

Abstract

Reading is a message getting, problem solving activity as supported by Clay, M. M. (2005) which involves a variety of skills that need to be explicitly taught and practiced both with scaffolding and independence.

This study explored the impact of explicit teaching with young learners in their first year of school.

The hypothesis for this study explores the notion that: *Explicitly teaching prep children how to take words apart, by blending and segmenting, including using onset and rime, will improve word reading accuracy in isolation and in prose reading.*

It involved direct teaching in small groups that targeted focussed word work. Opportunities were provided for independent practice and guided practice within the classroom, along with incidental teachable moments that occurred daily during familiar reading time.

This research was conducted in a Prep Classroom in a rural Primary School. Within the school there is a strong Literacy focus on developing opportunities for explicit teaching and independent practice for young readers and writers. The teaching and learning opportunities in this classroom support all students to learn how to problem solve as readers and writers at letter level, word level and text level, as supported by Clay, M. M (2005b) and Munro, J.K. (2010).

Six prep students were chosen from this classroom for the intervention - which was the focus of this study. An additional six students were matched via classroom data and chosen from another prep classroom in the same school. These students formed the control group for this study.

The intervention group and control group were both pre-tested prior to the intervention group receiving ten sessions of explicit teaching. It was at this pre test stage when the study was changed, and the control group were dismissed. This was an unexpected turn of events – and was the result of an enthusiastic student of this unit applying her new-found knowledge in her classroom (and is discussed in greater depth in the body of this research).

The results of this study found that considerable gains were made for the six students who received explicit teaching within the intervention group. However, the real surprise of this study was that considerable gains were also made by these same six students prior to the intervention commencing. This occurred within a whole-class setting where their teacher began to utilise her learning from this study in her everyday teaching. This was not via planned sessions, but through incidental, but relevant and explicit teaching.

As such the data demonstrates that the Multiple Levels of Text Processing Model – MLOTP (Munro, J.K. 2010) has considerable impacts for students within whole-class settings and small group interventions.

Introduction

Reading is a complex skill that requires processing at a number of levels. The Multiple Levels of Text Processing Model – MLOTP (Munro, J.K. 2010) identifies that in order to read successfully we simultaneously make use of a number of strategies (how) within the context of text (what) and that this is controlled through our self-management and regulatory strategies (when). It also suggests that students need to be taught to work firstly at word level before moving to sentence level and conceptual level. They utilise their knowledge at the topic level and dispositional level, whilst using strategies to assist them to manage their own reading and understand the purpose of each text.

The MLOTP model, Munro, J.K. (2010) proposes that children need good strategies and knowledge at the word level in order to move easily to the next stage. This is supported by Hill, S (2006), who states “children develop an increasing awareness of the phonemes in spoken language as they begin to attend to words, syllables, rhyme and alliteration.” As such, students who are moving through the Developmental Pathway of reading need to have solid foundations firstly in phonological awareness.

In order to develop student skills at the word level, they need to build on their knowledge of words moving from single letters/sounds to blending, segmenting and recoding, (Munro, 2010). Clay, M.M (2005) suggests that children need a variety of opportunities in each lesson to learn to build words and take them apart (segment and blend). She also states that “the aim of working with words in isolation is to have the student know about how words work and be able to use this awareness while reading texts and while writing”.

Students who are competent readers utilize many and varied strategies. One such strategy is the ability to segment words into useful chunks, which then enables the reader to decode tricky words and read on the run. Kaye, E.L (2008), states that proficient readers use large, efficient units when taking words apart - they don't try to solve words phoneme-by-phoneme or letter-by-letter. According to Munro, J.K. (2010), students need to be code breakers. They need to have a good working knowledge of letters and sounds and utilize a number of strategies to assist them in breaking the code and unlocking words.

Students also need to be able to recall rapidly the sound of each letter and letter cluster and have a growing bank of known sight words. Kaye, E.L. (2008) noted that breaking words is supported by fast recognition of letter forms and fast links to sound. This is known by the acronym of RAN (Rapid Automatisated Naming). If letter /sound knowledge is not automatic, it causes delays in the child being able to blend, segment and recode. This then impacts on the child's ability to read with fluency and construct meaning from the text.

Analogy (the ability to make links between words) is another useful strategy. It provides students with the ability to use their knowledge of one word to scaffold

another unknown word. Goswami (1988, 1994), Goswami and Mead,(1992) as cited in Iverson, S.(1997) comment that “orthographic analogies and onset and rime, shows that very young children can make links between known and new words when the word is split into two parts; onset and rime”.

Fountas, I.C and Pinnell, G.S. (1999) support the importance of children having the opportunity to practice reading familiar prose, daily.

Therefore, as educators, we need to assist students to segment and break words into parts. Being able to segment and blend efficiently and quickly enables students to read words accurately and attend to the meaning of the text. Students who struggle with word-by-word reading often focus all their energy on decoding and lose meaning and understanding of the text they are reading. This needs to be practiced on a daily basis.

Research by Clay, M.M. (2005b) as cited in Kaye, E.L (2008) suggests that competent readers break words in many different ways. Therefore as educators, we need to scaffold children to learn these different ways and choose what is best for them to use independently. Utilising The Collins Model of Teaching and Learning (Collins, Brown & Newman, 1989), we as teachers model, coach, scaffold and fade and encourage students to articulate, reflect and explore.

My own experience - I have taught children in their first years of schooling for most of my teaching career (18 years) supports this thinking. I have found that many prep students have difficulty gaining momentum with their reading due to difficulties at word level and in unlocking tricky and unknown words both in isolation and in prose.

As such I developed an intervention program with Prep students, targeting word level. The key focus was teaching children to segment and blend words, including using onset and rime to assist their word reading accuracy.

My Hypothesis states that:

“Explicitly teaching blending and segmenting to prep students, including using onset and rime will improve word reading accuracy in isolation and in prose.”

Method

Design

This investigation is a case study where intervention is aimed to increase word reading accuracy involving segmenting and blending words using onset and rime. Pre and post-testing was used to determine individual and group trends.

Participants

The participants in this study are twelve Prep students from the same Catholic Primary School. There are six students from one class, and six from the class next door.

Participants were initially chosen and matched according to their text levels in June. They were chosen as they were identified as reading under level five instructional text level.

When the formal pretesting began for the action research (in September) the control students and the students for intervention were no longer aligned (refer to Figure 1, participants, below). As a result of this, and after much discussion with colleagues and Melbourne University teaching staff, it was decided to work only with the intervention group.

Many of the participants exhibited a solid grasp of letter/sound knowledge. The participants exhibited that they could read a number of high frequency words with accuracy, while many demonstrated that they could solve unknown words using letter by letter sounding/segmenting and basic use of letter clusters and known word rime to assist their reading.

Figure1 - Participants

Student	Age in months	Letter ID (Feb)	Word Test (Feb)	Reading Level (Feb)	Reading Level (June)	Pre Test Text Level	Pre Test SPAT (Sept)	Pre Test Ohio Word	Pre Test Rime (Sept)
Intervention									
AA	80	51/54	1	0	3	12	36	18/20	3 letter - 21/24 4 letter - 54/74 5 letter - 26/51
BB	73	52/54	1	0	1	7	29	14/20	3 letter - 17/24 4 letter - 26/74 5 letter - 10/51
CC	80	49/54	1	0	1	9	40	16/20	3 letter - 20/24 4 letter - 41/74 5 letter - 21/51
DD	80	2/54	0	0	0	8	41	8/20	3 letter - 18/24 4 letter - 42/74 5 letter - 22/51
EE	81	37/54	0	1	3	12	40	17/20	3 letter - 21/24 4 letter - 42/74 5 letter - 19/51
FF	74	/54	0	0	1	11	35	17/20	3 letter - 19/24 4 letter - 44/74 5 letter - 29/51

Student	Age in months	Letter ID (Feb)	Word Test (Feb)	Reading Level (Feb)	Reading Level (June)	Pre Test Text Level	Pre Test SPAT (Sept)	Pre Test Ohio Word	Pre Test Rime (Sept)
Control									
A1	77	15/54	0	0	1	3	26	3/20	3 letter - 6/24 4 letter - 2/74 5 letter - 0/51
B2	74	9/54	1	0	1	3	26	4/20	3 letter - 2/24 4 letter - 0/74 5 letter - 0/51
C3	80	13/54	0	0	1	3	29	7/20	3 letter - 8/24 4 letter - 0/74 5 letter - 0/51
D4	70	25/54	1	0	0	7	29	16/20	3 letter - 20/24 4 letter - 36/74 5 letter - 13/51
E5	80	11/54	0	0	0	2	17	5/20	3 letter - 2/24 4 letter - 0/74 5 letter - 0/51
F6	77	47/54	1	0	2	10	38	17/20	3 letter - 22/24 4 letter - 48/74 5 letter - 20/51

Materials

The following materials were used for testing purposes in this study:

- The participants were tested Pre and Post, using the SPAT (Sutherland Phonological Assessment Test)
- The participants were tested Pre and Post, using the OHIO Word Test as cited in (Clay,M.2008)
- The participants were tested Pre and Post, for their Reading Levels using the PM Benchmark Kit
- The participants were tested Pre and Post, using the RIME test (Dalheim, 2004)

The following materials were used for teaching purposes:

- 37 dependable rime units flashcards
- magnetic letters, trays and white boards
- blending/segmenting flashcards of nonsense and known onset and rime combinations.
- Chunks game (SMART KIDS)
- THRASS magnetic blends/rime cards
- Flying Start Text levels for Guided Reading
- Flip Books (SMART KIDS)
- Blend Bingo Game (A Sound Way)
- Flight Path Game (A Sound Way)
- Head Ons and Add a Tail Game (A Sound Way)
- Blast Off (A Sound Way)
- Oral Word Family Activities (A Sound Way)
- Keys to unlocking tricky words (K-3 Teacher Resources .com)

Procedure

Prior to Intervention

Prior to the Pre-testing and the intervention sessions that occurred in September and Post testing in early October, incidental teaching occurred daily during the Literacy block for the Intervention students within the whole class. This was the result of my own learning throughout this study. My excitement as we were learning about the model, led to the implementation of some strategies within my classroom teaching. In hindsight I should have curbed my enthusiasm, as my action research was about to commence! Students were taught a variety of strategies that were housed in their imaginary "Reading Toolbox". A session called "Book Box time," was held daily at the commencement of each Literacy block. During this time, students read from familiar take home texts and poems from their Poetry Anthology. As the teacher, I would roam and listen to each student read individually. It was at these times that powerful teachable moments occurred chosen by the teacher to demonstrate useful strategies for problem solving unknown words.

As the teacher in the research classroom, I was extremely explicit with the children, explaining these useful strategies and demonstrating how to look closely at unknown words and problem solve them efficiently as a whole class example on the whiteboard. Examples included using strategies such as blending and segmenting words and slowly articulating words whilst running their finger under the word to track it from left to right.

Comments cannot be made on the teaching involved in the control group classroom, as there were no opportunities provided to observe any lessons. The school follows the ClaSS Literacy model and values explicit teaching and practice. Comments can however be made on the results from the pre-testing of the control group in the findings of this research project.

It was the comparison between the intervention and control group that led to the decision to terminate the use of the data of the control group. This was because the instructional reading levels and rime test results were noticeably higher for the intervention group and this would skew results in the post test as students were no-longer matched as like abilities in instructional text levels.

Intervention

After students were pre tested, a lesson outline was developed to assist students in improving their skills in segmenting and blending words using onset and rime. This included single onset and two letter and three letter blends, inflections and split digraphs.

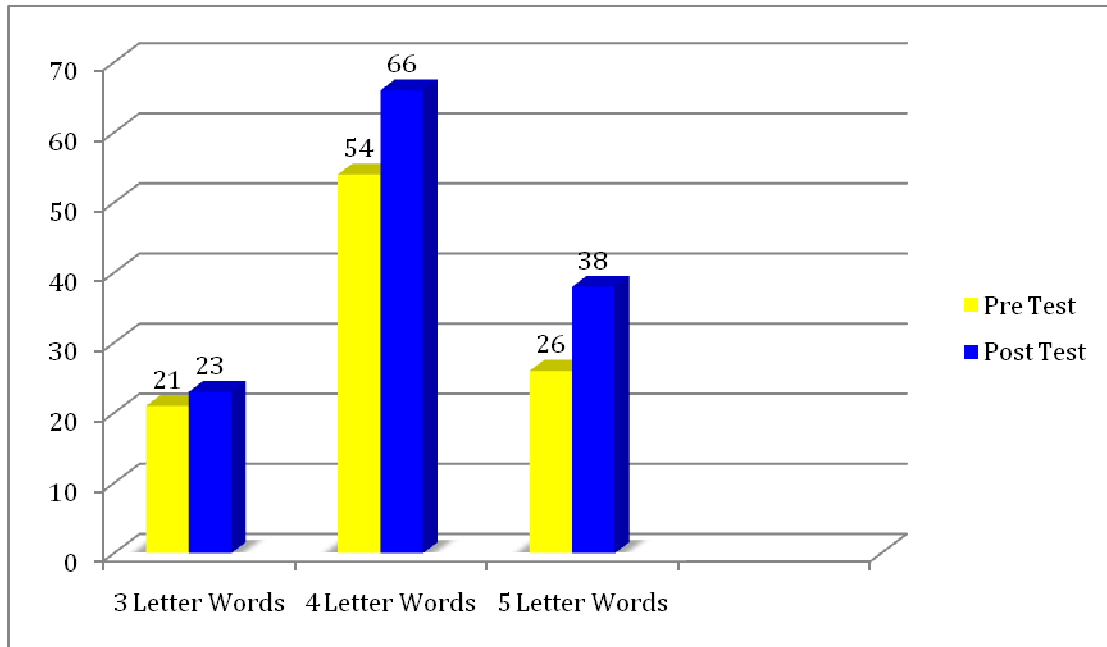
A ten-lesson outline was designed using the Collins Model of Teaching and Learning, Collins, Brown & Newman (1989) where teachers model, coach, scaffold and fade and encourage students to articulate, reflect and explore.

The six students were taken through each lesson as a small take-out group during literacy time twice a day for 15 minutes each. The students were explicitly taught a variety of strategies for problem solving unknown words in text. They were reminded about these strategies at Book Box Time (9.15 – 9.30 daily) as a whole class and during explicit lessons during the Literacy Block. Many of these strategies were also taught incidentally as the teacher roamed classroom and listened to each student read from their familiar readers and next take home book.

The lessons aim to:

- Improve recognition of syllables,
- Improve student's recognition of letter clusters, (onset and rime), inflections and split digraphs'.
- To increase strategies for solving unknown and tricky words by providing keys to unlocking tricky words.
- To teach and improve students' abilities to segment and blend words in efficient ways with RAN (Rapid Automatisated Naming)
- To provide opportunities for independent practice and teacher scaffolding daily.

Figure 2
RIME Test Results
Student AA



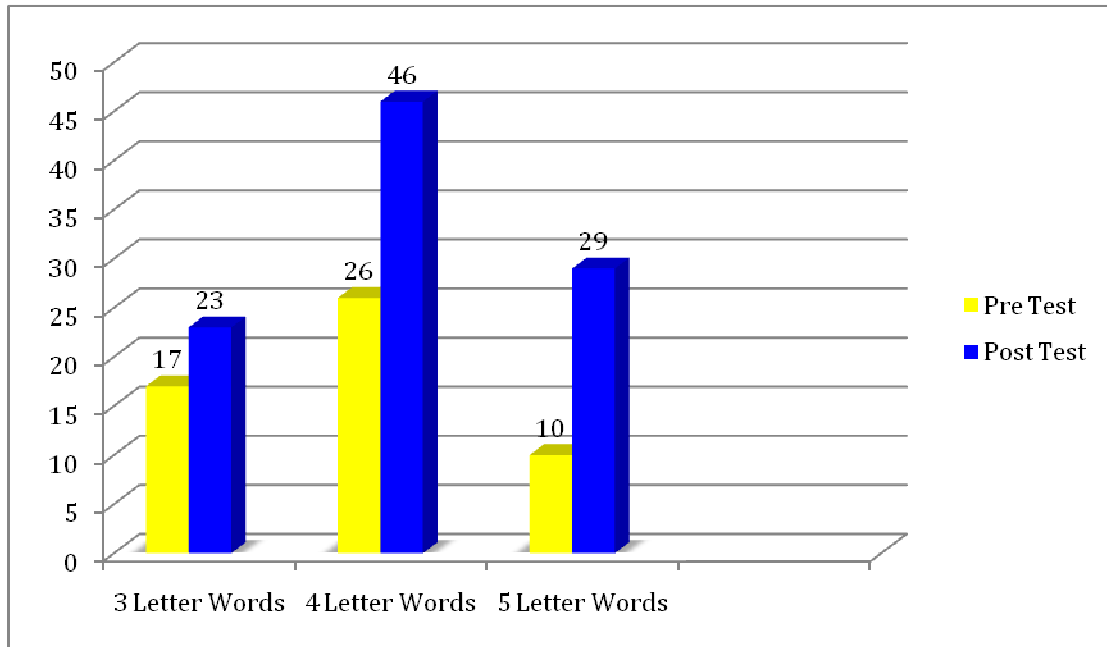
Student AA 1

Student AA made measurable gains in reading accurately 4 and 5 letter words.

Anecdotal notes showed that this could be due to this student having made accurate links with words by using analogy to assist in solving words. This student also was noted to have become competent in recognizing words with a split digraph

Student AA made an overall increase of 25.74%.

Figure 3
RIME Test Results
Student BB



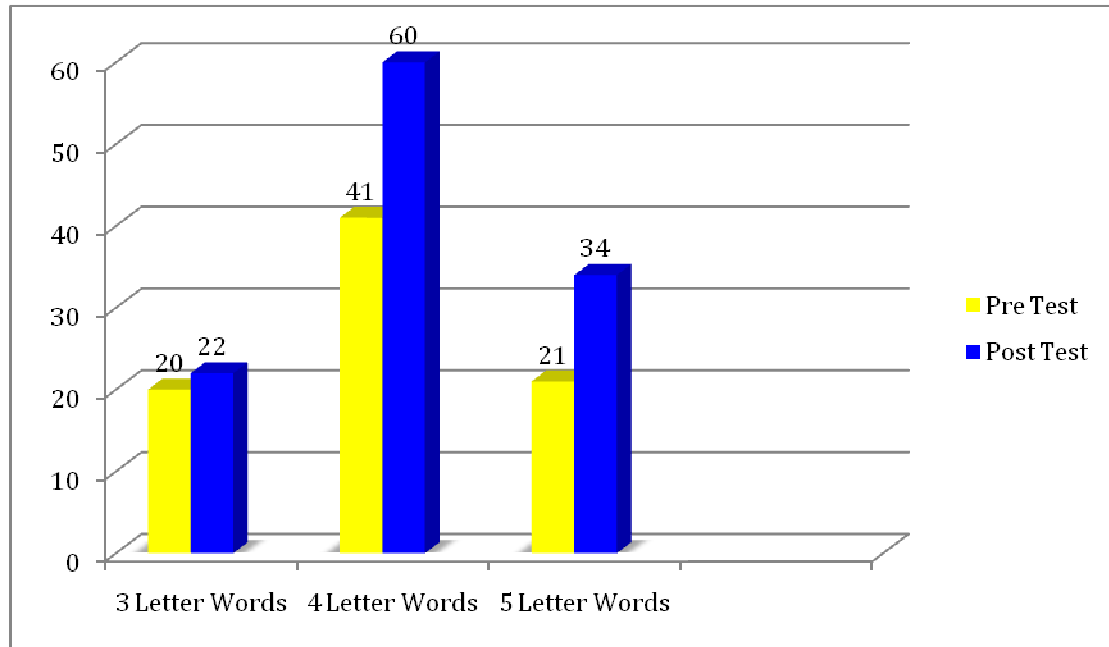
Student BB 1

Student BB appears to have made considerable gains in reading 4 letter words with an improvement of 20 words from pre to post test. The student also improved in reading 5 letter words accurately with a gain of 19 words from pre to post test.

Anecdotal notes indicate that this student was not proficient at reading words that contained a split digraph. This student will need further explicit teaching and scaffolding in this area along with independent practice both in isolation and in prose.

Student BB made an overall increase of 84.91% from pre to post test. This could be due the student using their skills in segmenting and blending as a useful strategy to unlock unknown words. This student was also noted to have used analogy to solve some words in the test.

Figure 4
RIME Test Results
Student CC



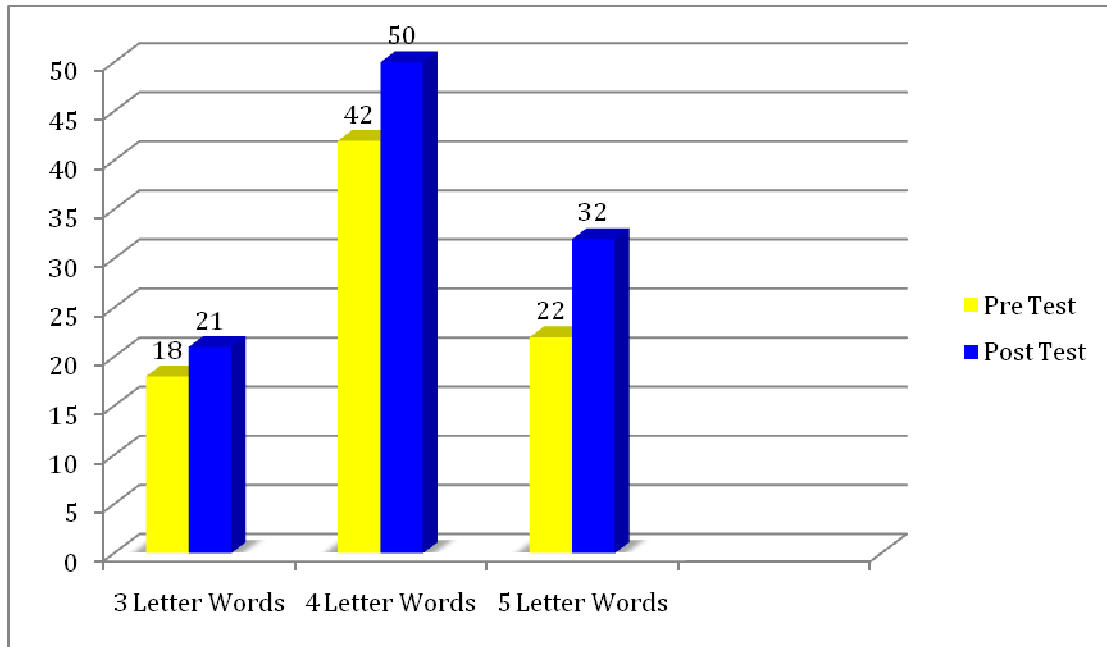
Student CC 1

Student CC appears to have made considerable gains in reading 4 letter words with an improvement of 19 words from pre to post test. The student also improved in reading 5 letter words accurately with a gain of 13 words from pre to post test.

Student CC made an overall increase of 41.46% from pre to post test.

This could be due to the student using segmenting and blending as an efficient strategy to assist in solving unknown words. This student was also noted to have used their knowledge of inflections, analogy and split digraphs to also assist in solving unknown words

Figure 5
RIME Test Results
Student DD

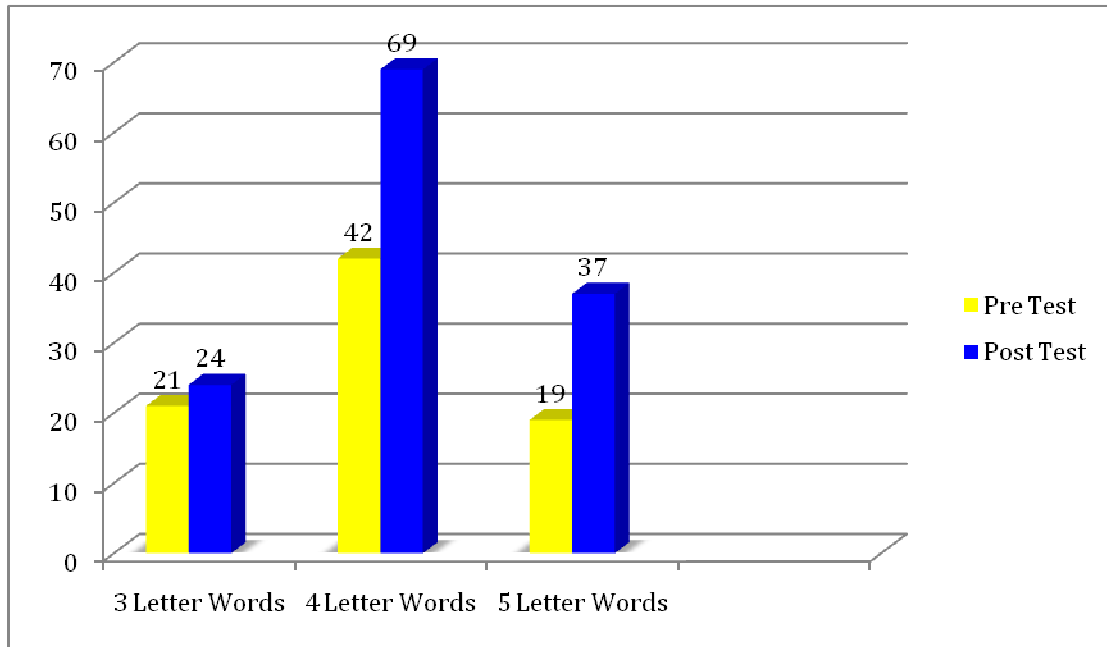


Student DD 1

Student DD appears to have made some gains in reading 4 letter words with an improvement of 8 words from pre to post test. This student also improved in reading 5 letter words accurately with a gain of 10 words from pre to post test. Student DD made an overall 58.54% increase from pre to post test. This could be due to the student using segmenting and blending as a useful strategy to solve unknown words. The recorder noted this anecdotally.

Anecdotal notes also indicate that this student was not proficient at reading words that contained a split digraph. This student will need further explicit teaching and scaffolding in this area along with independent practice both in isolation and in prose.

Figure 6
RIME Test Results
Student EE



Student EE 1

Student EE made an considerable gain, with an improvement of 27 words from the initial pre test to post test with reading 4 letter words in isolation accurately.

Student EE made an impressive increase overall of 58.54%

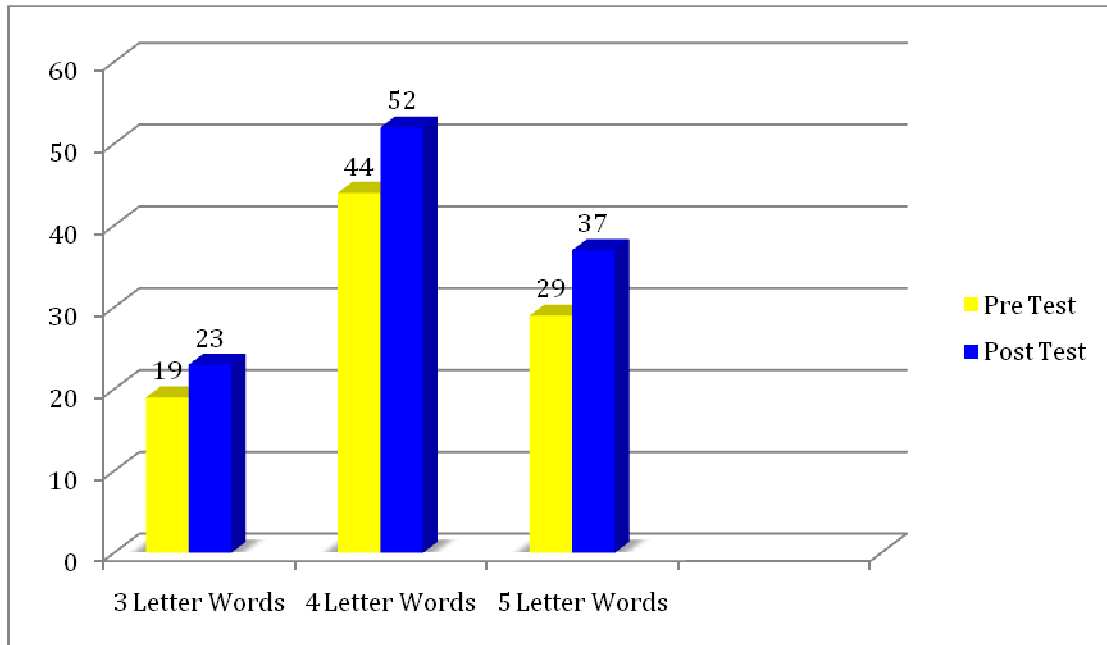
Anecdotal notes showed that this student also made accurate links with words by using analogy to assist in solving words.

This could be due to the student becoming competent in recognizing words with split digraphs. Anecdotal notes also indicate that this student had automatised many of the 3, 4 and 5-letter words from pre to post testing.

Figure 7

RIME Test Results

Student FF



Student FF 1

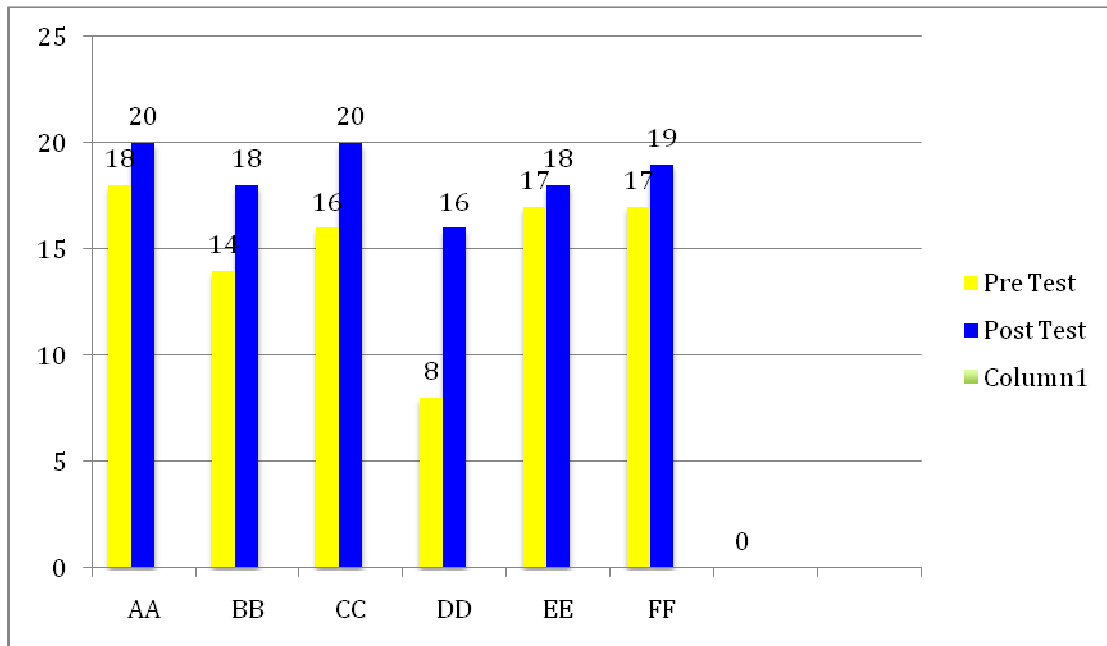
Student FF made some gains in accurately reading both 4 and 5 letter words.

Student FF made an overall increase in word reading accuracy of 21.74% from pre to post test.

Anecdotal notes indicate that student FF will require further explicit teaching and independent practice to assist in automatising 4 and 5 letter words. Explicit teaching and independent practice will also be provided for this student to ensure they are confident in solving words with split digraphs and they will be further scaffolded to use analogy and inflections to solve unknown words.

Figure 8

OHIO WORD Test Results



It would appear from the results that all students made gains in word reading accuracy in isolation from pre to post test.

Student DD made considerable gains doubling their word reading score from pre to post test. The results indicate that student DD made a 100% increase from pre to post test. This could be due to the student being more confident in her abilities to solve unknown words. Anecdotally it was noted that student DD used her skills in segmenting and blending as a useful strategy to unlock many of these words. It was also noted that this student showed a new awareness of how to solve some words with a split digraph.

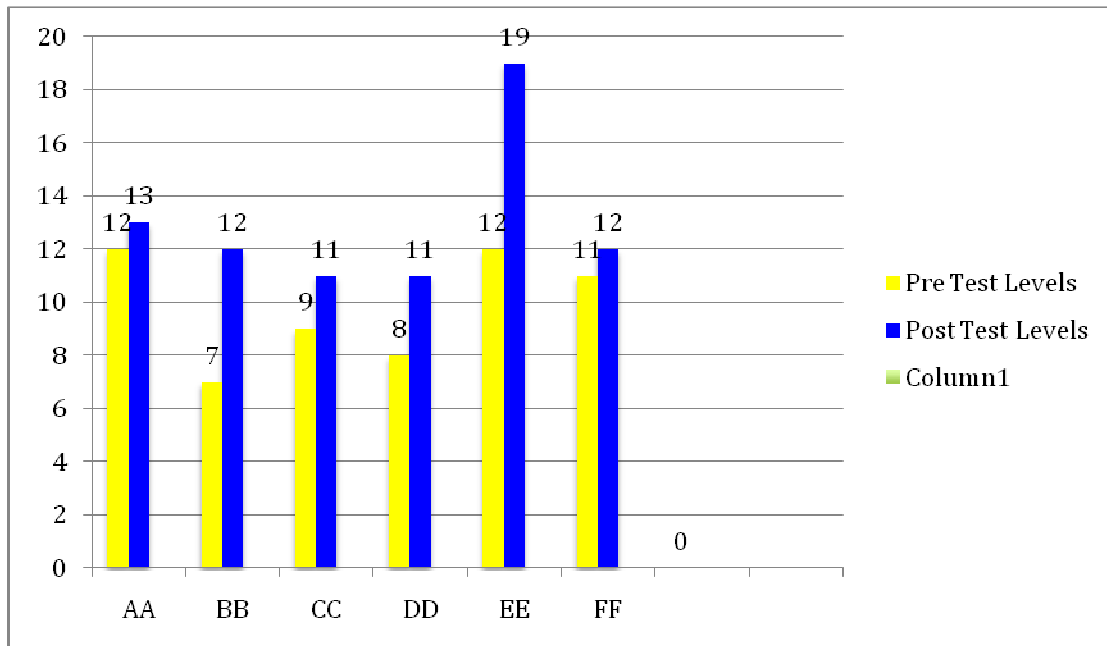
Students AA made 11.11% increase and FF made 11.76% increase from pre to post test.

Students BB and CC made similar gains of 28.57% and 25.00% increases respectively.

Student EE made the least increase of 5.88%. This could be due to the fact that student EE had already added most of these test words to his personal lexicon. It could also be due to this student's lack of concentration that was anecdotally noted at the time of testing.

Figure 9

RUNNING RECORD Results



It would appear from the results that all students made some improvement in reading levels from pre to post test.

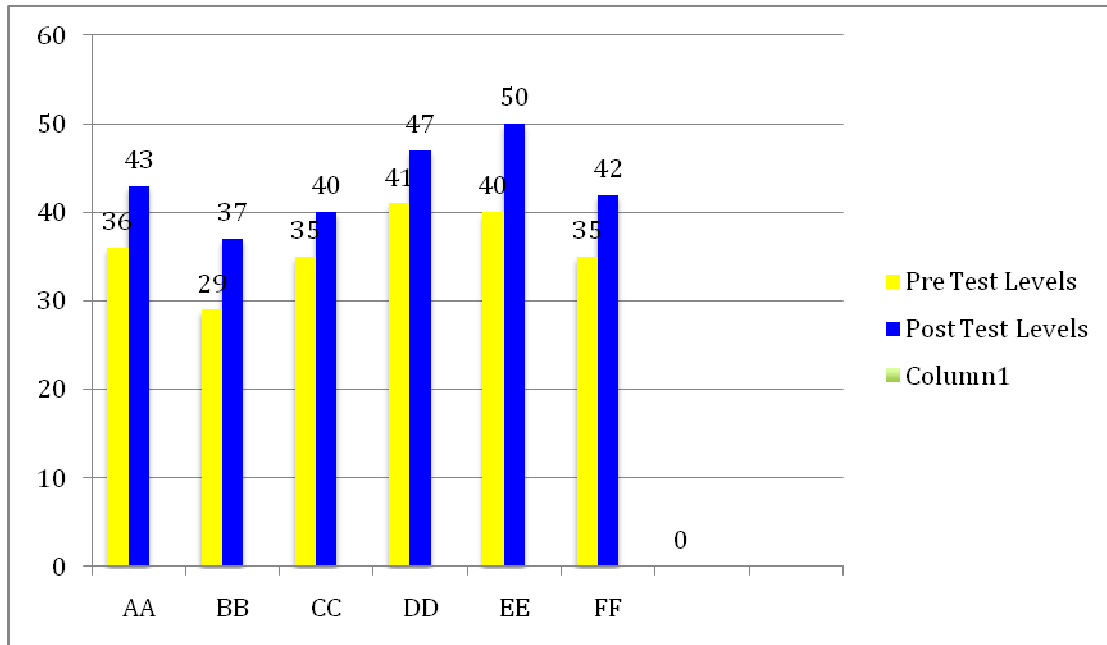
Student BB made the greatest gains with an improvement of five reading levels from pre to post test with a 71.43% increase. This could be due to the student using her skills in segmenting words along with her knowledge of inflections. This could also be due to the student having automatised more words into her personal lexicon.

Student EE made impressive gains with an improvement of seven reading levels from pre to post test with a 58.78% increase. Anecdotal notes also showed that this student showed a more automatised approach to word reading. This could be due to this student having become more fluent in reading with good self-monitoring strategies and a high self-efficacy.

Student AA and FF made minimal increases of 8.33% and 9.09% respectively.

Figure 10

SPAT (Sutherland Phonological Awareness Test) Results
Total Score



The results indicate that all students made gains in their total scores from pre to post test.

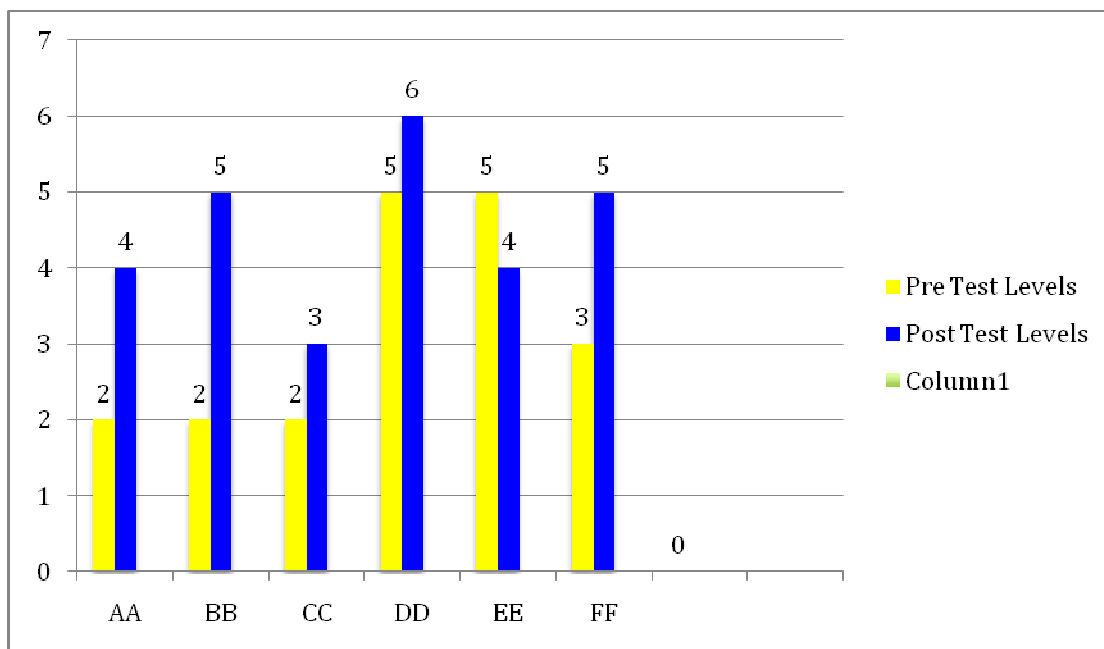
Student EE made the greatest gains with an improved score of 10 points from pre to post test.

This could be due to students utilizing their new skills and knowledge and by being more confident in their own abilities (an improved self efficacy) All the result of having been scaffolded closely by the teacher and having been provided with many opportunities for guided practice.

Figure 11

SPAT (Sutherland Phonological Awareness Test) Results

Non-word Reading Score



The results indicate that most students made gains from pre to post test with the exception of student EE whose results were reduced by one point from pre to post test. An influencing factor may be that this assessment was completed in an afternoon session and student EE had been unwell throughout the week.

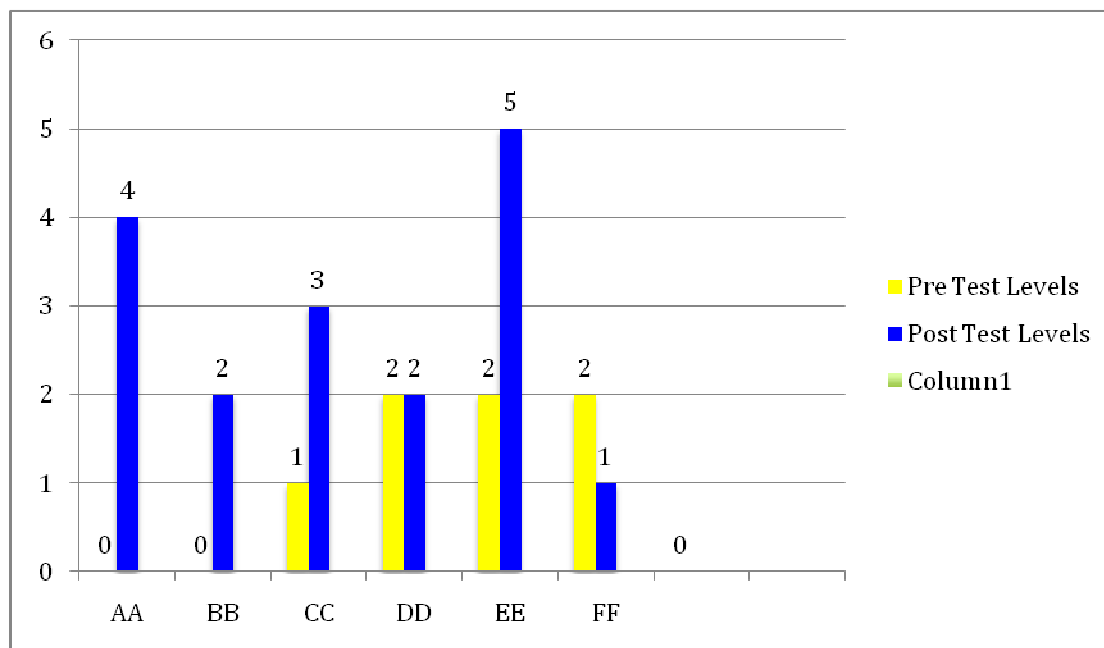
Student BB made noteworthy gains with an improved word reading accuracy of 3 words from pre to post test.

This could be due to students using their ability to implement and apply their newfound learning in a practical way through reading words accurately in isolation using segmenting and blending.

Figure 12

SPAT (Sutherland Phonological Awareness Test) Results

Non-word Spelling Score



The results indicate that most students made gains from pre to post test in the non-word spelling scores. Student AA made the most considerable growth moving from 0 – 4 words. While, Student EE made gains improving the score from 2 to 5 words. This could be due to the students having more confidence in their word spelling skills and that they have applied their knowledge of segmenting and slowly articulating sounds in words.

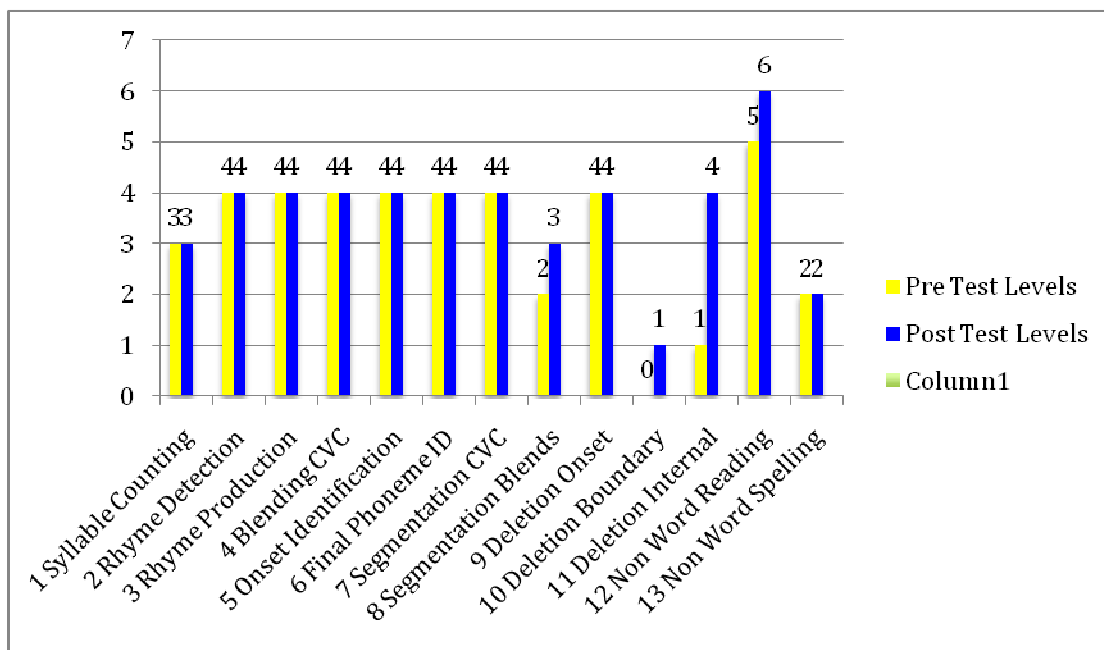
However student FF reduced the number of correct non-word spelling attempts from 2 to 1. This could be due to the timing of the test or the student’s tiredness as a result of a busy school term.

This test alone indicates that the students were able to implement and apply their newfound learning in a practical way through reading words accurately in prose and in isolation.

Figure 13

SPAT (Sutherland Phonological Awareness Test) Results

Student DD Individual Results

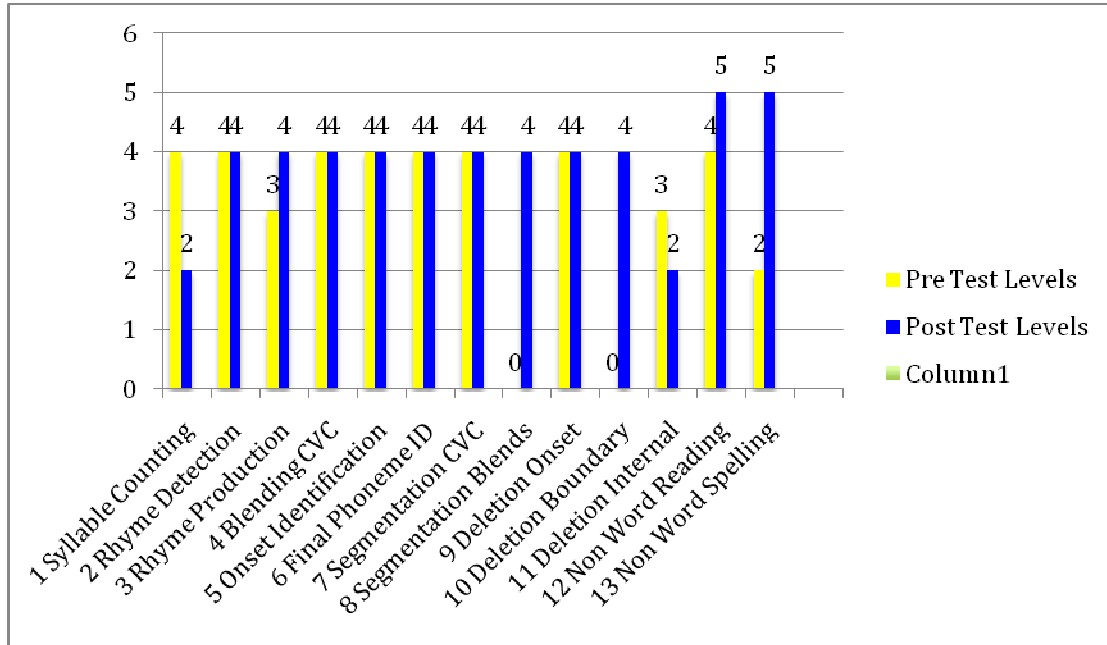


From the graph, student DD made some gains throughout the test. Student DD showed most gains in the areas of segmentation of blends and the internal deletion of sounds.

Anecdotally, the student was noted to have been more confident in non-word reading from pre to post test.

Figure 14

SPAT (Sutherland Phonological Awareness Test) Results
Student EE Individual Results



From the graph, student EE made some gains throughout the test. Student EE showed most gains in the areas of segmentation of blends and the deletion of boundary sounds.

Anecdotally, the student was noted to have been more confident in non-word reading from pre to post test. The student was also noted to have used visualization as a strategy to assist in the solving of the deletion of sounds. The assessor noted that he had his eyes closed during the deletion subtests. When asked why they were closed, student replied “I’m visualizing the word!”

Discussion

This action research project explored the notion that: Explicitly teaching Prep children how to take words apart, by blending and segmenting, including using onset and rime, would improve word reading accuracy in isolation and in prose.

The results of this research project appear to support the hypothesis being tested. The majority of the data indicates that all students improved their word reading accuracy both in isolation and in prose.

The initial plan was to implement an intervention and use a control group to measure growth. However, this action research actually delivered much more! It provided data to support the notion that the MLOTP model (Munro, 2010) can be utilised within a variety of settings. While it has been designed as a model to support small groups or individuals, this study has unexpectedly shown that it offers great benefits when utilised explicitly and incidentally within whole-class setting (as supported by the data highlighted in blue, in Figure 1 - Participants).

The results from the pre – test alone showed a great improvement in the literacy abilities of the intervention students. This would appear to support the hypothesis that word reading accuracy will improve in isolation and in prose when students are taught skills and strategies to take words apart on the run.

This study supports the notion that segmenting and blending words into onset and rime is an effective means of developing student's understandings of how words work and the importance of using a variety of strategies. These strategies include looking for patterns in words to assist the decoding of tricky or unknown words and the use of analogy to solve unknown words. These reading skills at word level, assisted students in improving their word reading accuracy both in prose and in isolation. The research also supports the notion that prep students benefit from being explicitly taught how to segment and blend words using onset and rime. The anecdotal notes also support the importance of making students aware of a variety of strategies that can be utilized to problem solve unknown words when reading words in both in isolation and in prose. Further powerful teaching and learning can occur when teaching is targeted to a small intervention group, where learning is scaffolded and practiced.

The gains the children made in the pre-test compared to the initial tests conducted in June are likely to be attributed to ongoing daily explicit teaching in the classroom setting (taking words apart and using a variety of strategies to solve unknown words). This supports the notion that daily practice utilizing a variety of problem solving strategies during familiar reading time supports reading development (Fountas, I.C and Pinnell, G.S. 1999).

It must be noted that a ten-session intervention program is only a snap shot and may not alter skills drastically in such a short period of time. Having said that, the students in the intervention group were extremely receptive to the explicit teaching of segmenting and blending of words. It must also be noted that these children were also taught both incidentally and explicitly, to use their knowledge analogy and inflections when solving unknown words. They were able to make links between words and they demonstrated this by articulating their knowledge of new words through analogy (Goswami 1988, 1994; Goswami & Mead 1992 as cited in Iverson 1997). Students were able to accurately problem solve words. Student AA stated during the RIME test "I know the word 'jump,' so I know this word will be "stump".

Whilst word reading accuracy is important and a foundational skill, it is also important to remember as Kaye, E.L (2008) comments on Clay, M.M (2005b) that "there is much more to reading and writing than noticing letter clusters. Good readers are able to direct their attention in different ways when reading continuous text."

This was very true for student EE, who moved from an instructional reading level of 12 to 19. This student had moved from word by word reading to reading with fluency. This can be attributed to the student having automatised many new words in his lexicon and also by being able to competently and confidently use a variety of strategies to move through text and problem solve unknown words. Research by Kaye, E.L (2008) supports the notion that "Breaking words is supported by fast visual recognition of letter forms and fast links to sounds."

Anecdotally it was recorded that student EE had a high self -efficacy and developed understanding of each text presented. This student could accurately re-tell the texts presented in his own words at the completion of each text.

A focus on Student DD revealed that this student also made improved progress across all tests and running records taken. It was noted anecdotally that Student DD had not yet automatised many words into her personal lexicon. Student DD's results indicate that she was still at word level on the developmental pathway and that further scaffolding and independent practice would be required to solidify strategies and ensure reading became fluent and meaningful.

It was also anecdotally noted during the taking of running records, that Student DD was focused merely on word-by-word reading. This student was also asked about her perception of what reading is all about. This student was quoted as saying “reading is about reading words!” Clearly student DD needs continued assistance and scaffolding and also needs to gain the correct understanding that whilst reading words is important, reading is a message getting exercise.

Despite the fact that student DD has not automatised her words it has been noted that great gains had been made for this student. Student DD’s own self-efficacy had improved which had a flow on effect to the rest of her literacy learning. Aside from this study that focused on word reading accuracy, it was also noted that student DD made improved gains in her own writing. As the classroom teacher I anecdotally noted that student DD used her segmenting skills to slowly articulate words when writing her own messages during independent writing time. The rise in Student DD’s self-efficacy gave her new confidence in her own abilities to be more of a risk taker during both reading and writing sessions. Her newfound success improved her learning across the curriculum.

The implications of this study indicate that explicit teaching and continued exposure through incidental and scaffolded teachable moments along with opportunities to practice independently segmenting and blending words would further impact on student success in word reading accuracy.

Group results following the ten-session Intervention indicate that all students showed improvement in all the assessed areas from pre to post test. While these results varied from student to student, they all support the value of the intervention. The whole –class teaching strategy (which occurred incidentally), combined with the ten-session Literacy Intervention was an enormous success. It seems that a combined approach – explicit teaching alongside supported application had a great impact.

Future Directions:

In hindsight, I would like to alter a couple of things. If I was to replicate this study, I would reconsider my assessment tools. In general the tests used were extremely useful in assisting to gather student data. However, the Ohio Word test would be a test to reconsider if the research was applied again. Despite the fact that all students made gains in this test, it provided less information than the other tests. The Ohio Word test was originally chosen, as it was a similar test to the Word Test by Clay, M.M (2005). I chose to avoid it for this study as I was concerned about over-exposure to the test.

I would also like to run the intervention program over an extended period of time and consider growth in written skills as well. While I observed this anecdotally within the classroom, I did not formally assess student progress in this area.

The Hearing and Recording Sounds assessment and the 10 minutes Writing Time (from the Observation Survey) would have both offered insights into student progress and student application of learning. This would have helped me to make further analysis of the impact of the intervention and its applications within the classroom

Overall, I am very pleased with the study and have been able to use the results as a basis for discussion to reflect on the teaching practices of the Prep team.

My enthusiasm for literacy teaching has been reignited by this study. I plan to utilize the new knowledge that I have gained as a result of this study in my everyday teaching. Planning has already commenced! In light of this study, I would explicitly teach and support the development of a variety of strategies to assist students to solve unknown words. This would be supported by specific interventions to target areas of need. I will also certainly revise my use of assessment tools – and I have even booked our local CEO Special Education Adviser to conduct a PLT on the SPAT for our junior literacy team.

These are all positive steps for the future learning of my Prep students and the students within our junior school. While we (as a school) have been using a variety of assessment tools in the past - we now place renewed value of the use of diagnostic tools to direct our future teaching thanks to this study.

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Appendices

Appendix 1 - Lesson Block Plans

	Book Box Time 15 minute session involving incidental teachable moments.	Literacy Time Whole Class – small group pull out group involving intervention group. 15 minutes - whole class, 15 minutes Small group.
Literacy Block 1	While reading familiar books students are reminded to use the following strategy - (Key to unlocking tricky words) to assist them to solve unknown words – Look at the first sound then cross check with the picture for meaning. Students read to teacher, teacher explicitly shows students how to use strategy, then roams room and randomly shows examples.	Orally practice syllable counting. Clap and move to syllables (p70, A Sound Way) Children clap and feel under their chin near throat names of self and classmates. Find one syllable words around room, move to 2, 3, 4 etc. syllable words-Whose name in the room has the most syllables? Graph names and display Make the word “at” for the students. “At is a one syllable word that we all know. “ Find it around the room. Use magnetic letters to make words with “at” changing the onset. Children practice making words and read them to teacher in small group session.
Literacy Block 2	While reading familiar books students are reminded to use the following strategy - (Key to unlocking tricky words) to assist them to solve unknown words – Look at the first sound then cross check with the picture. Teacher revisits strategy and selects examples to demonstrate for students.	In this lesson students focus on simple 2 letter words. Teacher models the word “go”. Students make the word ‘go’ using magnetic letters on whiteboard. Students scan left to right and use finger to assist reading words. Deliberately demonstrate how to take away letter ‘g’ and substitute ‘n’ in its place. What word have we made now? Without teacher assistance, a student is asked to change word back to ‘go.’ Practice independently and in pairs. Make so, go, no. Students run their finger to scan left to right and read word to self and to partner.
Literacy Block 3	While reading familiar books	In this lesson students focus on simple 3 letter words. Make the word Dad.

	<p>students are reminded to use the following strategy - (Key to unlocking tricky words) to assist them to solve unknown words – Look at the first sound then cross check with the picture.</p>	<p>Change the onset to make bad, mad, sad,. Construct a list by changing the onset. Students make the word using magnetic letters on whiteboard. Students scan left to right and use finger to assist reading words. Using onset and rime cards made by teacher. Students practice making “ap’ and ‘et’ words. Students read words to teacher and group. Play game Add a tail from (A Sound Way)</p>
<p>Literacy Block 4</p>	<p>While reading familiar books students are reminded to use the following strategy - (Key to unlocking tricky words) to assist them to solve unknown words – Look at the first sound then cross check with the picture for meaning.</p>	<p>Teacher shows students pictures from magazines of cat, Remind students of word at from previous. How can I make the word ‘cat’ Use magnetic letters to make word ‘cat’ Change the onset and keep the rime ‘at’ Have children practice making these words with magnetic letters. Say to the child. I can break this word in to two parts. Teacher demonstrates moving the onset and then the rime. Have the children practice e this movement themselves. Move to the word ‘that’ Teacher says “Here is a new word you might find in your books Look at the start. What word do you know that starts like this . eg, ‘the’ Make the sound ‘th’ Break the word into onset and rime. ‘th-at’ Find it around the room Teacher slowly articulates words so students can hear them in a natural way. Students practice slowly articulating words by themselves.. See page 73 Lit Lesson part 2 Clay. Students watch lips and listen to the sounds, watch lips in mirror to notice what lips and tongue are doing. Use examples from “A Sound Way called “Choose and Change” p 187</p>
<p>Literacy Block 5</p>	<p>While reading familiar books students are reminded to use the following strategy (Key to unlocking</p>	<p>In this lesson, we move from changing the onset to changing the rime. Start with a word we know. Look at the word ‘she’ .Discuss the letter cluster ‘sh’ Brainstorm words that start with sh. Construct a list , eg ship shop shut. Encourage students to</p>

	<p>tricky words) to assist them to solve unknown words – Looking for small parts of the word that are known – small words, letter clusters.</p>	<p>break words into two parts. Students may know small word ‘out.’ Lets make the word ‘shout.’ Students practice making and reading words using flashcards made from 37 Dependable Rimes</p>
<p>Literacy Block 6</p>	<p>While reading familiar books students are reminded to use the following strategy (Key to unlocking tricky words) to assist them to solve unknown words – Looking for small parts of the word that are known – small words, letter clusters.</p>	<p>This lesson focuses on inflections and rime units Take the word ‘jump’ from shared reading example. Using magnetic letters make the word ‘jump.’ Ask the children what happens when the letter “s” is added to the end. Continue to change words by adding, ed, ing , er , etc. Practice making these words with magnet letters and then write them in two colours Practice reading words with changing onset and rim by using Smart Kids Flip books. Practice reading independently and with partner from small intervention group.</p>
<p>Literacy Block 7</p>	<p>While reading familiar books students are reminded to use the following strategy (Key to unlocking tricky words) to assist them to solve unknown words – Run your finger under the length of the unknown word. Saying the sounds slowly.</p>	<p>Revise previous lesson. Students practice what they have learned in the previous lesson changing words using inflections and onsets, and rimes. Using the example of the word ‘go’, students are asked to change word independently and make as many new words as they can. Play games Flight Path and Head ons from(A Sound Way)</p>
<p>Literacy Block 8</p>	<p>While reading familiar books students are reminded to use the following strategy (Key to unlocking tricky words) to assist them to solve unknown words – Run your finger</p>	<p>Using Big book, cover rime and expose onset. Read the sentence and ask children to predict what the unknown word might be, Eg, ‘ship’ Ask the students what might make sense and start that way if the word was to be ship. What would you expect to see? Reveal and continue to read in this way using various covered examples.</p>

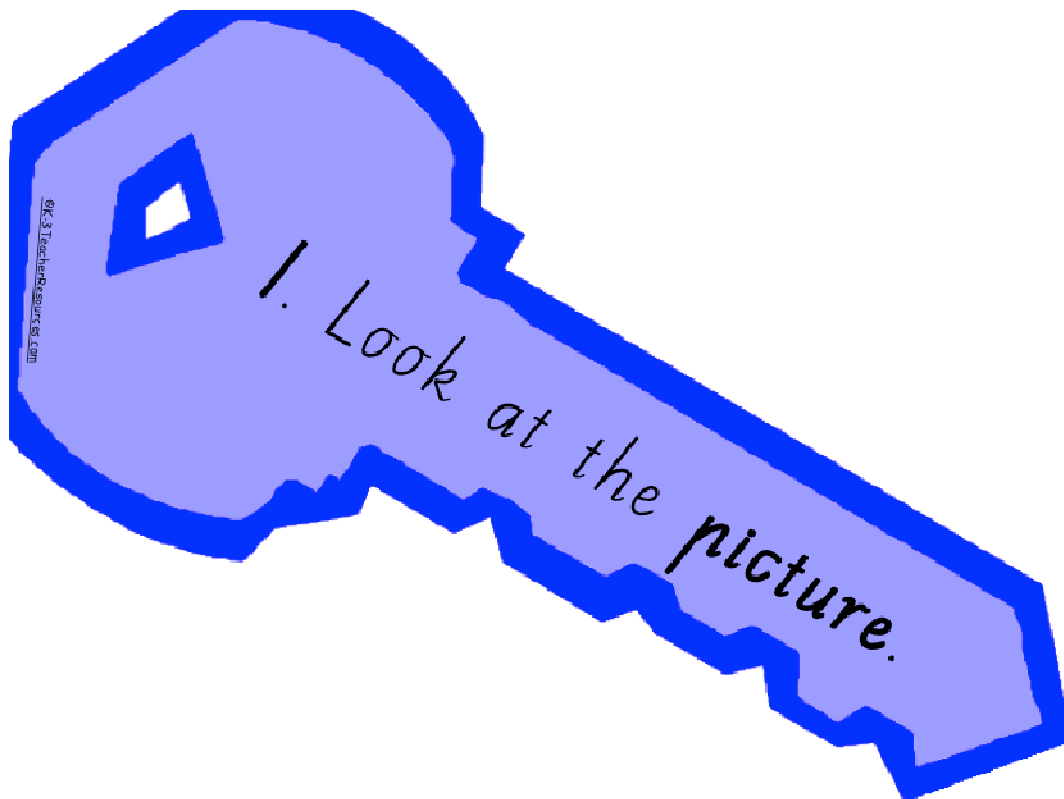
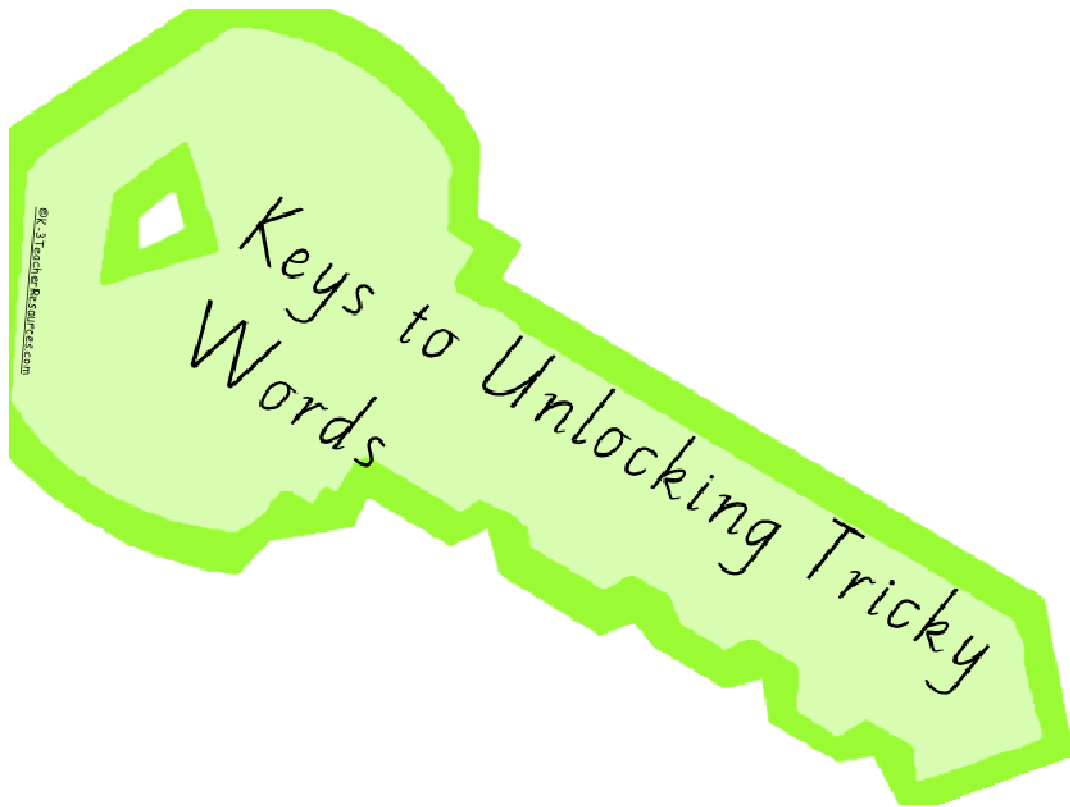
	under the length of the unknown word. Saying the sounds slowly.	Consolidate lesson as a group students play “Chunks game.’
Literacy Block 9	While reading familiar books students are reminded to use the following strategy (Key to unlocking tricky words) to assist them to solve unknown words – Re read sentence at the point of reaching an unknown word. Use previous strategies to assist.	Using big book , choose multi syllabic words to break. Create model using magnetic letters on whiteboard and ask children where children would break words in the most efficient way. Scaffold. We break words in this way when reading books. Model incidentally using our thumb to chunk words and show breaks. Teacher explicitly explains and models most effective ways to break words on whiteboard. Children participate in breaking words written by teacher on the whiteboard.
Literacy Block 10	While reading familiar books students are reminded to use the following strategy(Key to unlocking tricky words) to assist them to solve unknown words – Use strategies of choice to assist in solving unknown words.	During Guided reading Teacher states that our focus will be chunking words while thinking about what might make sense. Some children might run their thumb / finger or a strip of card useful support to aid them in their chunking of unknown words. Children play games of choice to complete session – Chunks, Flight Path, Blend Bingo.

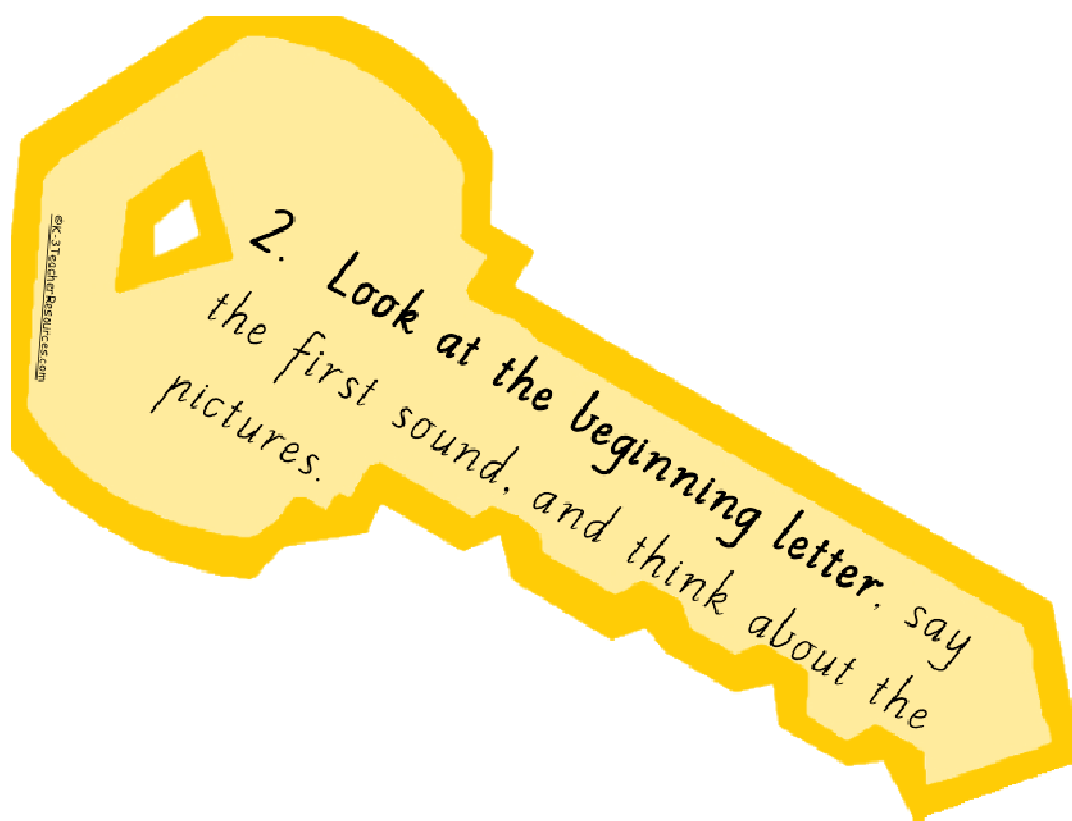
Appendix 2 – Participants

Student	Age in months	Letter ID (Feb)	Word Test (Feb)	Reading Level (Feb)	Reading Level (June)	Pre Test Text Level	Pre Test SPAT (Sept)	Pre Test Ohio Word	Pre Test Rime (Sept)
Intervention									
AA	80	51/54	1	0	3	12	36	18/20	3 letter - 21/24 4 letter – 54/74 5 letter – 26/51
BB	73	52/54	1	0	1	7	29	14/20	3 letter – 17/24 4 letter – 26/74 5 letter – 10/51
CC	80	49/54	1	0	1	9	40	16/20	3 letter - 20/24 4 letter – 41/74 5 letter – 21/51
DD	80	2/54	0	0	0	8	41	8/20	3 letter - 18/24 4 letter – 42/74 5 letter – 22/51
EE	81	37/54	0	1	3	12	40	17/20	3 letter - 21/24 4 letter – 42/74 5 letter – 19/51
FF	74	/54	0	0	1	11	35	17/20	3 letter - 19/24 4 letter – 44/74 5 letter – 29/51
Student	Age in months	Letter ID	Word Test	Reading Level	Reading Level	Pre Test	Pre Test	Pre Test	Pre Test Rime

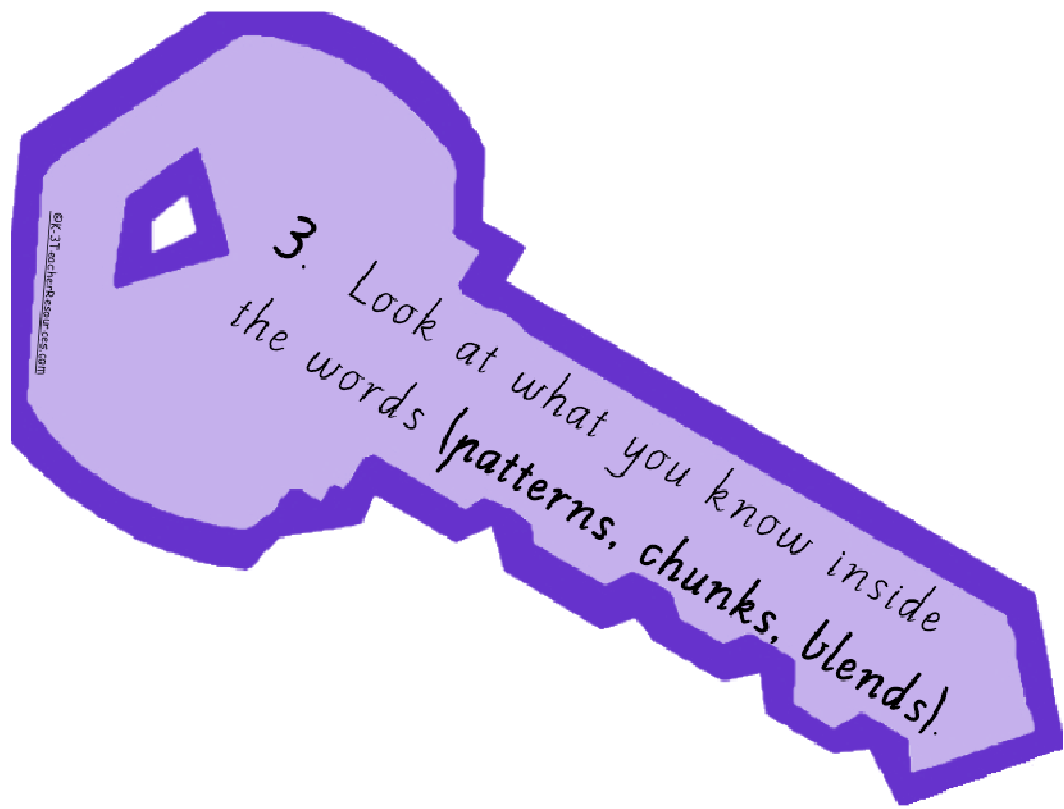
		(Feb)	(Feb)	(Feb)	(June)	Text Level	SPAT (Sept)	Ohio Word	(Sept)
Control									
A1	77	15/54	0	0	1	3	26	3/20	3 letter - 6/24 4 letter - 2/74 5 letter - 0/51
B2	74	9/54	1	0	1	3	26	4/20	3 letter - 2/24 4 letter - 0/74 5 letter - 0/51
C3	80	13/54	0	0	1	3	29	7/20	3 letter - 8/24 4 letter - 0/74 5 letter - 0/51
D4	70	25/54	1	0	0	7	29	16/20	3 letter - 20/24 4 letter - 36/74 5 letter - 13/51
E5	80	11/54	0	0	0	2	17	5/20	3 letter - 2/24 4 letter - 0/74 5 letter - 0/51
F6	77	47/54	1	0	2	10	38	17/20	3 letter - 22/24 4 letter - 48/74 5 letter - 20/51

Appendix 3 – Keys to Unlocking Tricky Words

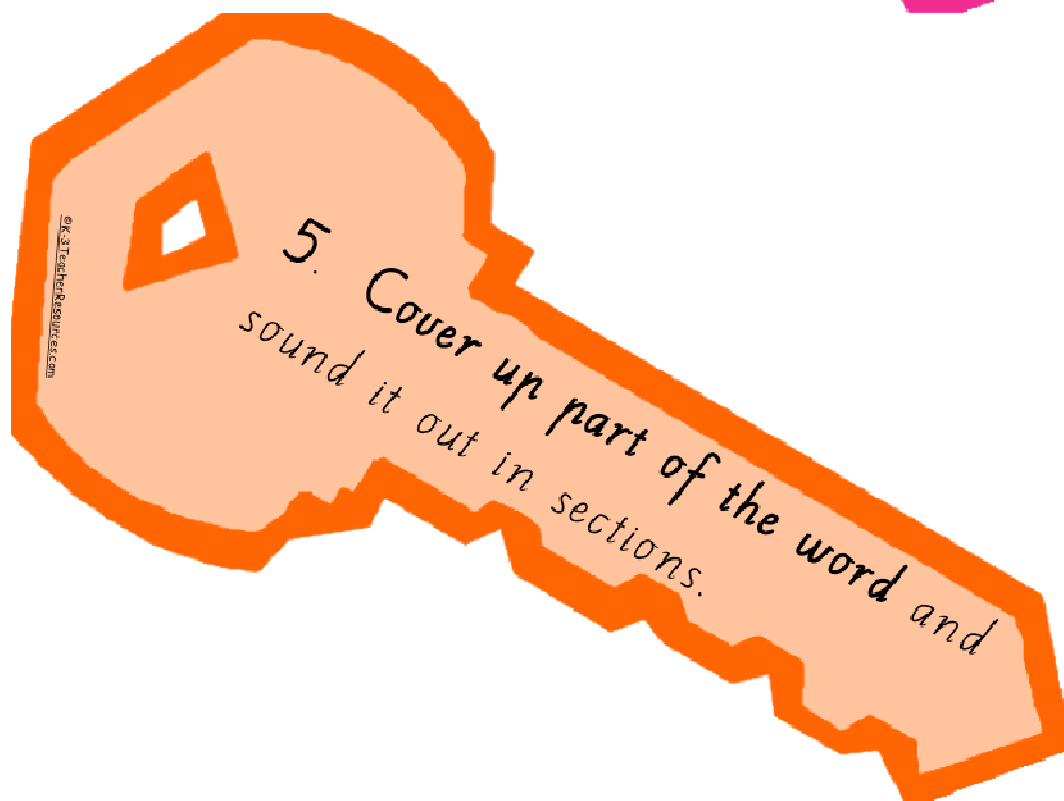


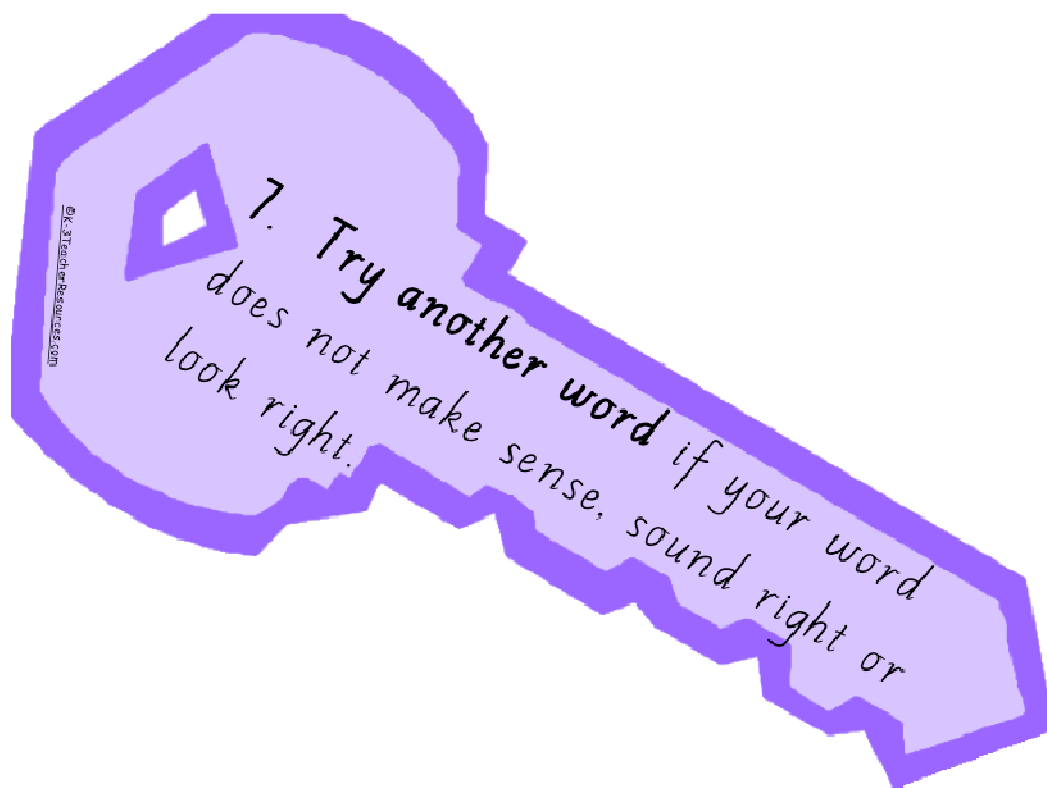


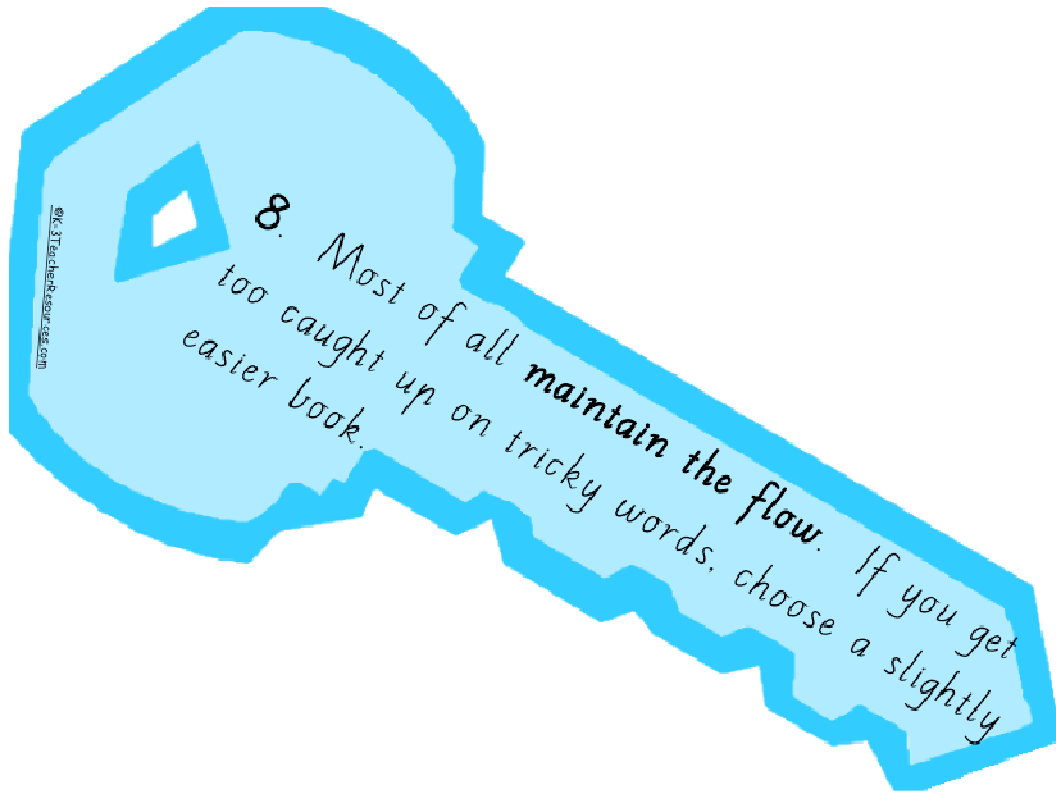
2. Look at the beginning letter, say the first sound, and think about the pictures.



3. Look at what you know inside the words (patterns, chunks, blends).







8. Most of all **maintain the flow**. If you get too caught up on tricky words, choose a slightly easier book.

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Appendix 4 – OHIO WORD TEST (as cited in Clay, M.M (2005).

OHIO WORD TEST — ADMINISTRATION SHEET

LIST A Practice Word	LIST B Practice Word	LIST C Practice Word
can	in	see
and	ran	big
the	it	to
pretty	said	ride
has	her	him
down	find	for
where	we	you
after	they	this
let	live	may
here	away	in
am	are	at
there	no	with
over	put	some
little	look	make
did	do	eat
what	who	an
them	then	walk
one	play	red
like	again	now
could	give	from
yes	saw	have