A Pilot Study: The Impact of Phonics Instruction Application on Phonemic Awareness within Reading and Vocabulary Abilities of Elementary School English Teaching

Xin Hu¹ & Haiying Du²

¹ Xin Hu, Ph.D, Department of TESOL, Hankuk University of Foreign Studies, Korea
² Haiying Du, Foreign Language college, Shandong Vocational University of Foreign Affairs, China

Correspondence: Haiying Du, Foreign Language college, Shandong Vocational University of Foreign Affairs, China.

Received: May 4, 2023           Accepted: May 25, 2023             Online Published: May 30, 2023
doi: 10.5539/elt.v16n6p186        URL: https://doi.org/10.5539/elt.v16n6p186

Abstract
This study investigated whether phonemic awareness within vocabulary and reading abilities changed after phonics instruction. Pre-test, treatment of phonics instruction, and post-test were implemented to measure the impact of phonics instruction on English teaching in an elementary school. Fifty Chinese students who performed little English proficiency at the beginning of second grade participated in this study. This study, conducted as a pilot-study before a main one investigating two groups of experimental group and control group, had a quantitative experiment design for a group of fifty students exploring Pre-test and Post-test effects of two different conditions: phonemic awareness within vocabulary and reading abilities, respectively. SPSS 19.0 was employed in quantitative data analysis. Overall, it was proved in this pilot-study that the EFL learners who experienced phonics instruction class had more meaningful improvement and higher average scores on their vocabulary and reading abilities. From the test results and the interviews with the students and their parents, it is indicated that the EFL learners’ phonemic awareness within reading and vocabulary abilities has been increased. At pre-test, no students performed well in 1) reading short passages as a test of authentic word pronunciation and phonemic awareness in distinguishing words within monograms and 2) oral English test examining English conversation and also vocabulary recognition. At post-test, the average scores of the students with phonics instruction class were improved meaningfully by around 10% in the two different individual conditions that the ones in the Pre-test. Implications in this study are that phonics instruction would be needed for increasing phonemic awareness as well as the significance of phonics instruction in English language teaching.

Keywords: phonics instruction, phonemic awareness, reading ability, vocabulary ability

1. Introduction
The curriculum reformation of Chinese elementary school has brought new challenges to teachers, as it sets out the new teaching focus to develop a more comprehensive English reading skills of learners as well as enlarging their required vocabulary recognition. During the past century, there were several different pedagogical ways for English teaching around the world; grammar-translation method, which focuses on using grammatical rules and then apply those rules by a means of sentences translation between target and the native languages. Direct method, which was sometimes called the natural method, which involves the use of the learners’ native language, and requires teachers to use body language and target language to teach (Chomsky, 1975). Situational teaching method, which was put forward in the middle of the 19th century by British specialists, which pay attention on learners’ responses on visual and audio materials, therefore, teachers create actual situation for learners to practice different English skills by not only reading and writing but speaking and listening. The focus of teaching is like a pendulum that has swung from only teaching materials into cultivating learners’ language skills. Given that Total physical response, emerged that teachers design to make the direction by it then the learners give correct responses to show their understanding of the direction. One of its advantages through using Total Physical Response in English teaching skills is helping the students remember English words and speech sound (Rokhayati, 2017). Accordingly, phonics instruction is the combination of the empirical approaches, whose core element is speech sound (Lan Yang, 2012). Phonics instruction, as a new popularized English learning strategy,
focuses on building connection between English letters and their sounds. Here phonics instruction is sometimes defined as explicit knowledge teaching about the correlation between sound and phonetic symbols in English alphabetic system. As English is in an alphabetic system, phonics instruction mainly teaches the connection between phonetic symbols and sounds. It is also illustrated as a method of teaching students to read in which they are taught to recognize the sounds that letters represent (Podhajski, B., & Nathan, J., 2005).

With the help of phonics instruction, young learners are able to build a link between phonetic symbols and sounds of English letters. It is that the importance of each letter has its own phonetic symbol and makes a variety of sound patterns when matching with other letters. Reflectively, it has been noted that phonics instruction then was more likely to be the system of instruction used to teach children the connection between letters and sounds (Snow et al., 1998). Nevertheless, it was still argued whether an understanding of phonics instruction helps younger learners to recognize words quickly and correctly. Along with the pedagogical awareness of the correct pronunciation and intonation of the word as well as knowledge of lexicology and morphology, the EFL learners felt that forming a much larger vocabulary and an authentic pronunciation of reading seemed to be quite necessary. Thus, phonics instruction can help learners to remember the spellings with phonemic awareness and pronunciation of a word spontaneously once they grasp the phonetic symbol rules of it. And they will naturally remember all the words which implicate the same rules. On the other hand, as the EFL learners, a lack of target language in phonetic training constitutes a major drawback for literacy development. Given that oral language, once is consolidated, which provides an essential foundation for literacy development, and later, for academic reading and vocabulary learning (Bell, J., 1990). What's more, it’s considerably indicated that phonics instruction is the best taught within classroom activities. The teacher can connect phonics instruction teaching with positive transfer of learners’ L1 knowledge, which will avoid problems caused by learning International Phonetic Alphabet so as to develop learners’ English language skills as a whole.

Generally speaking, phonics instruction is a method of teaching English language by developing learners’ phonemic awareness, which is supposed to be the ability to discriminate individual sounds in spoken words as well as has an advantage for the students who are being at the initial stage to learn English, especially in improving their oral English skills. Nevertheless, the current vogue of blaming reading skills problems on phonemic awareness is reminiscent of the alarm caused by a concept of “cognitive confusion”. This is described children who also didn’t understand terms like “sentence” and “word”, as lacking of “cognitive clarity” (Downing & Leong, 1982; Downing & Oliver, 1973-1974). Lafrance and Gottardo (2005) also demonstrated that emergent reading skills including reading comprehension, spelling, and vocabulary recognition have risen after adjusting for the effects of children’s cognitive ability. For instance, Bilingual French-English children’s phonemic awareness skills of cognitive ability in both French and English were uniquely predictive of reading and vocabulary abilities in the two different languages. On the contrary, in China, the consciousness of rote memorization instruction on reading and vocabulary abilities in traditional English teaching class is regarded as a controversial means of obviating “cognitive confusion”, which is the most widely used in English learning among elementary school students, seems to be inefficient and dull. In other words, the phonics instruction application based on the Chinese EFL young learners’ phonemic awareness should build itself new way of English teaching that has to be effectively employed as getting rid of the traditional English teaching class.

The research questions guiding this study were:

(1) Whether learners’ phonemic awareness within vocabulary ability changed after applying phonics instruction?
(2) Whether learners’ phonemic awareness within reading ability changed after phonics instruction application?

Many questions remain about potential impacts on EFL learners’ language learning, such as the impacts of gender differences and the social perception of phonics instruction in China.

2. Literature Review

2.1 Previous Studies on Phonics Instruction

A.C. Gimson (1980) described that in order to speak any kind of languages, one needs to learn almost 70% of its pronunciation, 20% of its vocabulary and about 10% of its grammar. Obviously, pronunciation within phonemic awareness and vocabulary are inevitably dominant in spoken languages.

Apart from that, Ault (2011) profoundly investigated whether giving pupils phonics instruction lessons improved their reading fluency. A post-test was follow-up given after Ault had taught phonics for five weeks and administered the pre-test. The findings were not encouraging; on average, pupils read 5.8 words per minute in the post-test almost the same as what they did in the pre-test. Nonetheless, they did support reading ability regarding an improvement in reading accuracy across the board of the target group. According to the point of
view by Ault (2011), phonics instruction can assist pupils in their future reading motivation. This indicates that the pupils established a connection between each phoneme and its corresponding grapheme. Moreover, explicit phonics instruction training was employed in a research by Martinez (2011) to boost the reading and vocabulary abilities of ESL learners from Bogota, Colombia. It’s noted that the phonics instruction had the improvement on reading skills in the English as a second language, including reading comprehension, spelling and vocabulary recognition, and effective verb tenses while making written assertions. Meanwhile, the pupils continuously demonstrated their abilities to read and write in Spanish (L1). Besides, they established the fundamental diagraph in English (L2), which is the combination of two sounds as /θ/ /ð/ /ʃ/ /tʃ/ as well as short and long vowels. It was discovered that reading comprehension in EFL pupils was indeed improved by explicit phonics instruction training. Ellis (2005) explicitly stated that L2 achievement leads to regulated motivation. Students who succeed in their language studies could become more driven to learn. According to Martinez (2011), phonics instruction allows students to better decode and pronounce an English word, which is able to be translated into better understanding of what is being read, and truly increases their reading comprehension ability. Additionally, Lizzy (2006) discussed that phonics instruction can help EFL students to improve their listening and speaking skills, together with their pronunciation and intonation. She defined phonics instruction as the following:

Phonics instruction is also called as direct phonics instruction. It is the method that let students grasp the spelling rule of vowels, consonants and the pronounce rule of letters and then can speak and write words exactly without the help of phonetic symbol. (Lizzy, 2006).

From her perspective, phonics instruction has four main parts of theoretical basis: linguistic basis, pedagogical basis, motivation basis and intelligence basis. She gave detailed analysis for each part. On linguistic basis, she pointed out that the all kinds of language are formed with different phonemes, especially in English. With these phonemes, thousands of words and phrases can be produced. Only if learners learned enough phonemic combinations and mastered the word patterns, they could have recognized most words and their pronunciation. On pedagogic basis, Lizzy (2006) clarified that during the course of teaching English words, phonics instruction makes use of the positive benefits of Chinese-phonic transfer on academic skills. Moreover, she also referred the statement in psychology that the level of students’ former experience would impact his process of learning a new language. On motivation basis, just as talked earlier, she believed that motivation gives positive influence in one’s learning process as a virtuous circle is to be formed. As for intelligence basis, Ellis (2005) further argued that all senses of students would be aroused by using phonics instruction, such as listening, speaking, reading, touching, and acting, which are closely associated with improving their learning abilities and intelligence. Other researchers mostly agreed on her point and discovered phonics instruction as one of English language instructions not only for EFL learners but for young native speakers. Refer to the previous studies on EFL learners’ literacy ability enhancement by phonics instruction, it has been proved that it works similarly on English-speaking students learning better in especially literacy (Saskia de Graeff, Anna M.T. Bosman, Fred Hasselman, and Ludo Verhoeven, 2009). In sum, phonics instruction lays a foundation as the young EFL or English-speaking learners intentionally improve their language abilities.

2.2 Previous Studies on Phonemic Awareness

Understanding the words that are made up of many sounds is known as phonological awareness (PA), which is frequently demonstrated in one’s capacity to manipulate segment various sound units of the words, such as syllable, phoneme, and rhyme. Phonemic awareness is an important predictor of young EFL learners‘ acquisition of reading skills in a variety of languages, which has been demonstrated by the studies in the past (Adams, 1990; Bryant, MacLean., & Bradley, 1990; Cronin & Carver, 1998; Goswami & Bryant, 1990; MacLean, Bryant, & Bradley, 1987; Stanovich, 1992; Stanovich & Siegel, 1994; Vellutino & Scanlon, 2001; Wagner et al., 1997). The studies researched on the connection between phonemic awareness and reading skills development. As for monolingual kids, they have found varying degrees of PA’s predictive power in various phonological units, especially on reading skills, and they have emphasized PA as the strongest and most trustworthy predictor of reading and vocabulary abilities (Bowers, 1995; Bowers & Wolf, 1993; Mann, 1984; Wagner et al., 1994).

In addition, it was being aware that proper phonics instruction training assists in children’s phonemic awareness development, which subsequently rises in the development of the abilities like vocabulary and reading comprehension. Further research shows when phonemic awareness is promoted, English language learners (ELLs) exhibit improvement in their literacy ability. Despite the Spanish-speaking kindergarten pupils were employed in Walter’s (2010) research, however, due to their limited exposure to English use at home or at school, the majority of them had limitation in the second language learning. Another test was administered to see whether the students’ second-language reading skills had improved after teaching on how to illustrate phonemic awareness through engaging activities. The result of the study demonstrated that the pupils whose native
language is similar to English, such as Spanish, by emphasizing English phonemic awareness, are not absent from their mother tongue, which was crucial to maximizing reading skills acquisition. Therefore, the EFL learners demonstrated a development in their writing and reading skills as well as a fruitful outcome in the learning of new vocabulary in the second language (Walter, 2010). Ehri, Nunes, Stahl, & Willows (2001) did a comprehensive research on systematic phonics instruction on phonemic awareness and then found out that it is proved to be more effective than non-systematic phonics instruction in EFL learners including synthetic phonics instruction, analytic phonics instruction, embedded phonics instruction, analogy phonics instruction, and phonics instruction- through -spelling. In the process of systematic phonics instruction on phonemic awareness: 1). Synthetic phonics instruction mainly teaches students to identify the sound of each letter and then puts them together to form a word in order that the pronunciation of the word will come out by putting each letter’s pronunciation together (i.e. /h/, /i/, /t/ phonemes makeup of the word /hit/). 2). Analytic phonics instruction makes students to be aware that certain words may share sound segments by letters combination in sets of words (i.e. “cat”, “rat”, “fat”, and “hat”). 3). Embedded phonics instruction refers to the spelling pattern that may appear in a predictable context (i.e. /–at/, /-am/, /-ad/, and /-an/). 4). Analogy phonics instruction requires students to identify new words that share the similarities with the words they have already learned (i.e. fat-hat, rat-cat). 5). Refer to phonics instruction-through-spelling, students are taught to be able to divide the given word into different phonemes and write them down. In spite of it, the majority of the research demonstrates the transfer of phonemic awareness within reading and writing abilities between two different languages by alphabetic comparison. Not as much is known in China about whether phonemic awareness within reading and vocabulary abilities changed after phonics instruction application. Thus, the aim of the study investigates to find to whether phonemic awareness within vocabulary and reading abilities changed after applying phonics instruction as well as to explore the potential impacts of phonics instruction on EFL learners’ English learning.

3. Methods

3.1 Participants

Fifty students in Grade Two, from an affiliated elementary school of a university in Shandong Province of China, enrolled in the pilot study. Purposive sampling was conducted to recruit participants according to convenience and availability. The criterion for the pilot study was that the students had previously studied traditional compulsory courses of English at school.

Every participant is eligible for this pilot study on account of that they are all EFL learners in China with limited English proficiency. The average age of these students is seven, and their English learning history is depicted in tables 1 and 2 below. The whole experiment will take one semester, which is from September, 2022 to January 11th, 2023.

Table 1. Learning Background Status of Participants

<table>
<thead>
<tr>
<th>Group Participants</th>
<th>Never</th>
<th>Less than half a year</th>
<th>Half a year to one year</th>
<th>One year to two years</th>
<th>More than two years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>13</td>
<td>36</td>
</tr>
</tbody>
</table>

Table 2. Different Approaches of Participants’ English Learning Background

<table>
<thead>
<tr>
<th>Approaches</th>
<th>HL</th>
<th>LK</th>
<th>LFG</th>
<th>LTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Participants</td>
<td>0</td>
<td>36</td>
<td>13</td>
<td>1</td>
</tr>
</tbody>
</table>

(Note: HL stands for home learning. LK stands for learning since Kindergarten. LFG stands for learning since first grade. LTC stands for learning in tutorial class)
3.2 Procedure

The pilot study lasts eighteen weeks. In China, an English class lasts approximately 45 minutes. Each class was taught in two stages by phonics instruction within phonemic awareness within reading and vocabulary abilities training. On the first stage, letters pronunciation teaching, in which the EFL learners studied the pronunciation from each letter and then practiced them in regular monogram, which lasted for twenty minutes. Afterwards, on the second stage, the rest twenty-five minutes was left for the practice with short reading passages, twice a week.

As for teaching contents of practice with short reading passages at elementary schools in China, the teachers generally present short reading passages from school exercise books, in which the young EFL learners learned to recognize the pronunciation of the new vocabularies based on the monograms and their meanings.

According to the phonics instruction materials in the procedure, the EFL learners acquired the pronunciation of English consonants from the first to the third week. It was a preparatory task for the upcoming vowels teaching. During the fourth to the eighth week, the students learned how to pronounce vowels in accented closed syllables (/æ/, /i/, /ɒ/, /ʌ/ and /e/) from the ninth to twelfth week, students studied how to pronounce vowels in accented closed syllables (/æ/, /i/, /ɒ/, /ʌ/ and /e/). During the fourteenth through the seventeenth week, the students learned about monogram pairings. Because of their simplicity, R-controlled vowels followed by the order of /ar/, /or/, /er/, and /ur/ & /ir/ (/ur/ and /ir/ form the same sound in words) are used to teach. In the eighteenth week, which was the last week of this pilot study, they had a review about what has been covered during this semester.

In order to collect the effective data and apply phonics instruction successfully to the target young EFL learners, each step of the pilot study should be taken into consideration, such as teaching schedule, classroom activities, and teaching materials, etc. The procedure of this experiment is shown below in Figure 1.

3.2.1 Teaching Schedule

As mentioned in the above sections, teaching schedule at every class with phonics instruction treatment within phonemic awareness and short reading passages training is shown in following table.

<table>
<thead>
<tr>
<th>Week</th>
<th>1st Stage of Class (20minutes)</th>
<th>2nd Stage of Class (25minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 01-03</td>
<td>Consonants pronunciation</td>
<td>Consonants pronunciation</td>
</tr>
<tr>
<td>Week 04</td>
<td>Letter “/a/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 05</td>
<td>Letter “/i/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 06</td>
<td>Letter “/o/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 07</td>
<td>Letter “/u/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 08</td>
<td>Letter “/e/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 09</td>
<td>Letter “/a/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 10</td>
<td>Letter “/i/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 11</td>
<td>Letter “/o/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 12</td>
<td>Letter “/u/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 13</td>
<td>Letter “/e/” in accented closed syllable</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 14</td>
<td>R-controlled vowel: /ar/</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 15</td>
<td>R-controlled vowel: /or/</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 16</td>
<td>R-controlled vowel: /er/</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 17</td>
<td>R-controlled vowel: /ur/ &amp; /ir/</td>
<td>Practice with short reading passages</td>
</tr>
<tr>
<td>Week 18</td>
<td>Review</td>
<td>Review</td>
</tr>
</tbody>
</table>
3.2.2 Classroom Activities

There were two courses per week about phonics instruction within phonemic awareness within reading and vocabulary abilities training. The first stage of the class would be letters pronunciation, in which the EFL students would study the pronunciation of each letter and then practice it in a regular monogram. The teacher devised several amusing activities for the students to practice their phonemic awareness. For example, in the "Who am I?" game, students had to listen carefully and selected the correct vowel from three options. The "Where Should I Be" game required students to pay close attention and put the correct vowel into the word box where the missing vowel was located. The 2nd stage of the class was demonstrated as the practice with short reading passages, in which the EFL learners learned to recognize the pronunciation of the new vocabularies based on the monograms and their meanings. The main purpose of these instructions is to help learners build up the connection between acoustic and visual English phonetic materials as well as enhancing their phonemic awareness within reading and vocabulary abilities by phonics instruction application.

3.2.3 Phonics Instruction Teaching Material

The flipped board, letter books, and Grade-2 English short reading exercise books were used in phonics instruction class to make learning entertaining for the students. The phonics instruction teaching plan (Appendix 2) for the experiment process were prepared by professional instructors who have been working in the phonics instruction field for over ten years. For eighteen weeks, each unit had eighteen units. The readings and exercises were typically created for students who enrolled in phonics instruction classes.

3.3 Data Collection

A quantitative method has been employed in the study and the data collected were collected from the three parts including pre-test, the treatment of phonics instruction, and post-test, which are analyzed by SPSS 19.0. Paired Samples Tests and Generalized Linear Modals (GLM) have been drawn which are pivotal to ultimate data analysis. These tests are used to predetermine the attitudes of students and their parents towards phonics instruction as well as to compare the impact of phonics instruction application on the EFL learners' performance between Pre-test and Post-test.

4. Findings

4.1 Pre-test

Before applying phonics instruction into this school, the fifty students and their parents were asked to participate into doing questionnaire (Appendix 1). As Snow et al., (1998) put the address previously, the pre-test contains two parts: the first part is a questionnaire to students and their parents for getting their opinions that were concerned with phonics instruction used in English class. For example, 1) Have you ever thought about yourself or your children will have more authentic pronunciation and phonemic awareness with spelling words and distinguishing from words after phonics instruction training? 2) Do you approve yourself or your children of promoting the English reading ability after phonics instruction? 3) Have you ever realized yourself or your children of recognizing more vocabulary after phonics instruction? The second part is two formal pre-tests were taken to the students in terms of 1) short reading passages test with 100 as total score that mainly focused on authentic words pronunciation and phonemic awareness in distinguishing from words with monograms and vocabulary recognition 2) oral English test with 20 as total score, that mainly emphasized on English conversation and also vocabulary use. Table 4 and Table 5 are shown based on the questionnaire to the students and their parents. Fifty students and their parents took the questionnaire. Forty-five questionnaires were proved to be effective. Table 4 is Paired Samples Test. Table 5 is Generalized Linear Model (GLM) of Paired Samples. By analyzing these two tables, their attitudes toward phonics instruction teaching are demonstrated as below.

Table 4. Paired Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Number</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>20.600</td>
<td>10</td>
<td>12.62439</td>
<td>3.99211</td>
</tr>
<tr>
<td>Yes No</td>
<td>24.400</td>
<td>10</td>
<td>12.62449</td>
<td>3.99221</td>
</tr>
</tbody>
</table>
Table 5. Generalized Linear Model (GLM) of Paired Samples

<table>
<thead>
<tr>
<th>Paired Difference</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes-No</td>
<td>-3.800</td>
<td>25.24898</td>
<td>7.98443</td>
<td>-21.86</td>
<td>14.26</td>
<td>-.47</td>
</tr>
</tbody>
</table>

The Mean of positive responses in Table 4 is (M=20.600). Whereas the Mean of negative responses is (M=24.400). The number of those who answered negatively outnumbers those who answered positively. The result of this questionnaire was not positive, indicating that they were not in favor of phonics instruction. Table 5 contains more specific and correct information regarding the questionnaire. In the Table 5, (Sig.=0.645), which is significantly greater than 0.05. This signifies that most respondents strongly disagree with phonics instruction that led to this pragmatic result. The reason for the outcome is complicated. Initially, most respondents had never heard of phonics instruction. They were skeptical of the efficiency of phonics instruction due to their lack of information about it. Furthermore, they questioned the link between phonics instruction and English language learning. Secondly, most of respondents believed that the exam-oriented English language learning is still dominated educational trend in China but is not phonics instruction. The finding indicates that the application of phonics instruction in China seems to be a quite difficult task to carry out.

4.2 Post-test

The post-test contained two parts as the same as the form of pre-test, one was short reading passages test with 100 as total score and the other was an oral English test with 20 as a total score. The individual student in the post-test has the same test paper, which made the test score impartial and referential. According to the statement (Bowers, 1995; Bowers & Wolf, 1993; Mann, 1984; Wagner et al., 1994), the short reading passages test mainly focused on authentic words pronunciation and phonemic awareness in distinguishing from words with monograms and vocabulary recognition, while the oral English test mainly emphasized on English conversation and vocabulary use.

4.3 Pre-test & Post-test

Table 6, Table 7 and Table 8 are all based on the relationship between pre-test and post-test scores of the students in phonics instruction class. Table 6 is paired samples test; Table 7 is paired samples correction coefficient and Table 8 is paired samples t-test.

Table 6. Paired Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair</td>
<td>115.800</td>
<td>25</td>
<td>4.48144</td>
<td>.89629</td>
</tr>
<tr>
<td>Post-t</td>
<td>91.200</td>
<td>25</td>
<td>11.03026</td>
<td>2.20605</td>
</tr>
</tbody>
</table>

The different standard deviations of Pre-test and Post-test in Table 6 show that the research data is valid. According to the statistical data of this table, the Std. deviation of Post-test is (SD=4.48144), while the Std. deviation of Pre-test is (SD= 11.03026). Pre-test’s deviation is much bigger that Post-test’s, which means that Post-test learners’ improvement on the overall phonemic awareness within reading and vocabulary abilities is increased meaningfully than the ones’ in the Pre-test, which represents a strong evidence to prove that phonics instruction did have affirmative and positive effects on young EFL learners In other words, the outcome are proved to be correlated with the previous studies on EFL learners’ literacy ability enhancement by phonics instruction (Saskia de Graeff, Anna M.T. Bosman, Fred Hasselman, and Ludo Verhoeven, 2009). In accordance with the Mean in Table 6, the students’ test performance shows that implementing phonics instruction affects their test score significantly, by around 10% in phonemic awareness within the short reading passages and oral English test, respectively.
Table 7. Paired Samples Correlation Coefficient

<table>
<thead>
<tr>
<th>Pair</th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-t &amp; Pre-t</td>
<td>25</td>
<td>.947</td>
<td>.013</td>
</tr>
</tbody>
</table>

Table 8. Generalized Linear Model (GLM) of Paired Samples

<table>
<thead>
<tr>
<th>Paired Difference</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error of the Mean</th>
<th>95% Confidence interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-t &amp; Pre-t</td>
<td>24.6000</td>
<td>6.93421</td>
<td>1.38684</td>
<td>21.73 - 27.46</td>
<td>17.7</td>
<td>24</td>
<td>.013</td>
</tr>
</tbody>
</table>

Table 7 and Table 8 offer more evidences with the effectiveness. In Table 8, clarifies the criteria of the 95% confidence interval in Generalized Linear Model (GLM) of Paired Samples and in Table 7, Sig. is (Sig. =0.013), which is smaller than 0.05, all mean that the reliability of the study is accepted.

Based on the short reading passages test of Table 9 and oral English test data of Table 10, Pre-test and Post-test show great differences between each other in the pilot study below.

Table 9. Short Reading Passages Test

<table>
<thead>
<tr>
<th>Score Test</th>
<th>100~99</th>
<th>99~98</th>
<th>98~97</th>
<th>96~95</th>
<th>95~94</th>
<th>93~92</th>
<th>92~91</th>
<th>91~90</th>
<th>&lt;89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-t</td>
<td>9</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Pre-t</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Average (Post-t)</td>
<td>96.56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average (Pre-t)</td>
<td>80.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10. Oral English Test

<table>
<thead>
<tr>
<th>Score Test</th>
<th>20~19</th>
<th>19~18</th>
<th>18~17</th>
<th>16~15</th>
<th>15~14</th>
<th>13~12</th>
<th>12~11</th>
<th>11~10</th>
<th>&lt;10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-t</td>
<td>18</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pre-t</td>
<td>0</td>
<td>5</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Average (Post-t)</td>
<td>19.24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average (Pre-t)</td>
<td>10.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the Post-test of Table 9, nine learners got 100. None of their scores is below 90. All of the learners’ scores were above 90. The average score of Post-test is 96.56. In contrast, in the Pre-test, one learner got 98. Fifteen learners’ score are below 90, with the lowest score of 70. The average score of this group is 80.76. It is shown that the students in Pre-test are generally lack of phonemic awareness in authentic words pronunciation and phonemic awareness in distinguishing from words with monograms and vocabulary recognition, which are much lower that Post-test students. It is further probed as similarly as what the study accounted for in Walter’s (2010). As for oral English test, in the Post-test of Table 10, some students got full scores in oral test, and the lowest score they got is 17.5. None of them got 0 in this part. The average score of Post-test is 19.24. Eighteen of the students were above this average level. However, the situation of Pre-test is much more serious. With twenty-five students of Pre-test, the highest score they got is 18.5, and six of them got 0. The average score of Pre-test is only 10.44. Fourteen of the students were above this level, with only five of them got higher score
than 18. It is also demonstrated that in the pre-test, the pupils lacked of English reading abilities as a result of their long-term exposure to traditional English classes at school, and the majority of their vocabulary was learned only from short reading passages in school textbooks. They were too shy to speak with the interviewers in English. Even some of them were too timid to speak in English. If the question was the same as one from a school textbook passage, some of them would be able to give the proper answers right away. It would take a short period of time to provide responses if the main words of the short paragraphs in the textbook were substituted with other words they have already learnt. If more than one word that have been replaced, the learners would not give any response. In accordance with the elaborated research from Ehri, Nunes, Stahl, & Willows (2001), this pilot study has successfully proved that phonics instruction can affirmatively help EFL learners develop and improve phonemic awareness within reading and vocabulary abilities.

5. Conclusion

5.1 Phonics Instruction Application Related to Research Questions

5.1.1 Improvement on EFL Learners’ Phonemic Awareness within Vocabulary Recognition Ability

The young EFL learners achieved an increase meaningfully in their vocabulary recognition ability. Many students gradually realized that phonics instruction indeed improved their English learning abilities in the pilot study. Students felt confidence in memorizing vocabulary through phonics instruction treatment because it is beneficial for children to remember the spelling of a word as well as its sounds. The short reading passages in phonics training class were all rhymed, to make reading enjoyable and memorable. It is easier for students to remember not only the authentic words pronunciation and spelling, but the meaning of the words when they perform their movement alongside reading. By comparing the average scores between pre-test and post-test of the young EFL learners whose vocabulary ability of recognizing and pronouncing new words was increased meaningfully by around 10%. It is also found that they got a better performance in oral English test as well. Not only did they better on pronunciation and reading short passages, they also memorized more new words within the phonemic awareness involved.

5.1.2 Enhancement on EFL Learners’ Phonemic Awareness within Reading Ability

It is noticed in the results that their phonemic awareness has been facilitated meaningfully in authentic pronunciation of vocabulary and distinguishing from vocabulary with monograms in reading materials. Besides, they have developed their reading ability to some extent. Through giving the EFL learners short reading passages within phonics instruction, they showed steadily more improvement on their reading ability after phonics instruction treatment. By comparing the average score of Pre-test with Post-test on the young EFL learners who are able to distinguish from words with monograms and speak authentic pronunciation of words is also risen higher by around 10%. Therefore, the young EFL learners emerged better authentic pronunciation of the words and higher proficiency on vocabulary recognition when reading short passages.

5.1.3 Phonics Instruction Influence on Phonemic Awareness

The difference of the young EFL learners’ pronunciation on letters and monogram is obvious. Before implementing phonics instruction treatment, in the Pre-test they showed terribly in short reading passages test. Their drawbacks were mainly caused by their lack of vocabulary recognition ability and authentic pronunciation of words when reading. They were especially unconfident when the test materials they did not learn before. After Post-test, the ability of phonemic awareness was developed in distinguishing from words with monograms as well as the meaning of vocabulary, the outcome changed prominently. The learners in the Post-test acted more sensitive to the sound of letters and words.

5.2 The Potential Impacts of Phonics Instruction Application on EFL learners’ Gender Differences and Social Perception

5.2.1 The Potential Impact on Gender Differences

It has been noticed that there was gender difference in young EFL learners’ English learning with phonics instruction. Girls were more proactive and enthusiastic in phonics instruction class than boys by class observation. When teaching a new phoneme of one pair of monogram, the girls were usually more excited in finding rules, guessing the pronunciation and reading new words. It has been observed that more girls than boys were good at pronunciation and spelling on vocabulary recognition. Also, they were better in reading new words and short reading passages. However, because of the lack of confirmed data, it is hard to determine whether the gender difference in phonics instruction learning is a kind of interference.
5.2.2 The Potential Impact on Social Perception of Students and Their Parents

It was clearly shown that the students’ parents held negative attitudes toward phonics instruction due to their lack of phonics instruction knowledge about it. However, some of them changed their attitudes a lot after the result of Post-test presented. Their parents have seen these changes, together with the improvement of the phonemic awareness within reading and vocabulary abilities as well as their self-confidence. With these changes, their parents were highly positive about phonics instruction. They believed that these great changes will also have strong impact on Chinese English Education. Accordingly, the lagging of developing one’s phonemic awareness will lead to the delay of reading and vocabulary abilities development. In a word, phonics instruction needs to be considerably applied in early age, which is definitely significantly urgent for the young EFL learners in China.

5.3 Limitations & Implications

In the pilot study, it is meaningful for elementary school English teachers to use phonics instruction pragmatically on their English teaching. According to the size of the participants, there were only 50 participates took part in. Obviously, if it was made in a larger sample size, it would have made the result more reliable and persuasive. In addition, the pilot study of phonics instruction just lasted for 18 weeks. Due to the insufficient communication with the teachers and the students’ parents, it is uncertain whether learners are still about to exercise phonics instruction out of classroom. If the procedure of phonics instruction lasted longer, the teachers and parents would have been fully aware of the significance on phonics instruction. Implications in this study are that phonics instruction would be needed for increasing phonemic awareness as well as the significance of phonics instruction in English language teaching.

Acknowledgment

I’d like to offer my heartfelt gratitude to everyone who has supported and helped me throughout the course of the pilot study. First and foremost, I would like to express my gratitude to my advisors, Professor Kilryoung Lee of the TESOL Department at Hankuk University of Foreign Studies in Korea, Professor Haiying Du of Applied English Department at Shandong University of Foreign Affairs, and Dr. Dingkun Li of the Big Data Analysis Center of Karamay Central Hospital in Xinjiang, China. They taught me the ins and outs of English Educational research methodology and nurtured my interest in the pilot study data for collecting and analysis, both of which I could greatly benefit from. Aside from them, I’d want to thank my dear friends Chao Liu and Lisha Xu, two female college lecturers who worked as Applied English teachers at Shandong University of Foreign Affairs in China.

References


Bell, J. (Ed.) (1990). ESL literacy. [Special Issue of TESL Talk, 20].


Appendix A

Questionnaire

(1) Do you agree on the importance of four fundamental English skills to the 21st century such as Listening, Speaking, reading and writing?
A: Yes                                        B: No

(2) Do you endorse the necessary of opening an oral English class on Grade 2?
A: Yes                                        B: No

(3) Have you ever heard Phonics Instruction before?
A: Yes                                        B: No

(4) Do you want or your children to accept Phonics Instruction training in English class?
A: Yes                                        B: No

(5) Do you believe yourself or your children will have stronger vocabulary ability after Phonics Instruction training?
A: Yes                                        B: No

(6) Have you ever thought about yourself or your children will have more authentic pronunciation and phonemic awareness with spelling words and distinguishing from words after Phonics Instruction training?
A: Yes                                        B: No

(7) Have you ever considered of yourself or your children will promote the oral English ability after Phonics Instruction training?
A: Yes                                        B: No

(8) Do you approve yourself or your children of promoting the English reading ability after Phonics Instruction?
A: Yes                                        B: No

(9) Have you ever realized yourself or your children of recognizing more vocabulary after Phonics Instruction?
A: Yes                                        B: No

(10) Do you trust Phonics Instruction will be widely introduced to more and more EFL learners in China if it’s proved to be positive effects on phonemic awareness within reading and vocabulary abilities?
A: Yes                                        B: No
Appendix B
An Example of Teaching Plan
Objectives:
(1) To grasp the pronunciation of letter “a” in accented closed syllable
(2) To recognize words with letter “a” in accented closed syllable in short reading passages

Teaching Aids:
(1) A computer to play PPT
(2) Flipping board and scripts with letters in small boxes.
(3) Word cards and Grade 2 exercise books

Time: 25 minutes

Procedure: The lesson plan is illustrated in the following steps:

(1) Greetings: The teacher starts the class by saying “Hello” and “Good morning”, which intends to help the EFL learners to form a good manner. It also can form an environment for learning - 2 minutes.

(2) Warm-up Activities: The teacher plays the first page of the designed PPT. On the screen, the students will see many words and then they are encouraged to find out the similarity of these words, such as the words all share a letter a with the phoneme “/ae/” (the word list is: dad, mad, tap, rap, fat, cat, man, can, jam, jag, bag.) - 3 minutes.

(3) Phonics instruction: The teacher keeps playing the rest of the designed PPT to teach the pronunciation of letter “a” in accented closed syllable. It is pronounced as the phoneme /ae/. The teacher helps the learners to practice this pronunciation by asking them to open their mouth as big as possible in an exaggerated way. By doing this, the EFL learners’ enthusiasm will be aroused and their impression on the pronunciation will be enhanced - 7 minutes.

(4) Reading the word list on flipping board: The teacher divides the EFL learners into five groups. Each group will race which is the first group to finish reading the word list on the flipped board. There are three tables on the flipping board. The 1st table contains all the consonants. The second table contains letter “a”. The last table contains consonants d, t, p, g, m, and n. In each table, different words with the same phonemic rule will be confirmed by the teacher. Then the students in each group will compete with other groups to read them authentically and say out the meanings of the words.

(5) Scrabble game: The teacher gives each group three boxes with the scripts with twenty-six letters selected from short reading passages in their exercise books. By guiding the EFL learners to pick up a script with letter “a” and put them in the middle of the desk. The teacher will read some words one by one. All the words contain letter “a”, pronounced phonemic /ae/. Each word will be read by three times. Then the learners will try to spell what they hear in using different consonants. The game will help them build connection between acoustic phonemic information with visual materials. It is also a review of today’s course. – 5 minutes.

Copyrights
Copyright for this article is retained by the author(s), with first publication rights granted to the journal.
This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).