Teaching Upper Primary Children to Read Multisyllabic Words will Improve their Comprehension

Abstract

It is a widely accepted view that teaching children to read words quickly and accurately can also increase their comprehension. In addition it is also understood that the reader who has become efficient enough in decoding, can now focus all their energies into reading for meaning. Unfortunatley there are always some children, who by the time they get to Grade 5/6, are still not fluent readers. The reason is often that they do not have the knowledge or sometimes confidence, to decode the long, unfamiliar multisyllabic words; they see unfamiliar words and 'panic'. The reader often uses distinctive visual features to guess at the word, often omits, substitutes or deletes sounds in the word, or skips reading the word altogether - all causing problems for comprehension.

This research looks at the effects of teaching older primary students to identify the syllable boundaries of multisyllabic words and apply stress patterns. The children were also given continual practise in identifying onsets and rimes, recognising short and long vowels, constanants and suffixes and prefixes. Only a small set of rules were taught.

All students showed a marked improvement in their word reading, reading prose as well as comprehension.

Introduction

Having the ability to read accurately is a gateway for accessing reading comprehension. The National Research Council (1998, as cited in Galletly and Knight, 2004) suggest that if reading accuracy is mastered by the middle of primary school, the reader is now more able to focus on reading comprehension.

The reasons why some students fail to attain effective reading accuracy and fluency by the time they leave primary school has been debated over decades and will continue to be the subject of much discussion, research and media coverage. Numerous theories and opinions have been offered. Notwithstanding , there is significant agreement among many that if of the alphabetic principle is not understood, the reader will struggle to establish independence and decipher unfamiliar words. Share (1995 as cited in Hempenstall) see the phonological recoding strategy as instrumental in the development of skilled reading describing it as"a self-teaching mechanism, enabling the learner to acquire the detailed orthographic representations necessary for rapid, autonomous, visual word recognition" (p152)

Chill, (1983) and Mason (1992), (as cited in Hempenstall) state that reading difficulties occur when the reader relies on his/her compensatory strategies such as whole word recognition or contextual clues because they have insufficient decoding skills. Or similarly, they employ the "guess and check" strategy each time they encounter a novel word. Inevitably by middle – late primary school these will be insufficient to cope with the increased demands on comprehensions and the ability to recognise the 10,000+ words that is believed are encountered each year.

Furthermore, Spear-Swerling (1994) along with Stanovich (1986) suggest that another likely cause of reading difficulties in upper primary is directly related to the student's inability to decode long, multisyllabic words. In addition, Johnson and Baumann, (1984), Mewhort and Beal, (1977) (as cited in Bhattacharya and Ehri, 2004) see that having the inability to syllabify is an obstacle toward successful and fluent reading. This ability to syllabify, especially multisyllabic words is a challenging strategy for many students, especially considering the often complexities of the English language.

English has a strong phonemic, orthographic and morphemic base. Gallentley and Knight (2004) believe that while orthographic and morphemic knowledge are useful for moderate readers, it can also create phonemic confusion for beginning readers. It is a commonly shared view that without strong knowledge in these areas, reading difficulties can occur and the reader's ability to decode, manipulate and blend sounds and/or syllables becomes a painstaking task, which in turn effects fluency and consequently comprehension. Stanovich (1996 as cited in Munro) also suggest that learning to read improves sound awareness and retrospectively sound awareness also helps improve reading. Others like Munro (1993 pg27) also claims that phonemic ability can be a forecaster for spelling and reading achievement in both areas of word recognition and comprehension.

It has been well documented that in the early primary years, students are generally well versed in gaining the knowledge to enable them to read one syllable words. Strategies such as segmenting, blending, use of analogy and orthographic structure are explicitly taught. But the teaching of multisyllabic words differs to this . Duncan and Seymour (2004) set about to discover some preliminary findings into the ways children learn multisyllabic words. They reported that the difficulties of prosody, which relates to the stress patterns of multisyllabic words and syllable boundaries, which are often not easily defined in the English language, are the main barriers to successful acquirement of decoding multisyllabic words. This particular finding emanates the importance of explicit instruction of multisyllabic words.

Whilst much research does exist on the benefits of teaching monosyllabic words, little has been undertaken, and opinions vary in regard to the effectiveness of undertaking multi and polysyllabic instruction especially with upper primary students. One such study by Cunningham et al. (1981 as cited in Bhattacharya) had students undertake explicit instruction on syllable rules. This type of program failed to improve any aspect of reading, either word recognition or comprehension. Notwithstanding, Shelfelbine (1990 as cited in Bhattacharya, 2004) concentrated on teaching Grade 4 and 6 children syllable exemplars. The students were instructed on how to read affixes, look for open and closed syllables and then practise alternative pronunciations. This research did yield some improvement for the readers. Furthermore in their study, Bhattacharya et al. focused on teaching adolescent students to analysis and match their syllabic constituents to pronunciations. Only one syllable rule was taught being that every syllable contains a vowel sound. This type of instruction was found to improve the decoding of low frequency words, improve the students bank of sight words as well improve spelling of these multisyllabic words in 11 to 15 year old students.

In 90% of cases, comprehension difficulties can be directly related to a reader's ability to 'get the words off the page' rapidly and effortlessly.(Oakhill and Garnham, as cited in Hempenstall (1999). There is a huge body of evidence that supports the theory that a strong relationship exists between reading fluency and good comprehension (NCES 1995). The National Council suggest that when a reader is asked to pay attention to aspects of fluency such as phrasing, syntax and expressiveness they will give more attention to the meaning of the text as well.

Fluency, it is suggested by Pikulski and Chard (2005) builds from a foundation of oral language, phonemic awareness, familiarity with letter forms and efficient decoding skills. Pikulski and Chard further state that there is a clear correlation between the amount of reading, their reading fluency and reading comprehension. They state, "As part of a developmental process of building decoding skills, fluency can form a bridge to reading comprehension." (NICHD, 2000)

Research also indicates that as cognitive capacity is limited, the reader can only focus so much to any task. Hence when a reader is not preoccupied with the task of decoding they are more able to focus on the comprehension aspect. In fact Rasinski (2000 as cited in Hammer and Kimberley) states "Research dating back 60 years suggests that faster readers tend to have better comprehension over what is read and tend to be overall, more proficient readers"

Being able to decode difficult and long words quickly and fluently enables readers simply to comprehend better.

The Present study

Aims to develop further understandings about what influence teaching children to decode multisyllabic words quickly will have on their ability to better understand what they read. In particular this investigation will focus on the effects of teaching the children syllable boundaries, that each syllable contains a vowel sound and stress patterns of two and more syllable words. The students will also undertake some phonological, phonemic and orthographic training briefly as a part of each lesson.

Prediction

Teaching Grade 5 and 6 students who have difficulties reading and pronouncing multisyllabic words, to syllabify them, will improve comprehension.

Method

Design

This study will employ an OXO design in which the explicit instruction of syllable boundaries and stress patterns, along with continual reinforcement of phonological, phonemic and orthographic skills will be monitored in a group of year 5 and 6 students to ascertain if improvements are made in their comprehension. Only a small amount of syllable rules will be taught (see appendix 4). No particular comprehension strategies will be taught during these sessions. This should provide a clearer result as to if teaching the reading of multisyllabic words does infact improves comprehension.

Participants

The students undertaking this intervention are 5 students from Grades 5 and 6. One female and 4 males. Each of these students were selected after pre-testing confirmed difficulty in decoding multisyllabic words as well as some weaknesses in phonemic awareness. All students did express concerns for their own lack of ability to "read big words" and were eager for some help. A summary table describing the entry-level data for participants is shown in Table 1.

	Student A	Student B	Student C	Student D	Student E
Age	11 years 4 months	11 years 8 months	9 years 11 months	10 years 2 months	10 years 4 months
Grade Level	6	6	5	5	5
Mother Tongue	English	English	English	Chinese	English
Prior Intervention	Reading Recovery	Reading Recovery Spelling Mastery Small group reading intervention Sound Therapy	Reading recovery Grade 3 and 4 -Small group intervention to improve reading skills Grade 4 – Undertook Sound Therapy	Reading recovery Grade 3 and 4 -Small group intervention to improve reading skills Grade 4 – Undertook Sound Therapy	Undertook Spelling Mastery program in Grade 1 and 2 Has participated in 4 years of Kumon. Amy's father is dyslexic and never learnt to read or write
Present Intervention	Small group Intervention with Special Ed teacher focusing on Comprehension skill (visualising and paraphrasing undertaken so far)	Small group Intervention with Special Ed teacher focusing on Comprehension skill (visualising and paraphrasing undertaken so far)	Small group Intervention with Special Ed teacher focusing on Comprehension skill (visualising and paraphrasing undertaken so far)	Small group Intervention with Special Ed teacher focusing on Comprehension skill (visualising and paraphrasing undertaken so far)	Amy continues her work at Kumon. Small group Intervention with Special Ed teacher focusing on Comprehension skill (visualising and paraphrasing undertaken so far)
Sensory Impairment	Non	Non	Non	Non	Non
Brief description of reading difficulty	Confuses short vowel and long vowel sounds Not confident in identify letter clusters Difficulty segmenting	Juxtaposes, omits and substitutes sounds and syllables Uses distinctive visual features to guess at	Juxtaposes, omits and substitutes sounds and syllables Stumbles over long, multisyllablic words	Difficulty segmenting and blending Poor punctuation Uses distinctive visual features to guess at a	Not confident in identify letter clusters Difficulty segmenting and blending Juxtaposes, omits and

and blending	words – generally	Uses distinctive visual	word.	substitutes sounds and
Juxtaposes, omits and	relies on only the first	features to guess at	Substitutes words that	syllables
substitutes sounds and	letter/sound before	words – generally	don't fit	Uses distinctive visual
syllables	guessing an unfamiliar	relies on the first two	Difficulty transferring	features to guess
Uses distinctive visual	word	letters/sounds before	previous knowledge	words
features to guess	Difficulty transferring	guessing an unfamiliar	Doesn't self correct	Substitutes words that
words	his previous	word	Poor fluency	don't fit the meaning
Poor punctuation	knowledge	Lack of fluency	Poor comprehension	Misponounciates
Doesn't self correct	Poor fluency -	Poor comprehension		words
Lack of fluency –	Stumbles of long,			Stumbles of long,
Stumbles of long,	multisyllablic words			multisyllablic words
multisyllablic words	Poor comprehension			Poor comprehension
Poor comprehension				

Materials

Assessment Task - Pre and Post Testing

- Neal Analysis of Reading Ability to assess reading age and reading comprehension age (Orally)
- Torch Test of Reading Comprehension to assess reading comprehension (Written cloze activity)
- South Australian Spelling Test to assess if the teaching of reading multisyllabic words also improves spelling
- Words Reading Task x 2 adapted from Duncan and Seymour (2003)

List 1 - Word reading of bisyllabic and trisyllabic, 1st and 2nd syllable stressed, Orthographically simple,

orthographically complex words (see appendix 1)

List 2 - Word reading of Multisyllabic non-words – orthographically simple and complex, 1st and 2nd syllable stressed (see appendix 2)

Teaching Materials

Flashcards - displaying dependable rimes, suffixes and prefixes
Strip cards - displaying multisyllabic words
Lists of multisyllabic words - Obtained from Intensive Reading Program
Prose - Newspaper articles,

Procedure

The children were withdrawn from their classrooms during their normal reading block. Two sessions per week were undertaken. Each sessions was conducted for approximately 40-45 minutes.

The teaching sessions were influenced by Munro's Phonemic-Orthographic Literacy Program (1999) as well as notes from The Literacy Intervention Strategies by Munro.

Each session consisted of a review of phonological knowledge (according to needs as outlined in Participants) Followed by instruction in the phonemic and orthographic structure of multisyllabic words and then reading multisyllabic words in text.

Children then talked about what they had learned during the session.

The Teaching Sequence

(See appendix 3 for detailed Teaching Sequence)

The Teaching Sequence	
Lessons 1-10	1. Phonological/Phonemic Awareness
	2. Teaching Multisyllablic Words
	3. Prose Reading - multisyllabic words
	in context
	4.Reflection

Results

	Stud	Student A		ident B Student C Student D Student E		Student C Student D Stu				
	Pre-Test	Post- Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
	30/3/06	17/5/06	30/3/06	17/5/06	28/3/06	17/5/06	29/3/06	17/5/06	29/3/06	17/5/05
Age	11.3yrs	11.5yrs	11.8yrs	11.10yrs	9.11yrs	10.1yrs	10.2yrs	10.4yrs	10.4yrs	10.6yrs
Accuracy Reading Age Percentile	9.4yrs 20%	11.7yrs	8.5yrs	9.9yrs 21%	7.11yrs	8.2yrs	9.1yrs	9.5yrs	8.6yrs	9.5yrs
Comprehension Reading Age Percentile	<6.0yrs 1%	8.5yrs 6%	6.10yrs 1%	8.10yrs 7%	7.4yrs 4%	8.11yrs 21%	8.9yrs 15%	9.8yrs 26%	9.2yrs 19%	9.5yrs 25%

Neale Analysis of Reading Ability

The Neale Analysis was administered to all five participants to ascertain both reading accuracy and reading comprehension before intervention was undertaken. In all cases the students were reading and comprehending well below expectations. On average the students were 1.5 years behind in reading accuracy and 3.1 years behind in comprehension. Though it must be noted here that when the student undertakes the comprehension section of The Neale Analysis, the text must be removed from sight. This therefore makes the exercise a measure of short-term memory rather than reading comprehension. I do not feel this is a true measure of the student's reading comprehension.

Student A had the second lowest score for his age for reading accuracy and the lowest for comprehension. This student had particular problems recalling details without having the text available. His response to 70% of questions asked was "I can't remember"

Notwithstanding, the post-test results show some remarkable gains. As a group, an average 1-year gain was made with Student A making up 2.3yrs and student B a 1.4 year gain and Student D increasing his word accuracy by 11 mths in a 6.5-week period. In reading comprehension an average gain of 1.3 years was obtained with again Student A having the largest gain of 2.5years+. Overall the group is now .8 of a year behind what is expected in Reading accuracy and 2.2 years behind in Reading Comprehension.

Some factors that may have influenced the exceptional results may be in pre-testing it was noted that all participants over used the guess and check strategy, Distinctive Visual Features and were quick to give up on unfamiliar words. In the post-testing the students knew that all the above behaviours would not be accepted and knew they had some skills to work out the word. They were much more confident in their reading. In pre-testing it was evident that some of the basic phonological and phonemic awareness was challenging for these students. As 5 minutes of each session was used to reinforce some of these basic skills, this also proved to be a worthwhile and valuable activity. Having the students able to break the word into smaller parts, made reading long words more manageable for each student. Constantly making the students aware that they were guessing or inserting or omitting sounds was also a successful strategy undertaken. In post testing, it was noted by the assessor each student was attempting to break unfamiliar words into syllables, but in some cases the syllable boundaries or the stress patterns were incorrect. With the readers having a better relationship with the assessor and understanding the format of

each test also were contributing factors.

Clearly the above results support the hypothesis that teaching children to read multisyllabic words improves comprehension.

TORCH - Test of Reading Comprehension

	Student A		Student B		Student C		Student D		Student E	
	Pre-Test	Post-Test	Pre-Test	Post-test	Pre-Test	Post-Test	Pre-Tes	t Post-Test	Pre-Test	Post-Test
Percentile	13%	66%	22%	56%	33%	37%	35%	37%	24%	25%
Stanine	3	6	3	5	4	4	4	4	4	4

Pre-Testing conducted 1st March

Post Testing conducted 17th May

Test of Reading Comprehension (TORCH) also proved that better word recognition improves comprehension. The group results showed an improvement with all participants. A large improvement was noted for Student A and B who are both Grade 6 Students and only a marginal improvement for the Grade 5 students. This was a similar pattern to the results of the Neile Analysis. Although this is a better tool for assessing comprehension than the Neile Analysis, it is evident that although teaching syllables can help improve comprehension in some cases, there are many other explicit comprehension strategies that need to be taught in order for the all participants to make better gains.

	Student A		Stude	ent B	Student C		Student D		Student E	
Age	11.2yrs	11.5yrs	11.7yrs	11.10yrs	9.10yrs	10.1yrs	10.1yrs	10.4yrs	10.3yrs	10.6yrs
	Post-Test	Pre-Test	Post-Test	Pre-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post Test
Raw Score	39	40	37	38	35	37	36	36	36	36
Age Equivalent	10.5yrs	10.7yrs	10.0yrs	10.2yrs	9.5yrs	10.0yrs	9.7yrs	9.7yrs	9.7yrs	9.7yrs

South Australian Spelling Test

This assessment was undertaken to ascertain if there were any flow on effects from teaching syllables. As the results reveal there was no real improvement over the 3 month period between post and pre assessments. Clearly it will be necessary to teach some explicit spelling strategies in order to improve spelling.

	Stud	Student A		dent B	Stuc	lent C	Student D		Student E	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
1 st syllable Stressed	85%	85%	60%	60%	46%	75%	82%	85%	46%	75%
2 nd Syllable Stressed	78%	89%	42%	50%	35%	68%	64%	79%	32%	64%
Orthographically Simple	89%	92%	60%	64%	50%	75%	50%	85%	50%	75%
Orthographically Complex	75%	82%	46%	46%	32%	68%	57%	79%	25%	57%

Word Reading Test of Multisyllabic Words

1										
Multifaceted	28%	28%	0%	14%	0%	14%	28%	57%	0%	42%
Multisyllablic Words										
Total	74%	83%	49%	51%	36%	63%	69%	76%	38%	63%

In the pre-testing there was no significant difference between the different areas assessed with all participants finding words that have the 2^{nd} syllable stressed slightly more challenging than the 1^{st} syllable stressed. All students found the orthographically simple words easier than the orthographically complex words, though surprisingly there was only a small

variation. The challenges to all students were the words in the multifaceted column. These words all contained 4 syllables and some had unusual letter combinations - *oeu* in *manoeuvres*. The letter c also added confusion in the word *vicinity* for all, as each students incorrectly pronounced it. This was also the pattern during the intervention sessions, where all student were unsure how to handle 'c' when it made an 's' or a 'c' (cease) sound. Finding the correct syllable boundaries was also challenging during both pre and post testing, especially in words never seen or heard before. The students looked at beneficial and all said *be-ne-fi-cal*.

All participants made good overall gains following the intervention. Student C and D had the biggest gains in post-testing, they were also the lowest students in pre-testing. A similar pattern to the pre-testing was again evident in the post testing with little significant difference between 1^{st} and 2^{nd} stressed words and orthographically simple and complex.

	Student A	Student A		5	Student C	C	Student D)	Student E	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
1 st Syllable Stressed	75%	83%	50%	50%	50%	50%	66%	91%	25%	50%
2 nd Syllable Stressed	83%	75%	41%	41%	25%	41%	33%	91%	25%	58%
Orthographically Simple	83%	83%	33%	41%	50%	58%	75%	100%	16%	83%
Orthographically Complex	75%	75%	58%	58%	33%	33%	25%	83%	8%	25%
Total	79%	79%	45%	50%	41%	46%	50%	92%	25%	54%

Word Reading Test of Multisyllabic Non-Words

This assessment of non-word reading was used to establish if any phoneme-grapheme difficulties exist. Interestingly, student A who has made largest gains in all other assessments, did not make any improvements in this area. As his 79% was already a high score, it indicates that his reading and comprehension difficulties don't derive from a poor knowledge of the orthographic structure of the English language. All other students made good gains with Student D making the largest. This does suggest that the combination of phonological and syllable training was beneficial for all these students.

When comparing the results of the Multisyllabic words and non-words, there is little difference between both scores signifying that in this case the students approached the reading of both types of words in a similar way.

Discussion

This study has aimed to determine whether implicit instruction in reading multisyllabic words does improve comprehension. This topic has draw little interest from researchers to date who have put much energies into the study of monosyllabic words. Overall this study did prove that syllable training can have an effect on comprehension. The overall trend showed some unexpected outstanding results for such a short period.

These results are a credit to the students who undertook the intervention sessions. Each child was withdrawn from his/her classroom and normal class activities, but came with a very positive attitude and willingness to learn. Each member knew their

difficulties with reading 'big' words and was keen for some assistance. Some of the students expressed awareness of their tendency for substituting incorrect letters, Student C knew he was unable to blend long words together and Student D was continually made aware by the instructor of his tendency to only look at the first 1-3 letters. Student A worked really hard at remembering long and short vowel sounds, which had plagued his reading throughout school. The best tool used during these intervention session were the strip card. These were strips of paper folded with words written along the fold. By pulling the strip out, it stretched the word into syllables. This enabled the children to see syllables clearly and help them to blend them together. It was also a great way to see prefixes and suffixes. (Example in appendix 5)

Further investigation and analysis of participants pre-testing support the view of Chill (1933) and Mason (1996) who believe those who rely on the guess and check strategy and have inadequate decoding skills will struggle in upper primary. Not only were the student guessing words but also they clearly had difficulties decoding and recoding. It was also evident that explicit instruction in some areas of phonemic/phonological knowledge in order to provide the scaffolding for improving their reading, was required. The participant's inability to successfully decode multisyllabic words also supports Spear-Swerling (1994) findings that reading difficulties can occur as a direct result of this.

In addition, the findings of this research also back the work of Duncan and Seymour who believe that the 2 most important factors in teaching the reading of multisyllabic words are the knowledge of where to syllabify and where to apply stress. It should however be noted that unlike Duncan and Seymour, this research included explicit training in phonological/phonemic knowledge and also practice of reading prose. These additional areas of teaching also attributed to the gains the students made.

The question was always to discover what effect, direct instruction in learning to read multisyllabic words has on a reader's ability to comprehend. Research indicates that if the reader can effectively decode they are also better able to comprehend. The post-teaching results also support this theory with significant gains in comprehension using the Neale Analysis as a measure. Though it should also be noted that acquiring good decoding skills is only one element that helps improve comprehension. There are also many other metacognitive skills that need to be taught in order to improve comprehension, which this study did not have the capacity to cater for.

The implication of this study suggest the importance of the continual development of the phonological/phonemic knowledge such as letter clusters, onset and rime, suffixes and prefixes, blending etc especially in the middle years of primary school. The explicit teaching of multisyllabic words can also be seen as an effective remediation for any struggling reader in the middle and upper primary levels. The teaching of such skills as seen through this study can also have the flow on effect of improved reading fluency, comprehension and spelling.

Some of the limitations of this study should be noted. School concert happened during the intervention sessions, resulting in timetable changes, cancellations and sometimes long breaks between sessions. Absenteeism resulted in some participants missing some sessions. The author also notes that 5 student was possibly 2 students too many for the amount of allocated time. The teaching of syllable boundaries and stress patterns required a lot of oral work, one-on-one ,which was time consuming. The author surprisingly, was required to spend more sessions on teaching syllable boundaries, which left not enough time to successfully master stress patterns and form a good understanding of 'schwa'.

As little research does exists in the area of multisyllabic reading and the effects on compehension, further research is needed. A much larger study with a bigger cohort could yield some vital information which in effect reduce the incidences of reading difficulty in the middle and upper primary school.

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Peters South Australian Spelling Test

TORCH Test of Reading Comprehension ACER, 2003

Appendix 1

Multisyllabic Words

Bisyllabic Word

Trisyllabic Words

Orthographically Simple		Orthographi Complex	ic x	Orthographic Simple	ally	Orthographics Complex	ally
1 st syllable	2 nd syllable	1 st syllable	2 nd syllable	1 st syllable stressed	2 nd syllable	1 st syllable	2 nd syllable
stressed	stressed	stressed	stressed		stressed	stressed	stressed

random	confess	parcel	disguise	vitamen	deliver	parachute	challenging	beneficial
bandit	forget	mountain	conceit	calendar	terrific	discipline	container	phenomenal
relic	canal	lettuce	beneath	festival	republic	whispering	symbolic	manoeuvres
carol	detach	sausage	deceit	diplomat	commander	sacrifice	cathedral	authorities
fabric	refresh	junior	moustache	handicap	refreshing	technical	digestive	institution
jester	dispel	hostage	deprive	cardigan	volcanic	magnified	relation	vacinity
canyon	between	liquid	replied	talented	dismissal	celebrate	cathedral	refrigeration

Multisyllabic

Non Words

Orthographica	lly Simple	Orthographically Complex Orthographically Simple		Orthographica	lly Complex		
1 st syllable stressed	2 nd syllable stressed	1 st syllable stressed	2 nd syllable stressed	1 st syllable stressed	2 nd syllable stressed	1 st syllable stressed	2 nd syllable stressed
ponrol	forfess	parggle	succeit	canimat	colider	cenifice	cabotion
glomic	disfer	reacel	conchine	milenvan	tecorted	dissenring	demainken
renyon	poscuss	wricret	patain	taraster	remiblic	whicobrate	migedral

Appendix 3

Teaching Sequence

Lesson 1	Phonological Knowledge	
	Review and reinforce	
	• What is a vowel/constanant	
	• What sounds each vowel (long and short) can make	
	 Vowel-vowel digraphs 	
	Teaching Multisyllabic Words	
	• What is a syllable? Syllables are beats/claps in a word.	
	• Each syllable must contain a vowel sound.	
	 Students practice breaking words into syllables 	
	• Students count the amount of syllables contained in each word	
	Prose Reading	
	Children first scan through the text to identify any words they think they will struggle with and	
	will be asked to decode these words by breaking them into syllables. Once the children are	
	confident with the text, the group will take the opportunity to read it aloud.	
	Reflection	
		45 minutes
	The children are asked to discuss what they have learnt in the session today.	
Lesson 2		
	Phonological Knowledge	
	• Review of Lesson 1	
	• Review and reinforce the dependable rimes – explain their significance to reading	
	multisyllabic words	
	Teaching Multisyllabic Words	
	• Review of lesson 1	
	• Break words into syllables according to their onset and rime	
	Prose Reading	
	Reread from the previous lesson. Practice the words that were difficult	
	Aim to read the passage with more fluency	
	r	
	Reflection	
	The children are asked to reflect and discuss what they have gained from today's lesson	45 minutes

Lesson 3	 Phonological Knowledge Revise lessons 1 and 2 Identify suffixes and prefixes-look at meanings 	
	 Teaching Multisyllabic Words Revise content taught in lessons 1 and 2 Do word building activities, looking at onset and rime as well prefixes and suffixes Make two syllable words from on syllable words 	
	Prose Reading	
	Reflection The children are asked to discuss what they have learnt in the session	
		40 minutes
Lesson 4	Phonological Knowledge	
	• Review of previous lessons	
	• Teach stressed and unstressed syllables	
	Teaching Multisyllabic Words	
	• Revise earlier lessons	
	• Examine equal stressed words eg. Baseball, schoolroom, cupboard	
	Prose Reading	
	Reflection	
	The children are asked to discuss what they have learnt in the session	15 minutes
	Phonological Knowledge	45 minutes
Lesson 5	• Review of previous lessons	
	• Make children aware of the unstressed vowel or the schwa. This schwa often makes a	
	'short grunt' or 'uh' sound for example shortuh (er)	
	Teaching Multisyllabic words	
	• Revision of lessons 1-4	
	• Examine words with the schwa sound. Break these words into syllables. Blend the	
	together	

	• Prose Reading	
	Reflection The children are asked to discuss what they have learnt in the session	
		45 minutes
Lesson 6	Phonological Knowledge	

	• Review of lessons 1-5	
	• Look at two syllable words were the second syllable is distressed	
	Teaching Multisyllabic Words	
	• Review of the above	
	• Practice using different stress patterns to words eg tr-jangle or tri-angle	
	r and r a	
	Prose Reading	
	Reflection	45 minutes
	The children are asked to discuss what they have learnt in the session	
Lesser 7		
Lesson /	Phonological Knowledge	
	o Revise above	
	• Examine 2 syllable words with a long vowel in one and the second syllable is de-	
	stressed	
	Teaching Multisyllabic words	
	• Pavisa what has been learnt so far	
	Unexperied and the second seco	
	• Have children practice segmenting and blending words with the second syllable	
	distressed	
	Prose	
		15 minutes
		45 minutes
	Reflection	
	The children are asked to discuss what they have learnt in the session	
Lesson 8	Phonological Knowledge	
	• Revision of all work so far	
	• Examine 2 syllable words with a long yowel in one and the first syllable is de-stressed	
	5 - Examine 2 synable words with a long vower in one and the first synable is de-suessed	
	Teaching Multisyllabic Words	
	o Revise	
	• Children continue practice on manipulating stress patterns to handle unstressed or	
	silent letters	
	• Encourage children to use analogy strategies	
	Prose	

Reflection	
	45 minutes

Lesson 9	Phonological Knowledge	
	• Review and refine all that has been learnt so far	
	Teaching Multisyllabic Words	
	 Group 3 and 4 syllable words according to the main morphograph to words share eg telephone, microphone, homophone 	45 minutes
	Prose Reading	
	Reflection	
	The children are asked to discuss what they have learnt in the session	
Lesson 10	Phonological Knowledge o Review	
	Teaching Multisyllabic WordsReview	
	Prose Reading	1 hour
	Reflection The children are asked to discuss what they have learnt in the session	

Cue Card

Syllables

Breaking and Blending Words

Vowels: a,e,i.o,u and sometimes y make vowel sounds

Every syllable contains a vowel sound

Every syllable is one 'beat'. The syllables can be tapped or clapped

When breaking words into syllables look for familiar groups of letters like Ow, ough, ph, ar, ear, ea, ai, ight, tion....

When looking to break words into syllables look for

pre-fixes – a group of letters added to the beginning of a word eg. Re, uni, bi, ed, er, tri, un, poly, tele, homo,tri, pre, be, aqua.....

Suffixes – a group of letters that are added to the end of a word Eg. Able, ing, ment,ance, ic,or,ful, ite,ism, ment,oin

A syllable is stressed if it sounds longer and louder than the other syllables in the word

A syllable is de-stressed if it is sounds shorter and quicker.

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