Instructional Resources Centre
Ubon Ratchathani University

USING PHONICS INSTRUCTION TO IMPROVE SINGLE - SYLLABLE WORD READING OF THE FOURTH GRADE STUDENTS AT AVE MARIA SCHOOL

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AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF
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TITLE USING PHONICS INSTRUCTION TO IMPROVE SINGLE – SYLLABLE WORD READING OF THE FOURTH GRADE STUDENTS AT AVE MARIA SCHOOL

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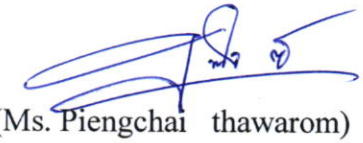

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ชื่อเรื่อง : การใช้การสอนการอ่านแบบโฟนิกส์พัฒนาการอ่านคำพยางค์เดียวของนักเรียนชั้นประถมศึกษาปีที่ 4 โรงเรียนอาเวมารีอา

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ศัพท์สำคัญ : การสอนแบบโฟนิกส์ คำพยางค์เดียว การอ่าน

งานวิจัยนี้มีจุดมุ่งหมายเพื่อศึกษาประสิทธิภาพของการใช้การสอนการอ่านแบบโฟนิกส์ต่อทักษะการอ่านคำพยางค์เดียวของนักเรียนชั้นประถมศึกษาปีที่ 4 กลุ่มทดลองคือนักเรียนระดับชั้นประถมศึกษาปีที่ 4 ที่กำลังศึกษาในภาคเรียนที่ 2 ปีการศึกษา 2554 โรงเรียนอาเวมารีอา อำเภอเมือง จังหวัดอุบลราชธานี จำนวน 20 คน

เครื่องมือที่ใช้ในการศึกษาประกอบด้วยแบบทดสอบการอ่านซึ่งใช้เพื่อเลือกกลุ่มทดลอง แบบทดสอบก่อนเรียน และแบบทดสอบหลังเ รียน วิธีวิจัยทำโดยให้กลุ่มทดลองอ่านคำจากแบบทดสอบก่อนเรียนก่อน ได้รับการ สอนการอ่าน ด้วยโฟนิกส์ จากนั้นจึงอ่านแบบทดสอบหลังเรียนเพื่อดูประสิทธิภาพของวิธีการสอนการอ่านแบบโฟนิกส์ โดยวิเคราะห์ข้อมูลด้วย สถิติทดสอบที (T-test) ค่าเฉลี่ยเลขคณิต (Means) และค่าร้อยละ (Percentages)

ผลของการทดลองชี้ให้เห็นว่า ความสามารถในการอ่านคำพยางค์เดียวของนักเรียนได้เพิ่มขึ้นอย่างมากหลังจากได้เรียนด้วยวิธีการสอนอ่านแบบโฟนิกส์ ทักษะการอ่านของกลุ่มทดลองได้เพิ่มขึ้นอย่างมีนัยสำคัญที่ค่า $P<0.05$

ABSTRACT

TITLE : USING PHONICS INSTRUCTION TO IMPROVE SINGLE – SYLLABLE WORD READING OF THE FOURTH GRADE STUDENTS AT AVE MARIA SCHOOL

BY : PIENGCHAI THAWAROM

DEGREE : MASTER OF ARTS

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CHAIR : SAISUNEE CHAIMONKOL, Ph.D.

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The purpose of this study was to investigate the effectiveness of phonics instruction on fourth grade students' single syllable word reading. The subjects were 20 fourth grade students in the second semester of the academic year 2011 at Ave Maria school, Muang District, Ubon Ratchathani.

The instruments used comprised the phonics test that was used for subject selection, pre-testing and post-testing. The students were assigned to read the words on the pre-test before taking the phonics course. Post-testing was then carried out to determine the effectiveness of the phonics method. The data were analyzed using t-test, means, and percentages.

The results of the study indicated that the students' single syllable word reading ability improved substantially after the students had been treated with the phonics instruction. The reading ability of the subjects was significantly higher at $P < 0.05$.

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CHAPTER 1
INTRODUCTION

This chapter focuses on the rationale of the study, research question and purpose of the study, significance of the study, scope of the study as well as definitions of key terms.

1.1 Rationale

English plays an important role in global communication as evidenced by its use in various media such as newspapers, advertisements, books, songs, movies and the Internet. In other words, English serves as a medium of communication in social, commercial, and educational fields (Crystal, 2006). The Thai government has realized its significance as the global language, so English teaching has been required in the curriculum at every level from kindergarten through university in the Thai educational system (Ministry of Education, 2008). However, a large number of students are still not proficient in English.

Reading ability is undeniably essential for English as a Foreign Language (EFL) students in order to access textbooks and other reading materials. To be able to read, the students, especially the beginners, need word decoding skill which is considered necessary for improving reading and writing proficiency (Allington & Franzen, 2010). However, most EFL students still have problems reading English during the early year of schooling (Calhoun, 1999 ; Westwood, 2008).

Regarding this matter, Rigney (2010: 7) mentions "Matthew Effect" in which "the rich get richer, and the poor get poorer". That is, those who are successful readers at early stage seem to have better reading ability whereas those who have reading difficulties at the beginning generally become ineffective readers. It is also claimed that limited knowledge of sound-spelling relationships or decoding skill is regarded as the main cause of reading disability (Linse, 2005).

According to Thai Basic Education Curriculum B.E. 2551, fourth grade students or students in the first year of the higher elementary level (Prathomsuksa 4-6) should be able to read aloud sentences, texts, and tales. This means the students should already know how to read words when they were in the lower elementary level (Prathomsuksa 1-3). However, many higher elementary students still struggle with

Similarly, the majority of primary students at Ave Maria school, a private school in Ubon Ratchathani, cannot read unfamiliar words. They have limited reading skill and struggle with individual sound identification as found in reading- aloud tests. After several reading aloud sessions, the researcher noticed one of the basic problems influencing the learners' reading performance was their ignorance of letter-sound correspondence. For example, learners could not identify English sounds like /k/, /f/, /g/, /m/, /n/, /v/, /w/, /z/, /ʃ/, /ʤ/ etc. from spelling. Therefore, they could not read the words which are different only in one sound. For instance, they could read "lot", but not "rot", "tree" but not "free". It happened that they could read only frequent words wholly presented by the teacher. In other words, students' reading ability relied on recalling memorized words rather than decoding the sounds of the letters in order to read unfamiliar words. To overcome the reading disability, the learners must be skillful in decoding letter-sound correspondences in order to read unknown words and develop fluency in reading.

One widely recommended instruction of reading is using phonics. Phonics is reading instruction focusing on letter-sound correspondences (Sencos, 2002). It helps students decode sounds from letters so as to get the right pronunciation, resulting in reading enhancement. For this reason, the researcher would like to apply phonics instruction in a primary class in order to find out how much students' reading ability improves after phonics instruction.

1.2 Research question

To what extent phonics instruction does help increase the fourth grade students' ability to read single-syllable words?

1.3 Purpose of the study

The study was conducted to find out the extent to which phonics instruction helps the beginning readers understand how letters are linked to sounds.

1.4 Significance of the study

The study aimed to improve fourth grade students' single-syllable word reading through letter-sound correspondence knowledge. If phonics instruction is effective, teachers can adopt it as a technique in their teaching of reading.

1.5 Scope of the study

The study focused on single-syllable words with five short vowel sounds including /æ/, /ɛ/,/ɪ/, /ɔ/ and /ʌ/ and 18 initial consonant sounds representing basic letter- sound correspondences (each letter representing a common sound for the beginners), which are /b/, /d/, /f/, /g/, /h/, /ʤ/, /k/, /l/, /m/, /n/, /p/ ,/r /,/s/,/t/,/v/,/w/,/y/, and/z/. The letter *"c"* was excluded because it sounds the same as the letter *"k"*, which more clearly represents the sound than the letter *"c"*. The letter *"g"* in this study is pronounced /g/, not /ʤ/ which is represented by the letter *"j"*. Codas were not under study because some letters cannot appear in the final position in basic words. Diphthongs, moreover, silent letters, clusters, diagraphs like "*th*", "*sh*", "*ch*" and one letter representing two phonemes like the letter 'x' pronounced as the /ks/ or /gz/ and the letter "q" representing /kw/ are not included because they are more complex and should be introduced later.

1.6 Definitions of key terms

The key terms used throughout the study are briefly defined below.

1.6.1 Phonics

Phonics is a way to teach the beginning readers to read through letter-sound correspondences (Blevins, 1998; Strickland, 2005).

1.6.2 Reading

Reading refers to the ability of the students to sound out the printed single-syllable words.

1.6.3 Decoding

Decoding is defined as the ability to discover the letter-sound relationship in order to read unfamiliar words (Linse, 2005).

1.6.4 Single-syllable words

Single-syllable words are words with the internal structure of a consonant, a vowel and a consonant (CVC).

1.6.5 Letter-sound correspondence

Letter-sound correspondence refers to the association of individual letters with sounds.

CHAPTER 2
LITERATURE REVIEW

This chapter presents the information about phonics, skills for reading as well as related studies.

2.1 Phonics

Ability to sound out words is a significant skill for ESL learners because it helps students learn how to sound out several words (Blackmore & Weston, 2006). Phonics instruction is a way to help the beginners learn how to read new words.

2.1.1 The definition of phonics

Phonics is a way to teach how to read. As defined by Robert et al (2009), phonics is a reading instruction which focuses on letter – sound relationships used in reading and writing. In other words, it is a guideline to decode sounds from letters and vice versa. It helps the beginners to comprehend the linkage between letters (graphemes) and sounds (phonemes) in spelling in order to apply this knowledge to their reading (Ehri, 1998).

2.1.2 Kinds of phonics

There are two basic kinds of phonics instruction: synthetic and analytic phonics as described below:

2.1.2.1 Synthetic phonics

Synthetic phonics, also called word-building, is a reading instruction concerned with how individual letters are pronounced and blended to form a pronounceable word (Westwood, 2008). It requires students to study letter-sound correspondences in order to decode and blend sounds to read the words. For example, a word *"rot"* is pronounced by blending the sounds of /r/, /ɔ/ and /t/ together and read as /rɔt/.

2.1.2.2 Analytic phonics

Analytic phonics involves analyzing phonemes of a word. In analytic phonics, children learn to recognize words by learning individual letter sounds (Johnson, 2007: 32). According to Westwood (2008: 23), "analytic phonics is letter -to -sound relationships taught by breaking down words already known by sight into their separate phonic components: e.g. stop = /st/-/ɔ/-/p/." Another example is when the student learns that the initial phonemes of the word *rat* and *rot* are the same phoneme /r/.

2.1.3 Benefits of phonics instruction

Not only does a non - English speaking country require phonics instruction for English reading learning but English speaking countries also do (Rose, 2006). According to Sencos (2002), phonics is an effective way to teach the English language because it can enhance students' phoneme identification in spoken and written language. Moreover, phonics can provide the students with common rules to pronounce English words, which help increase their reading ability (Blackmore & Weston, 2006).

Furthermore, Vaughn & Thompson (2004) assert the significance of alphabetic knowledge at the beginning of schooling because children who recognize letters quickly tend to be more accurate readers. The alphabetic knowledge, which involves the shapes, names, and sounds of letters, helps students learn letter-sound correspondence more effectively.

Wiley (1998) adds that phonics aids word recognition development, which is supported by Birch (2002), who claims that phonics helps students memorize words over time. When students say the letter names instead of the sounds, they will face reading difficulty when they read new words. The problem can be solved with phonics because it helps students understand letter-sound correspondences and develop their knowledge of the way words are formed, resulting in long term memorization of the words.

What is more, students with print awareness could read some signs and logos. When they encounter read-aloud activities, classroom signs, labels, poster, they could read them (Blevins, 1998). This makes learners aware of the significance of reading, which is useful for their real life.

Additionally, phonics is an effective tool to enhance motivation as the learners will enjoy learning if they are taught appropriately (Linse, 2005)

2.2 Skills for reading

In order to read, the learners must be skillful in how to decode letters and have phonemic awareness.

2.2.1 Decoding skill

In order to read English words, EFL students must be able to decode the 26 alphabetic letters that carry approximately 40 sounds as shown in the table below.

Table 1 Letter–sound correspondence

No.	Alphabet letters	Sounds of the letters
1	a	/æ/,/ɔ/,/ei/,/a:/
2	b	/b/
3	c	/k/,/s/
4	d	/d/
5	e	/e/,/ɛ/
6	f	/f/
7	g	/g/,/dʒ/
8	h	/h/,/ɸ/
9	i	/i/,/ɪ/,/ai/
10	j	/dʒ/
11	k	/k/
12	l	/l/
13	m	/m/
14	n	/n/
15	o	/ou/,/ɔ/
16	p	/p/
17	q (qu)	/kw/

Table 1 Letter–sound correspondence (Continued)

No.	Alphabet letters	Sounds of the letters
18	r	/r/
19	s	/s/
20	t	/t/
21	u	/yu:/,/ʌ/,/ʊ/,/u:/,/u/
22	v	/v/
23	w	/w/
24	x	/ks/,/gz/
25	y	/y/,/i/,/ai/
26	z	/z/
27	ch	/tʃ/
28	sh	/ʃ/
29	th	/θ/, /ð/
30	ng	/ŋ/

Due to this complication, the readers may encounter problems with letter- sound correspondences. To avoid such problems, children should have the decoding skill when they start learning English; otherwise, reading difficulties may hinder their understanding of unfamiliar words (Cardenas, 2009).

2.2.2 Phonemic awareness

To be able to read, the beginning readers necessarily gain phonemic awareness. Phonemic awareness refers to the ability to distinguish phonemes (the smallest unit of meaningful words) in spoken words (Bailey, 2008). It involves the understanding that speech can be broken into small units of sounds (Lyon & Moore, 2003). This is practiced when the learners are able to categorize the letter - sound correspondences; for example, after hearing the word "fat", they are able to distinguish the sounds /f/, /æ/ ,/t/. According to Armbuster (2003: 3), "after demonstrating phonemic awareness, students begin to develop their ability to rhyme, identify onset sounds, and recognize syllables".

2.3 Previous studies

In this part, some previous studies that relate to phonics instruction will be presented. They involve children's reading development and phonics instruction.

Grabe & Stoller (2002) conducted a study to find out whether letter-sound knowledge and phonemic awareness are the factors influencing children's reading development at early stages. They taught the relationship between individual letters and sounds to 40 seven -year- old students over a period of 12 weeks (30 minutes per week), and then had the students identify phonemic sounds in words. At the end of the treatment, it was found that 80 % of the children were successful in both phoneme identification and letter- sound knowledge. In addition, the researcher found that 75% of the subjects could read a set of new simple words.

Ryder et al (2007) conducted a study aiming to examine whether explicit instruction of a phonemic awareness and phonological decoding skills would be an effective method for children having difficulty in early reading. Twenty-four learners aged 6 and 7 struggling with early reading were chosen for the experimental group. The course lasted 24 weeks. All the students took phonemic awareness and alphabetic decoding lesson by a reading specialist. The result indicated that phonics instruction was effective for not only enrichment of phonemic awareness and decoding skill but also enhancement of word recognition accuracy.

Cardenas (2009) also conducted research on "Phonics instruction using pseudo words for success in phonetic decoding." The researcher intended to find out if the instruction of pseudo words could enhance the students' reading ability compared to the typical real-word instruction. The subjects of the study were 30 kindergarten students, the majority of whom (67%) were Hispanic. The subjects were divided into two groups; experimental and control groups. The process of teaching consisted of three phases. In the first phase, both groups took the real-word phonics instruction.
In the second phase, the experimental group received the pseudo word phonics instruction while the control group continued real-word phonics instruction. During Phase 3, both groups were taught with real-word phonics instruction. It was found that the reading skill of the experimental group was greater than that of the control group

because pseudo word instruction better improved the students' phoneme identification. That is, it could better assist them in decoding unfamiliar words.

Another study which was conducted by Sinsap (2009) investigated Matthayomsuksa 1 students' English reading and spelling skills as well as motivation development through the use of the phonics method. The results showed that students' reading and spelling skills improved substantially when being taught using the phonics method.

Moreover, Punyapet & Laohawiriyanon's (2012) research focused on investigating the effects of systematic remedial phonics instruction to develop the reading aloud skill. It aimed to improve reading aloud ability of eight Mathayomsuksa 1 students with low English proficiency at Banthungsala School, Songkla province with phonics instruction. The result showed that the students' reading became better after taking the lesson. However, the subjects were not able to read the words which do not follow phonics rules. Thus, phonics should be used together with the whole-word approach.

The studies above have all shown that phonics instruction can improve the reading ability and overcome the lack of phonemic awareness and decoding skill which is regarded as a barrier to English literacy. Due to its benefits as well as the lack of its instruction at Ave Maria school, the researcher was interested to know whether it would be effective for the students. In this study, the focus is on teaching the fourth grade students how to read single-syllable words through phonics.

CHAPTER 3
METHODOLOGY

This chapter discusses the research methodology which includes subjects, instruments, procedures, data collection and analysis.

3.1 Subjects

Twenty subjects out of all 82 fourth-grade students at Ave Maria school were chosen based on their scores on the subject selection test,also used as the pre-test and the post - test. They were the 20 students who gained the lowest scores; that is, their scores were lower than 30 %, or the scores in the range of 0-23 out of the total of 72. They were considered having a serious problem on reading, and they needed to take the intensive phonics course. However, those who could not read the English alphabets were not included in the study because of the limited time.

3.2 Instruments

The instruments used in the study are phonics test and teaching materials described below.

3.2.1 Phonics test

The phonics test was used for subject selection, pre-test and post-test. That is, it was used to select the subjects, to evaluate the students' reading ability before taking the phonics course and to determine whether there existed any improvement of the students' reading ability after the treatment.

The test was adapted from Jolly Phonics book by Lloyd (2007) together with the content from the website chosen for the course called "star fall" organized and developed by a team led by Brandi Chase (Schutz, 2002). It included 36 unfamiliar CVC words, which were believed to be unfamiliar to the students as they do not appear in P1-P4 text books. The words contain 18 initial consonants and five short vowel sounds as shown in the following table.

Table 2 Test specifications

Test words								
No.	**Test Words**		**Initial consonant sounds**	**Vowels sounds**				
				/æ/	**/ɛ/**	**/ɪ/**	**/ɔ/**	**/ʌ/**
1.	bop	biz	/b/			√	√	
2.	den	dun	/d/		√			√
3.	fed	fig	/f/		√	√		
4.	gag	gum	/g/	√				√
5.	hog	hag	/h/	√			√	
6.	jig	jut	/dʒ/			√		√
7.	kin	kop	/k/			√	√	
8.	lop	let	/l/		√		√	
9.	meg	min	/m/		√	√		
10.	nun	nip	/n/			√		√
11.	pun	peg	/p/		√			√
12.	rum	rod	/r/				√	√
13.	sag	sip	/s/	√		√		
14.	tog	tub	/t/				√	√
15.	vat	von	/v/	√			√	
16.	wad	web	/w/	√	√			
17.	yet	yam	/y/	√	√			
18.	zit	zap	/z/	√		√		
Total scores	**72 scores**		**36 scores**	**7 scores**	**7 scores**	**8 scores**	**7 scores**	**7 scores**

All are real meaningful English words the students had not been exposed to in the phonics course. Each consonant sound is contained in 2 words in the initial position, each vowel sound in 7 words except the vowel /I/ which is contained in

8 words to complete the total number of words. Codas were not scored because some letters cannot appear in the final position in basic words.

3.2.2 Teaching materials

Teaching materials were also adapted from the "Star fall" website, which is a free online phonics teaching website for children who are learning to read in English. The website provides a guideline to lead teachers in teaching phonics, and the activities are suitable for the subjects because that website is designed for pre-school readers up to primary learners. Most words are easy to read and each set of words is introduced based on the same letter-sound correspondences such as - en in *pen, hen, and men.*

3.3 Procedures

The study was conducted according to the following procedures:

3.3.1 Subject selection

To select the subjects of the study, all 82 fourth grade students at Ave Maria school were first assigned to read the English alphabet letters to measure their alphabetical reading ability. Then the pre-test was given to 74 of them who could read all the alphabet letters. Each individual student read aloud the words on the pre-test (See appendix A). The test was used not only to select the subjects but it was also to evaluate their ability in reading. Their English teacher who is a Filipino scored their reading using the criteria designed by the researcher (See appendix A).

The 20 students who gained the lowest scores were selected as subjects who were also required to take the phonics course.

The subjects' scores were also used as the scores on the pre-test, indicating their reading ability before the phonics instruction and were to be compared with those on the post-test

3.3.2 Phonics treatment

The subjects were taught to read by using phonics twice a week after school. Each class lasted an, totaling 8 hours over a period of 4 weeks during the second semester of the academic year 2011. The phonics course was divided into

3 lessons, including letter-sound correspondence, consonant and vowel sound blending and reading through the words as elaborated below.

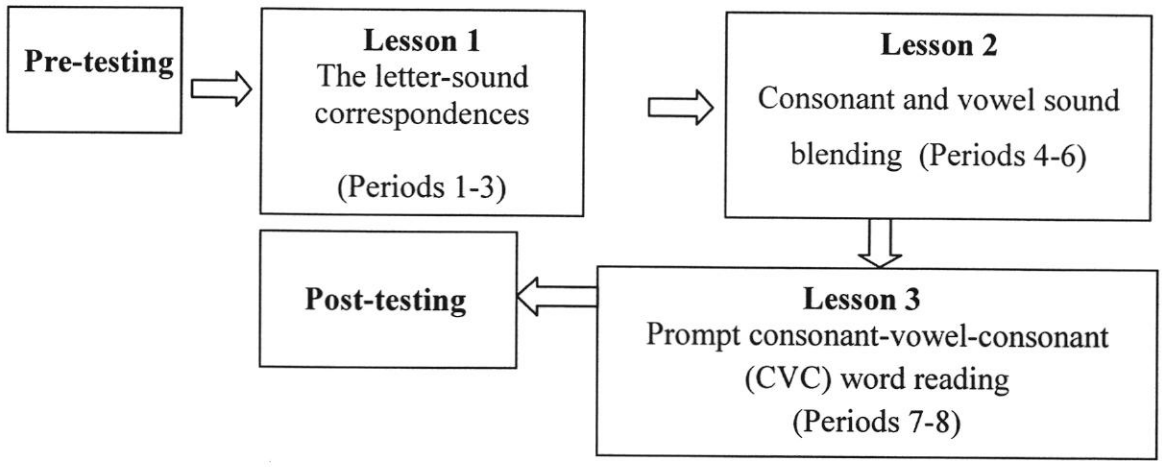

Figure 1 Procedures of the experiments

For the first lesson covering 3 hours, the subjects were taught the letter-sound correspondences. They were expected to be able to read 18 consonant and 5 short vowels in the phonics way as shown in tables 3 and 4.

Table 3 Consonant letters and sounds (Lad-forged, P& Johnson, K, 2011)

No	Consonant letters	Consonant sounds
1	b	/b/
2	d	/d/
3	f	/f/
4	g	/g/
5	h	/h/
6	j	/ʤ/
7	k	/k/
8	l	/l/

Table 3 Consonant letters and sounds (Lad-forged, P& Johnson, K, 2011) (Continued)

No	Consonant letters	Consonant sounds
9	m	/m/
10	n	/n/
11	p	/p/
12	r	/r/
13	s	/s/
14	t	/t/
15	v	/v/
16	w	/w/
17	y	/y/
18	z	/z/

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Table 4 Vowel letters and sounds (Lad-forged, P& Johnson, K, 2011)

No	Vowel letters	Vowel sounds
1	a	/æ/
2	e	/ɛ/
3	i	/ɪ/
4	o	/ɔ/
5	u	/ʌ/

For the second lesson lasting 3 hours, the subjects were taught how to blend consonant and vowel sounds. After the subjects had learned how to identify the individual letter sounds, they were taught to read vowel-consonant (VC) rimes (vowel and final consonant) such as /æ/-/n/ for /æn/, /ɛ/-/t/ for /ɛt/, /ɪ/-/t/ for /ɪt/, /ɔ/-/t/ for /ɔt/ and /ʌ/-/t/ for /ʌt/. Then they were to put initial sounds in front of VC rimes to read CVC words, for instance, /r/-/æn/ for /ræn/, /b/-/ɛt/ for /bɛt/, /n/-/ɔt/ for /nɔt/ and /h /-/ʌt/ for /hʌt/.

For the third lesson taking 2 hours, the students practiced reading words with the same time, for example, a for /æ/ as in *bat*, *hat*, e for /ɛ / as in *hen, pen, men*, i for / ɪ/ as in bin, fin, min, pin, o for /ɔ/ as in *dot, hot, not* , and u for /ʌ / as in *but, hut, nut*. The words taught did not include those on the test. As the CVC pattern was easy to read and to decode, the students were expected to decode the words quickly.

To solve the reading disability, the students were taught through synthetic and analytic phonics. Synthetic phonics was used for the first and the second lesson; for example, the word "sat" was decoded to form the pronunciation of the word /sæt/. This method was beneficial for reading unfamiliar words. Analytic phonics was used for teaching how to read the unfamiliar words at the third stage. The teaching procedures were mentioned in lesson plans (See appendix B). Eventually, they applied the letter-sound correspondence knowledge to reading words.

3.3.3 Post-testing

After the treatment, the students were required to take the post-test to see whether there was any improvement in their reading ability. The post-testing procedure was the same as that of the pre-testing. The judge was also the same.

3.4 Data collection and analysis

The data collection was performed by a Filipino teacher who was in the Intensive English Program (IE) for primary students at Ave Maria school. With a Master's degree in teaching English, she was considered a qualified judge. Each word on the test was worth two points: one point for an initial sound and the other for a vowel sound. The most or the least problematic sounds which caused low reading proficiency were also investigated. The scores of the pre-and the post-test were compared and analyzed using t-test, means, and percentage.

CHAPTER 4
RESULTS

This chapter presents the results of the study that answer the research question.

4.1 Results of the study

After the data collection and analysis, it is clearly visible that phonics instruction did greatly enhance the single-syllable word reading ability of the fourth grade students at Ave Maria school as shown below.

Table 5 Scores of the pre-and the post-tests

Subject No.	Pre-test (76 points)	Post-test (76 points)	Gained scores
1	16	46	30
2	21	54	33
3	9	62	53
4	21	68	47
5	21	72	51
6	20	72	52
7	21	70	49
8	18	66	48
9	20	60	40
10	21	60	39
11	15	72	57
12	20	72	52
13	18	58	40
14	21	62	41

Table 5 Scores of the pre-and the post-tests (Continued)

Subject No.	**Pre-test (76 points)**	**Post-test (76 points)**	**Gained scores**
15	18	72	54
16	20	68	48
17	21	72	51
18	16	56	40
19	12	52	40
20	19	58	39
$\bar{X}$	**18.40**	**63.60**	**45.20**
SD	**3.331**	**7.937**	**P- Value =0.00**

According to table 5, all the subjects gained higher scores after the treatment. The scores of the pre-test range from 9 to 21 with the mean of 18.40 while those of the post-test range from 52 to72 with the mean of 63.60. The gained scores range from 30 to 57.

It is also interesting that all failed the pre-test, but none failed the post-test. The results of the pre-test and the post-test are significantly different at P = 0.00. This shows that phonics instruction greatly improved the students' English single-syllable word reading ability.

The students' consonant and vowel reading is illustrated in tables 6.

Table 6 Scores of consonant and vowel sounds on the pre-and post-tests

Sounds / Percentage	**Pre-test (%)**	**Post-test (%)**	**Gained scores (%)**	**P-Value**
Consonant sounds	63.61	89.72	26.11	0.00
Vowel sounds	24.44	86.53	62.08	0.00

As seen in table 6, vowel sound reading was more problematic than consonant sound reading. On the pre-test, the scores of vowel sounds were very low (24.44%) whereas those of consonant sounds were higher than 50 %.

In contrast, on the post-test, the subjects' ability to read the five vowel sounds statistically improved at P=0.00. Regarding the gained scores, those vowel sounds rose by 62.08 % while those of consonant sounds increased by 26.11 %.

This shows that phonics instruction greatly improved the students' reading ability of both English vowel and consonant sounds.

Table 7 below demonstrates the pre-and post-test scores of the initial consonant sounds.

Table 7 Pre-and post-test scores of initial consonant sounds

No	Initial consonant sounds	Pre-test (n=20)	%	Post-test (n=20)	%	Gained scores	%	P- Value
1	/b/	17	85.00	20	100	3	15.00	0.083
2	/d/	16	80.00	18	90.00	2	10.00	0.163
3	/f/	10	50.00	16	80.00	6	30.00	0.010
4	/g/	13	65.00	17	85.00	4	20.00	0.042
5	/h/	16	80.00	19	95.00	3	15.00	0.083
6	/ʤ/	9	45.00	15	75.00	6	30.00	0.010
7	/k/	15	75.00	20	100	5	25.00	0.021
8	/l/	13	65.00	18	90.00	5	25.00	0.021
9	/m/	13	65.00	17	85.00	4	20.00	0.042
10	/n/	11	55.00	15	75.00	4	20.00	0.042
11	/p/	17	85.00	20	100	3	15.00	0.083
12	/r/	9	45.00	15	75.00	6	30.00	0.010
13	/s/	12	60.00	20	100	8	40.00	0.002
14	/t/	17	85.00	20	100	3	15.00	0.083
15	/v/	8	40.00	17	85.00	9	45.00	0.001
16	/w/	14	70.00	20	100	6	30.00	0.010

Table 7 Pre-and post-test scores of initial consonant sounds (Continued)

No	Initial consonant sounds	Pre-test (n=20)	%	Post-test (n=20)	%	Gained scores	%	P- Value
17	/y/	12	60.00	20	100	8	40.00	0.002
18	/z/	7	35.00	16	80.00	9	45.00	0.001
Total scores (360)		**229**	**63.61**	**323**	**89.72**	**94**	**26.11**	**0.000**

Table 7 demonstrates the subjects' ability to read initial consonant sounds before and after the treatment. On the pre-test, the most problematic sounds are /z/ (35%), /v/ (40%), /ʤ/ (45%) and /r/ (45%) as their scores are below 50 %. This shows that the students were likely to have serious problems with consonant sounds absent in the Thai sound inventory.

However, it is noticeable that after the treatment the students made significant improvement for almost all the sounds, except those sounds causing little or no problem on the pre-test such as /b/, /d/, /h/, /p/, and /t/. This indicates that the students' ability to read consonant sounds greatly improved after the phonics introduced.

Table 8 demonstrates the subjects' ability to read vowels.

Table 8 Scores of vowel sounds on the pre – and the post - tests

No	Vowel Sound	Pre-test Scores	%	Post-test scores	%	Gained score	%	P-Value
1	/æ/ (Total =140)	30	21.42	131	93.57	101	72.14	0.00
2	/ɛ/ (Total =140)	33	23.57	126	90.00	93	66.42	0.00
3	/I/ (Total =160)	60	37.50	143	89.37	83	51.87	0.00
4	/ɔ/ (Total =140)	37	26.43	123	87.86	86	61.42	0.00
5	/ʌ/ (Total =140)	16	11.43	100	71.43	84	60.00	0.00
	Total (720)	176	24.44	623	86.53	447	62.08	0.00

As seen from table 8, the subjects had problems decoding all the five vowel sounds as their scores were lower than 50 % on the pre- test. The most problematic vowel sound is /ʌ/ spelled with the letter 'u' with the score of 11.43%, and the least problematic sound is /I/ with the score of 37.50%.

The difference between the pre-test and the post-test scores is significant at P = 0.00, showing that phonics instruction greatly improved the students' English vowel sound reading ability. The greatest enhancement is the ability to read /æ/ with the gained score of 72.14%.

The results of the study are discussed in the next chapter.

CHAPTER 5
DISCUSSION

In this chapter, all the results presented in Chapter 4 are discussed, and pedagogical implications are provided.

5.1 Discussion

Based on the results, the students' average score on the pre-test was 22 out of 76, which is lower than 30 %. This means that the students had difficulty reading English words. Their lack of letter-sound correspondence hindered them from decoding and blending sounds. For instance, the students pronounced the word /pɪn/ because they had been taught that /pi/, /ai/, /en/ was read as /pɪn/. However, when the students encountered unknown words, even with the same letters and sounds, such as the word "nip", they could not pronounce or read it because they did not know how each letter sounded even though they knew the letters /en/, /ai/, and /pi/. That is, they read the letter names, /en/, /ai/ and /pi/, instead of pronouncing the letter sounds /n/, /ɪ/, /p/ blended as /nɪp/. This is obvious that the students' lack of the letter-sound relationship affected their reading ability. This is in line with the claim by Cedenas (2009) that the students cannot read if they cannot decode the sounds of the letters.

During the process of the treatment, the students were taught the association of the sound with a single alphabet letter. When pronouncing a single syllable word, the students could blend initial and final sounds with the vowel. Through the presentation of the phonics instruction, the letter-sound correspondence knowledge was increased. Thus, it resulted in the students' improvement of reading ability as they gained higher scores after the treatment.

This finding supports many claims about the benefits of letter-sound correspondence knowledge (Greve, 2007; Linse, 2005; Markay, 2003). That is, the more one knows how the letter-sound correspondence works, the better one reads words.

Concerning the consonant sounds, Thai students found it particularly difficult to read those sounds which are not present in the Thai inventory. One fifth of the errors were caused by mispronunciation, 90% of which involved the pronunciation of /z/, /v/, /r/, and /ʤ/ which were replaced by /s/, /w/, and /l/, and /c/ respectively. The reason for mispronunciation is that the phonemic inventory of Thai does not contain /z/, /v/, /r/, and /ʤ/ so the students substituted the nearest equivalent sounds in the mother tongue, which is a common strategy used for foreign language learners (Ladforged & Johson, 2011).

Thai has the voiceless fricatives /s/, but not its voiced counterpart /z/; therefore, /s/ was used for /z/. Also, Thai does not have the retroflex /r/, but the trill /r/. However, as many Thais nowadays usually replace the trill /r/ with /l/, the subjects in this study did the same for the retroflex /r/. Similarly, /v/ does not occur in Thai so it was replaced by /w/ because they share the use of the lips and voicing (Brown, 1974). In addition, Thai does not have post-alveolar affricate /ʤ/ but there is a voiceless unaspirated alveolo-palatal affricate/ʨ/ (Ronakiat (2002, cited in Kanokpermpoon, 2007). As a result, the subjects in the study also replaced /ʤ/ with /ʨ/since the two sounds are very close.

Therefore, it can be concluded that this instruction helps solve the problem in reading such letters. Most of the subjects felt more confident in taking the post- test, resulting in the higher scores on the post-test.

However, the students did not make a significant improvement for /b/,/d/,/h/,/p/and /t/ as the p-value was higher than 0.05 (See table 7 in chapter 4). It is because the subjects gained high scores on the pre-test, showing that these sounds did not cause them a lot of problems from the start, so they made little difference on the post- test.

In terms of vowel sounds, on the pre- test most students read the sound /æ/ as /ei/, /ɛ/ as /i/,/ɔ/ as /ɔʊ/, /ɪ /as /æ ɪ / and /ʌ/ as /ʊ/. This clearly showed that the students could not distinguish between the letter names and the letter sounds. This is because when English was first instructed in the classroom, the students were taught to recognize the names of the English letters and had never been introduced to phonics.

After the phonics treatment, the students became more aware of how to pronounce words in English because they realized how each letter sounded.

Therefore, the scores of the post- test significantly increased. When the students were able to decode the sounds of vowels and consonants, then they were able to mix or blend those sounds together to form the pronunciation of the words.

Furthermore, the subjects were observed during the class that their attitudes toward word reading were more positive because they were noticed to have fun in class. This is in line with the claim (Ehri, 1998; Strickland, 1998; Birch, 2002; Bailey 2008) that the phonics method increases learners' enthusiasm and optimism on reading activities. This happens when the students have phonics awareness through their ability to identify the sounds of the letters. Reading English can be interesting and fun when the students feel that new words they encounter are not problematic (Ehri, 1998). That is, the students gained motivation in reading too.

To conclude, having been taught phonics, the students were able to recognize the sounds of the letters and how to blend the sounds, enabling them to read single-syllable words of the CVC structure. That is, phonics instruction greatly enhanced the students' reading ability.

5.2 Pedagogical implications

As reading is an important skill in language learning, phonics instruction should be implemented in early education, especially at the kindergarten or grade 1 level because it helps learners to understand how each letter is pronounced and how the sounds are blended, which is a key fundamental skill for reading words correctly (Ehri, 1998). For adult students, phonics can be implemented in reading for more complex words. Furthermore, phonetics should be instructed along with phonics in order for the students to correctly pronounce the letter sounds, especially those absent in the inventory of the learners' language. Phonics coupled with phonetics can promote accurate reading and pronunciation.

The conclusion is provided in the following chapter.

CHAPTER 6
CONCLUSION

This chapter presents the conclusion, limitations of the study and recommendations for further study.

6.1 Conclusion

Reading English is one of the difficulties that young Thai students encounter when learning English. Many of them do not know how to read English words. In an attempt to solve this problem, this study investigated the effectiveness of phonics instruction on fourth grade students' single syllable word reading. The subjects were 20 low proficient fourth grade students in the academic year 2011 at Ave Maria school, Muang District, Ubon Ratchathani, selected by considering their scores on the pre- test. The instruments used comprised phonics lessons as well as, the pre and the post test. The data were analyzed, using means, percentages and t-test. The results of the study revealed that the phonics instruction greatly enhanced single-syllable CVC word reading ability of the fourth grade students at Ave Maria school.

6.2 Limitations of the study

The results of the study may not be generalized due to the limited number of the subjects, only 20, and the only pattern of the words tested, CVC, with only five short vowel sounds. Moreover, the scoring method seems not perfectly reliable because there is only judge and there is no recording of the subjects' performances.

6.3 Recommendations for further study

Due to the limitations above, further related studies should be conducted with the larger number of subjects and at various levels. Focusing on other syllable patterns of English words and a variety of vowel sounds may also yield interesting results. More than one judges and recording of the subjects' performances are also essential for this study in terms of reliability.

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APPENDICES

APPENDIX A
SCORING TABLE FOR THE SUBJECT SELECTION, PRE – POST TESTING

Scoring table for subject selection and the pre – test

Test words								
No.	**Test Words**		**Initial consonant sounds**	**Vowels sounds**				
				/æ/	**/ɛ/**	**/I/**	**/ɔ/**	**/ʌ/**
1.	bop	biz	/b/			√	√	
2.	den	dun	/d/		√			√
3.	fed	fig	/f/		√	√		
4.	gag	gum	/g/	√				√
5.	hog	hag	/h/	√			√	
6.	jig	jut	/dʒ/			√		√
7.	kin	kop	/k/			√	√	
8.	lop	let	/l/		√		√	
9.	meg	min	/m/		√	√		
10.	nun	nip	/n/			√		√
11.	pun	peg	/p/		√			√
12.	rum	rod	/r/				√	√
13.	sag	sip	/s/	√		√		
14.	tog	tub	/t/				√	√
15.	vat	von	/v/	√			√	
16.	wad	web	/w/	√	√			
17.	yet	yam	/y/	√	√			
18.	zit	zap	/z/	√		√		
Total scores	72 marks		36 marks	7 marks	7 marks	8 marks	7 marks	7 marks

Remark: Each word is worth two points : one for an initial consonant sound and the other for a short vowel sound.

APPENDIX B
LESSON PLANS

LESSON PLAN

Title: Letter – Sound correspondences

1. Content

1) Letter – sound correspondences
   - 18 basic consonants
   - 5 short vowel sounds

2. Duration of the lesson

Three hours

3. Objective

To help develop the students' listening skills and identification of vowels and consonants.

4. Procedures

1) Ask students to read the alphabet a-z.
2) Ask them to identify the consonants and vowels.
3) Introduce them 18 basic sound consonants including /b/, /d/, /f/, /g/, /h/, /g/, /h/, /dʒ/, /k/, /l/, /m/, /n/, /p/, /r/, /s/, /t/, /v/, /w/, /y/, /z/.
4) Introduce to them 5 short vowel sounds, namely, /æ/, /ɛ/, /I/, /ɔ/, /ʌ/.

5. Materials and resources

1) Flash card
2) A poster

6. Assessment

1) Reading aloud test: Jolly Phonics book
2) Matching games: Fun phonics book

Title: Letter – sound correspondence (Sounds of consonants)

1. Content

1) Letter – sound correspondences

- Sounds of /b/, /d/, /g/, /dʒ/, /p/, /t/, /v/, /y/ and /z/
- Sounds of /f/, /l/, /m/, /n/, /r/, and /s/.

2. Duration of the lesson

Two hours

3. Objective

To identify sounds of consonants

4. Procedures

Warm up

1) Ask students to identify sounds of consonants

Presentation

1) Introduce the similarity and the differences of 2 groups of the following letter – sound correspondences.

- Sounds of /b/,/d/,/g/,/dʒ/,/p/,/t/,/v/,/y/ and /z/ the sounds begins at the initial sounds such as bee for /b/, dee for /d/.
- Sounds of /f/, /l/, /m/, /n/,/r/,and /s/. The sounds beginning with the final sounds such as ef for /f/ em/ for /m/.

2) Give out the sound / symbol card for /b/, /d/, /g/, /dʒ/, /p/, /t/, /v/, /y/ and /z/.

3) Point to the words and spell those words. Point out the first letters and say /b/, /d/, /g/, /dʒ/, /p/, /t/, /v/, /y/ and /z/ sounds at the beginning of the words.

Practice

- Students listen and read words with consonant sounds namely, /b/,/d/,/g/,/dʒ/,/p/,/t/,/v/,/y/ and /z/
- Students listen and read words with consonant sounds such as /f/, /l/,/m/,/n/,/r/,and /s/

Production

- Students listen and circle (choose) the words with the correct consonants such as /f/, /l/,/m/,/n/,/r/,and /s/ as said by teacher

5. Materials and resources

1) Flash card

2) A poster

6. Assessment

1) Reading aloud test: Jolly Phonics book

2) Matching games: Fun phonics book

Title: Letter – sound correspondence (Vowel sounds)

1. Content

1) Letter – sound correspondences

- Sounds of /æ/, /ɛ/, /I/, /ɔ/, /ʌ/

2. Duration of the lesson

One hour

3. Objective

To identify vowel sounds

4. Procedures

Warm up

- Ask students to identify sounds of vowels

Presentation

- Introduce vowel sounds, namely, /æ/, /ɛ/, /I/, /ɔ/, /ʌ/

Practice

- Students listen and read words

Production

- Students listen and circle (choose) the words with the correct consonants as said by teacher (/æ/, /ɛ/, /I/, /ɔ/, /ʌ/)

- Here are the words: bad, hat , nut, red, fat , fit, hot

5. Materials and resources

1) Flash card

2) A poster

6. Assessment

1) Reading aloud test: Jolly Phonics book

2) Matching games: Fun phonics book

Title: Single - syllable word reading

1. Content

1) Single – syllable word reading

2. Duration of the lesson

Two hours

3. Objective

To read CVC words

4. Procedures

Warm up

1) Ask students to read the familiar words like van, man, tan

Presentation

1) Introduce sets of words.

2) Point to the words and spell those words. Point out the words and read aloud.

Practice

- Students listen and read words.

Production

- Students listen and circle (choose) the words with the correct spelling as said by teacher

5. Materials and resources

1) Flash card

2) A poster

6. Assessment

1) Reading aloud test: Jolly Phonics book

2) Matching games: Fun phonics book

APPENDIX C

SCORES OF THE PRE-AND POST-TESTS

Table 2 Scores of the pre-and post-tests of initial consonant sounds

No	Initial consonant sounds	Pre-test (n=20)	Percent	S.D.	Post-test (n=20)	Percent	SD
1	/b/	17	85	.366	20	100	.000
2	/d/	16	80	.410	18	90	.308
3	/f/	10	50	.513	16	80	.410
4	/g/	13	65	.489	17	85	.366
5	/h/	9	45	.510	15	75	.444
6	/d□/	16	80	.410	19	95	.224
7	/k/	15	75	.444	20	100	.000
8	/l/	13	65	.489	18	90	.308
9	/m/	13	65	.489	17	85	.366
10	/n/	11	55	.510	15	75	.444
11	/p/	17	85	.366	20	100	.000
12	/r/	9	45	.510	15	75	.444
13	/s/	12	60	.503	20	100	.000
14	/t/	17	85	.366	20	100	.000
15	/v/	8	40	.503	17	85	.366
16	/w/	14	70	.470	20	100	.000
17	/y/	12	60	.503	20	100	.000
18	/z/	7	35	.489	16	80	.410
Total (360)		**229**	**63.61**	**6.955**	**323**	**89.72**	**3.631**

Scores of the pre-and post-tests of vowel sounds

Subject No. / Vowel sounds	/æ/		/ɛ/		/ɪ/		/ɔ/		/ʌ/	
	pre-test (7)	post-test (7)	pre-test (7)	post-test (7)	pre-test (8)	post-test (8)	pre-test (7)	pos-test (7)	pre-test (7)	post-test (7)
1	1	5	1	5	3	6	2	4	1	3
2	4	6	1	6	4	7	3	5	0	3
3	0	7	0	5	0	7	0	6	0	6
4	1	7	1	7	2	8	1	7	0	5
5	0	7	0	7	2	8	2	7	0	7
6	2	7	1	7	6	8	3	7	0	7
7	1	7	1	7	1	8	0	7	0	5
8	2	7	0	7	0	8	0	6	0	5
9	1	7	1	6	0	5	0	6	0	6
10	3	6	0	7	5	6	0	6	1	5
11	3	7	4	7	7	8	4	7	4	7
12	4	7	5	7	8	8	3	7	6	7
13	3	6	4	6	5	7	5	5	5	4
14	0	6	0	6	0	7	0	6	0	6
15	0	7	0	7	0	8	0	7	0	7
16	4	7	6	6	7	6	4	6	4	7
17	0	7	7	7	7	8	5	7	7	7
18	1	6	0	6	3	6	1	6	0	4
19	0	6	0	5	0	7	1	5	0	3
20	0	6	1	5	0	7	2	6	1	6
Total 360	30	131	33	126	60	143	37	123	16	110
Gained Scores	110 (30.56%)		93 (25.83%)		83 (23.06%)		86 (23.89%)		94 (26.11%)	
$\bar{X}$	1.50	6.55	1.65	6.30	3.00	7.15	1.80	6.15	1.45	5.50
SD	1.504	.605	2.231	.8	2.902	.933	1.765	.865	2.328	1.469
P - Value	0.00		0.00		0.00		0.00		0.00	

$P \leq 0.05$

Pre-and post-tests scores of initial consonant sounds with kinds of reading errors

No	Initial consonant sounds	Pre-test (n=20)	Kind of error		Post-test (n=20)	Kind of error	
			R	M		R	M
1	/b/	17	3	0	20	0	0
2	/d/	16	4	0	18	2	0
3	/f/	10	10	0	16	4	0
4	/g/	13	6	1	17	3	0
5	/h/	16	4	0	19	1	0
6	/ʤ/	9	4	7	15	2	3
7	/k/	15	5	0	20	0	0
8	/l/	13	7	0	18	2	0
9	/m/	13	7	0	17	3	0
10	/n/	11	7	2	15	5	0
11	/p/	17	3	0	20	0	0
12	/r/	9	6	5	15	4	1
13	/s/	12	8	0	20	0	0
14	/t/	17	3	0	20	0	0
15	/v/	8	6	6	17	2	1
16	/w/	14	6	0	20	0	0
17	/y/	12	6	2	20	0	0
18	/z/	7	6	7	16	3	1
Total (360)		**229**	**109**	**22**	**323**	**31**	**6**

Remarks: Kinds of error: R = Reading inability

M= Misreading / non - reading