2) Smooth blending of rimes and fluent reading is encouraged.	
Share Time Consolidation	Discuss with the group what they know about the rimes. <b>Have the children articulate how they have been using this knowledge to help them when they have been reading in class.</b>	5 mins

### SESSION 6:

Lesson Sequence	Description	Time Allocation
Introduction	Revise previously taught rime units on flashcards. Inform the students of the aim of the session.	1 min
Explicit instruction	Introduce letter sounds e.g. i and n. Say the sounds to and with the students. Use cued articulation visual cues to assist children with vowel recognition and pronunciation. Put them together visually to show the rime unit e.g. 'in'	3-4 mins
Brainstorming	List all the words that they know containing that rime on a chart highlighting the rime in the same colour each time. Where possible draw a picture to match the word. Tell the children that if they can read a word e.g. bin which has the rime 'in' at the end they can read fin, pin or any word that contains 'in'.	10 mins
Segmenting and blending the letter cluster	Say each word as you point to it using the onset consonant and the rime: e.g. b-in /bin, f-in/fin. Give the children the opportunity to do this with: <b>Matching onset and rimes card packs: Each child makes the onsets and rimes for that session reads them independently asking for help</b>	5 mins



	<b>if needed</b> and is timed when reading them.	
Visualise and write the words.	In the books provided have the children read the words, close their eyes, make a picture of it in their heads and then write the word. Have the children highlight the rimes and tick the letters in correct sequence.	5 mins
Write a sentence	As a group compose sentences that contain the rime. (Try to add words from other rime units taught e.g. it/ got/sat)	5 mins
Read prose. <b>Reinforce application of onset and rime in prose reading.</b>	Read our sentence together. Get children to come out and highlight the rime words in the sentence. The students will illustrate a copy of the sentence. <b>As this is occurring tape the children reading the sentence. Let them listen to themselves. Discuss with them individually what they liked about how they read the sentence. Prompt if needed e.g. did you read the word smoothly / did you put the word together in your head before you read it?</b>	20 mins
Activity-recognise and discriminate the rime words from other similar words.	Bingo Children to place a counter on the rime words on their cards as the teacher displays and says each word. The teacher's flashcards include other similar words which do not contain the rime.	5 mins
Share Time consolidation	Discuss with the group what they know about the rime. Have the children articulate how they will use this knowledge to help them when reading. e.g. When reading I will... I know when I'm reading I can...	5 mins

## SESSION 7:

Lesson Sequence	Description	Time Allocation
Introduction	Revise previously taught rime units on flashcards. Inform the students of the aim of the session.	1 min

Explicit instruction	Introduce letter sounds e.g. a and p. Say the sounds to and with the students. Use cued articulation visual cues to assist children with vowel recognition and pronunciation. Put them together visually to show the rime unit e.g. ‘ap’	3-4 mins
Brainstorming	List all the words that they know containing that rime on a chart highlighting the rime in the same colour each time. Where possible draw a picture to match the word. Tell the children that if they can read a word e.g. cap which has the rime ‘ap’ at the end they can read lap, map or any word that contains ‘ap’	10 mins
Segmenting and blending the letter cluster	Say each word as you point to it using the onset consonant and the rime: e.g. c-ap /cap, l-ap/lap. Give the children the opportunity to do this with: <b>Magnetic Letters and trays</b> -Children make the words with their magnetic letters. Have them physically break them apart and put them back together as they say the words.	5 mins
Visualise and write the words.	In the books provided have the children read the words, close their eyes, make a picture of it in their heads and then write the word. Have the children highlight the rimes and then tick the letters in correct sequence.	5 mins
Write a sentence	As a group compose a sentence that contains the rime. (Try to add words from other rime units taught e.g. it/ got/sat)	5 mins
Read prose Reinforce application of onset and rime in prose reading.	Read our sentences together. Get the children to come out and highlight the rime words in each sentence. The students will illustrate copies of the rime sentence. As this is occurring tape the children reading the sentence. Let them listen to themselves. Discuss with them individually what they liked about how they read the sentence. Prompt if needed e.g. did you read the word smoothly / did you put the word	5 mins

	together in your head before you read it?	
Activity-recognise and discriminate the rime words from other similar words.	Bingo Children to place a counter on the rime words on their cards as the teacher displays and says each word. The teacher's flashcards include other similar words which do not contain the rime.	5 mins
Share Time consolidation	Discuss with the group what they know about the rime. Have the children articulate how they will use this knowledge to help them when reading. e.g. When reading I will... I know when I'm reading I can...	5 mins

### SESSION 8:

Lesson Sequence	Description	Time Allocation
Introduction	Revise previously taught rime units on flashcards. Inform the students of the aim of the session.	1 min
Explicit instruction	Introduce letter sounds e.g. i and p. Say the sounds to and with the students. Use cued articulation visual cues to assist children with vowel recognition and pronunciation. Put them together visually to show the rime unit e.g. 'ip'	3-4 mins
Brainstorming	List all the words that they know containing that rime on a chart highlighting the rime in the same colour each time. Where possible draw a picture to match the word. Tell the children that if they can read a word e.g. dip which has the rime 'ip' at the end they can read hip, lip or any word that contains 'ip'.	10 mins
Segmenting and blending the letter cluster	Say each word as you point to it using the onset consonant and the rime: e.g. d-ip /dip, h-ip/hip. Give the children the opportunity to do this with: <b>Matching onset and rimes card</b>	5 mins

	<b>packs: Each child makes the onsets and rimes for that session. Read to self read to partner and then read and be timed when reading them.</b>	
Visualise and write the words.	In the books provided have the children read the words, close their eyes, make a picture of it in their heads and then write the word. Have the children highlight the rimes and then tick the letters in correct sequence.	5 mins
Write a sentence	As a group compose a sentence that contains the rime. (Try to add words from other rime units taught e.g. it/ got/sat)	5 mins
Read prose Reinforce application of onset and rime in prose reading.	Read our sentences together. Get children to come out and highlight the rime words in each sentence. (The students will illustrate copies of each days rime sentences at home each night. Make these into books for the children at the conclusion of session 10) As this is occurring tape the children reading the sentence. Let them listen to themselves. Discuss with them individually what they liked about how they read the sentence. Prompt if needed e.g. did you read the word smoothly / did you put the word together in your head before you read it?	5 mins
Activity-recognise and discriminate the rime words from other similar words.	Bingo Children to place a counter on the rime words on their cards as the teacher displays and says each word. The teacher's flashcards include other similar words which do not contain the rime.	5 mins
Share Time consolidation	Discuss with the group what they know about the rime. Have the children articulate how they will use this knowledge to help them when reading. e.g. When reading I will... I know when I'm reading I can...	5 mins

## SESSION 9:

Lesson Sequence	Description	Time Allocation
Introduction	Revise previously taught rime units on flashcards. Inform the students of the aim of the session.	1 min
Explicit instruction	Introduce letter sounds e.g. o and p. Say the sounds to and with the students. Use cued articulation visual cues to assist children with vowel recognition and pronunciation. Put them together visually to show the rime unit e.g. 'op'	5 mins
Brainstorming	List all the words that they know containing that rime on a chart highlighting the rime in the same colour each time. Where possible draw a picture to match the word. Tell the children that if they can read a word e.g. bet which has the rime 'op' at the end they can read cop, hop or any word that contains 'op'.	10 mins
Segmenting and blending the letter cluster	Say each word as you point to it using the onset consonant and the rime: e.g. c-op /cop, h-op/hop. Give the children the opportunity to do this with: <b>Matching onset and rimes card packs:</b> Each child makes the onsets and rimes for that session and is timed when reading them.	5mins
Visualise and write the words.	In the books provided have the children read the words, close their eyes, make a picture of it in their heads and then write the word. Highlight the rimes for each child and tick the letters in correct sequence.	5 mins
Write a sentence	As a group compose a sentence that contain the rime.	5 mins
Read prose Reinforce application of onset and rime in prose reading.	Read our sentences together. Get children to come out and highlight the rime words in each sentence. The students will illustrate copies of the rime sentences. As this is occurring tape the children reading the sentence. Let them listen to themselves. Discuss with them	5 mins

	individually what they liked about how they read the sentence today. Prompt if needed e.g. did you read the word smoothly / did you put the word together in your head before you read it?	
Activity-recognise and discriminate the rime words from other similar words.	Bingo The children place a counter on the rime words on their cards as the teacher displays and says each word. The teacher's flashcards include other similar words which do not contain the rime.	5 mins
Share Time consolidation	Discuss with the group what they know about the rime. Have the children articulate how they will use this knowledge to help them when reading. e.g. When reading I will... I know when I'm reading I can...	5mins

### SESSION 10: (REVISION AND CONSOLIDATION)

Lesson Sequence	Description	Time Allocation
Introduction	Inform the students of the aim of the session.	1 min
Revision	Revise previously taught rime units from session 1-4/ 6-9. Look at the rimes and model them using cued articulation to assist with vowel pronunciation and recognition. The students then repeat this procedure with the teacher using cued articulation signs, visual rime pattern prompts and saying the rime orally.	5 mins.
Oral/ Visual Reinforcement of Words	Say quickly and smoothly the onsets and rimes from sessions 1-9 and the words they make e.g. c-at/cat	5-10mins
<b>Analogy-Testing of 32 words containing the 8 rime units.</b>	<b>Each child reads a series of 32 words (4 words per each of the 8 rime units) that were not taught during the intervention to the teacher.(Appendix 3)</b>	25 mins.

Activity-recognise and discriminate the rime words from other similar words.	The remainder of the children play rime word bingo games.	
Reading Of Prose	The children read the sentences we had made in each session first to a partner and then to the teacher. Smooth blending of rimes and fluent reading is encouraged.	15 mins
Share Time Consolidation	Discuss with the group what they know now about the rimes. Have the children articulate how they will use this knowledge to help them when reading. e.g. Whenever I am reading I will... I know now that when I'm reading I can...	5 mins-children return to classroom and then called individually for testing.
<b>Reading Of Prose</b>	<b>Testing of individual children on teacher designed prose passage(Appendix 3)</b>	<b>30mins</b>

## APPENDIX 2 - Tables

Student	Sentence 1 Rime Units Words Read Correctly	Sentence 2 Rime Units Words Read Correctly	Sentence 3 Rime Units Words Read Correctly	Sentence 4 Rime Units Words Read Correctly	% read correctly
A1	3/3	2/3	3/3	1/3	75%
A2	3/3	3/3	2/3	2/3	83.3%
A3	2/3	2/3	1/3	1/3	50%
A4	1/3	1/3	1/3	1/3	33.3%
A5	3/3	3/3	3/3	3/3	100%

Table 2-Reading of rime words in prose sentences from Sessions 1-4

Students	Teacher Designed Rime Word List		Passage-Dan & Kit	
	Rime words read accurately (4 words x 8 rime units) Raw Score Total = 32 words	% of Rime words read accurately (rounded to nearest %)	% of Rime Units Read In text /23 (rounded to nearest %)	% of words read using onset/rime method.
A1	27	84%	78%	75%
A2	30	94%	91%	75%
A3	30	94%	60%	75%
A4	23	72%	30%	50%
A5	32	100%	87%	90%

Table 4-Teacher designed rime list & prose passage session 10



Student	Words read Total = 149		% of Times Rime Units Used For Reading Of Words (rounded to nearest %)		% of Words Read Automatically	
	Pre	Post	Pre	Post	Pre	Post
<b>A1</b>	0	24	0%	75%	0%	0%
<b>A2</b>	40	103	5%	32%	5%	21.3%
<b>A3</b>	4	48	0%	50%	0%	8.3%
<b>A4</b>	0	18	0%	50%	0%	0%
<b>A5</b>	30	88	0%	75%	10%	5.6%
<b>Average-Rime Units</b>			<b>1%</b>	<b>56%</b>		
<b>Control</b>						
<b>B1</b>	12	56	8%	16%	33.3%	14.2%
<b>B2</b>	18	46	0%	0%	11.1%	8.6%
<b>B3</b>	26	34	4%	4%	19.2%	50%
<b>B4</b>	35	39	0%	0%	0%	.2%
<b>B5</b>	22	44	5%	5%	22.7%	20.4%
<b>Average-Rime Units</b>			<b>3%</b>	<b>5%</b>		

**Table 5-Rime Unit Test Results**

Student	Subsets			
	Syllabic & Subsyllabic Level /16	Phonemic Level CVC /16	Phonemic Level Blends /12	Grapheme- Phoneme Correspondences /14
<b>A1</b>	12	13	4	5
<b>A2</b>	10	15	9	11
<b>A3</b>	12	15	3	6
<b>A4</b>	13	16	0	6
<b>A5</b>	14	15	6	9
<b>Average</b>	<b>12.2</b>	<b>14.8</b>	<b>4.4</b>	<b>7.4</b>
<b>B1</b>	12	13	6	10
<b>B2</b>	8	12	6	7
<b>B3</b>	9	12	5	6
<b>B4</b>	12	14	8	9
<b>B5</b>	11	14	7	8
<b>Average</b>	<b>10.4</b>	<b>13</b>	<b>6.4</b>	<b>8</b>

**Table 6-SPAT Test Results**

## APPENDIX 3 - attachments

Post testing passage (*Teacher Designed*)

### Dan and Kit

Name \_\_\_\_\_ Date \_\_\_\_\_

**Dan got** up from his **nap**.

He put on his **cap** and **top** and **sat** down to  
**fan** his face.

It was a **hot** day, so he had a **sip** of his  
drink to wet his **lips** and put some water on his **lap**.

His dog **Kit** came over and **bit** him on the  
leg.

**Dan got** up and began to **hop** and kicked  
the **tin bin**.

He said “**Kit**, you are **not** to do **it**. My leg  
isn’t for you to eat!”

He **got** his **bat** and went off to play.

R.W. = 92 words

Rime Unit Words = 23=1:4 words

Score \_\_\_\_\_

## **Sentences tested in Session 5**

1. The cat sat on the hat.
2. Kit hit the ball with a mit.
3. The baby got hot in the cot.
4. Jan ran to get his fan.

**Teacher designed Rime Units Test-Words with rime patterns-at/it/ot/an/in/ap/ip/op**

<b>bat</b>	<b>fat</b>	<b>pat</b>	<b>rat</b>
<b>fit</b>	<b>kit</b>	<b>lit</b>	<b>pit</b>
<b>dot</b>	<b>lot</b>	<b>pot</b>	<b>rot</b>
<b>Dan</b>	<b>fan</b>	<b>Nan</b>	<b>pan</b>
<b>din</b>	<b>kin</b>	<b>sin</b>	<b>win</b>
<b>map</b>	<b>rap</b>	<b>sap</b>	<b>yap</b>
<b>nip</b>	<b>pip</b>	<b>rip</b>	<b>tip</b>
<b>bop</b>	<b>lop</b>	<b>pop</b>	<b>sop</b>

Name \_\_\_\_\_

Date \_\_\_\_\_

**Word List of words covered im sessions (bolded) and those used in teacher designed rime test (not bolded)**

**At**

**cat hat mat sat**

bat fat pat rat

**It**

**bit hit mit sit**

fit kit lit pit

**Ot**

**cot got hot not**

dot lot pot rot

**An**

**ban can man van**

Dan fan Nan pan

**In**

**bin fin pin tin**

din kin sin win

**Ap**

**cap lap nap tap**

map rap sap yap

## **Ip**

**dip hip lip sip**  
nip pip rip tip

## **Op**

**cop hop mop top**  
bop lop pop sop