

An Application Study on the Phonics in English Vocabulary Teaching for Chinese Primary Schools

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Abstract. Based on the new National English Curriculum Standard, Chinese students are required to master 600-700 words in primary schools, as well as spell simple words according to pronunciation rules. In order to reach that goal, phonics is widely used in many primary schools. In view of this, the study aims to explore how phonics is used in English vocabulary teaching. By experimental study, tests and questionnaire, it finds that students' phonological and phonemic awareness, learning interest, word spelling and pronouncing ability can be effectively improved by phonics. In view of this, this study tries to seek effective methods of English vocabulary teaching on the basis on phonics.

Introduction

There is no doubt that vocabulary is the base of English learning. A rich vocabulary has obvious benefits for English reading, writing and speaking. Looking at the English vocabulary teaching in mainland China over the years, we can easily find that most students in Chinese primary school are required to learn English vocabulary by memorizing individual letters mechanically. This traditional teaching method neglects the internal relationship between sounds and letters, which prevents pupils from spelling, reading and memorizing English words successfully. In addition, rote memorization by division of sound, form and meaning will make students' memory of words blur gradually with time and it will reduce students' learning interest in the long run.

What's more, it's clearly elaborated in the Level-2 requirements of National English Curriculum Standard that "students in primary school should be able to grasp 600-700 words and pronounce simple words according to the spelling rules" [1]. In order to meet the requirements of new curriculum standard, some primary schools in mainland China decide to reform and replace the traditional vocabulary teaching method with phonics.

Phonics is an advanced teaching method of English language introduced from foreign countries. It aims at developing learners' phonemic awareness (the ability to hear, identify, and manipulate phonemes) by teaching the correspondence between these sounds and the spelling patterns (graphemes) that represent them. The goal of phonics is to enable beginning readers to decode new written words by sounding them out, or, in phonics terms, blending the sound-spelling patterns. So since the turn of the 20th century, phonics has been widely used in primary education and in teaching literacy throughout the English-speaking world [2].

Method

Research Questions. The study will largely be a quantitative and qualitative one. By teaching experiment, test and questionnaire, this study aims to seek answers to the following two questions: (1) Can students improve their phonological and phonemic awareness, word pronunciation and spelling ability through phonics? (2) Can students increase their interests in English vocabulary learning through phonics? What's more, this study hopes to provide some suggestions for further English vocabulary teaching.

Participants. This experiment was conducted in Qunxing Art Primary School which was located in a famous city of southwest China. We chose eighty students from different two classes

(experimental class and control class) of grade five as participants. They have learnt English for two years and been accustomed to memorize words by alphabet. Rote memorization made them difficult to read words by phonics, and their reading and spelling proficiency were low.

Research Procedures. The procedure of this research consisted of four steps.

First step was pre-test about word spelling and pronouncing, which was given to all the students (both experimental class and control class) at the very beginning of new semester.

The second step was experimental study lasted for the whole semester in experimental class, while traditional vocabulary teaching method was still applied in the control class. In experimental class, researcher first explained the basic knowledge of phonogram and introduced single phonogram and multiple phonogram. In order to ensure that students could pronounce the sound of the letter instead of the name of the letter when they saw letters or letter combinations, lots of exercises were done in this part. Then, researcher would help students to do spelling practices until they grasped the spelling rules of phonics. These spelling practices included (1) spelling double letters (vowel + consonant or consonant + vowel), such as a-t, at; i-s, is; n-o, no; (2) spelling triple letters (consonant + vowel +consonant), such as d-a-d, dad; h-a-t, hat; f-u-n, fun; s-u-n, sun; (3) spelling multiple letters, such as ta-ble, Table; tea-cher, teacher; com-pu-ter, computer [3]. Last, students were required to finish letters discrimination and writing under the instruction of researcher. During the process of experimental study, researcher created active and lively atmosphere in classroom by different teaching methods to help students take initiative in English learning of phonics. By doing this, it was hoped to consolidate students' perception of phonics and enhance their phonological awareness and learning interests, and then improve their spelling skills.

Third step was post-test. At the end of semester, all students from two classes were required to finish a post-test which had the same question styles and difficulty as pre-test. The results of two tests could be used to compare and testify the effectiveness of this experiment.

Last step was questionnaires which were designed to investigate participants' attitudes and interests to phonics, and their personal opinions about the new vocabulary teaching method.

Analysis and Discussion

Data Analysis of Tests.

Table 1 Statistics of Pre-test

Score (20')	20-17		16-13		Below 12		Pass Rate	Average Score
	Num.	Ratio	Num.	Ratio	Num.	Ratio		
Experimental	2	5%	30	75%	8	20%	80%	14.35
Control	3	7.5%	28	70%	9	22.5%	77.5%	14.15

Forty students in each class take part in the pre-test respectively. From Table 1, thirty-two students from experimental class passed the pre-test with 80% pass rate. While in control class, thirty-one students passed the test with 77.5% pass rate. The average score of experimental class is 14.35 which is quite similar to that of control class (14.15). To some extent, we can confirm that no great differences about preliminary English level between students in experimental class and those in control class.

Table 2 Independent Sample T-test of Pre-test

	Equality of Variance				T-test for Equality of Means				
	F	Sig.	t	df	Sig.	Mean Value Difference Value	Standard Error Value	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.596	.443	.425	77	.672	.20897	.49201	-.77074	1.18869
Equal variances not assumed			.426	75.483	.672	.20897	.49096	-.76896	1.18691

In order to verify the conclusion which we draw from Table 3-1, it is worthy of using a more scientific method to analyze the data. By SPSS, an independent sample t-test of pre-test is made. As Table 2 shown, Sig. in Levene's Test for Equality of variances is 0.443 which is less than 0.5. It proves that the variances of experimental class and control class are equal. From the results of T-test for Equality of Means, Sig. is 0.672, more than 0.05, which means there is no obvious difference about students' English level at the present stage between experimental class and control class. According to the above analysis, students in two classes can be chosen as the objects in the experiment study, because of their similar English level.

Table 3 Statistics of Post-test

Score (20')	20-17		16-13		Below 12		Pass Rate	Average Score
	Num.	Ratio	Num.	Ratio	Num.	Ratio		
Experimental	17	42.5%	21	52.5%	2	95%	95%	16.85
Control	5	12.5%	26	65%	9	22.5%	77.5%	14.42

Eighteen weeks later, a post-test is given to all the students for the purpose of comparing their abilities of words spelling and pronouncing. It can be seen from Table 3, the number of students who pass the post-test in experimental class is 38 with only 2 students failing. The pass rate is 95% and average score is 16.85. While in control class, 31 students pass the test with pass rate of only 77.5% and average score is 14.42. It is obvious that the gap between two classes is becoming wider than before.

In addition, by comparing the results of post-test with those of pre-test, it is easy to find that the pass rate of post-test is much higher in experimental class than pre-test. But pass rate in control class remains unchanged. It illustrates that students do make great progress in phonological awareness, English words spelling and pronouncing after systematic study of phonics.

Table 4 Independent Sample T-test of Post-test

	Equality of Variance		T-test for Equality of Means						
	F	Sig.	t	df	Sig.	Mean Value Difference Value	Standard Error Value	95% Confidence Interval of the Difference Lower Upper	
Equal variances assumed	.002	.962	5.578	78	.000	2.45200	.43477	1.55945	3.29055
Equal variances not assumed			5.578	77.990	.000	2.45200	.43477	1.55944	3.29056

Analyzed by SPSS, as shown in Table 4, Sig. in T-test for Equality of Means is 0.000 which is less than 0.05. It indicates that big difference on English level exists among students from different classes.

Results of Questionnaires.

Table 5 Statistics of Questionnaires about Vocabulary Learning Interests

Interest	Highest		High		Low		Lowest	
	Num.	Ratio	Num.	Ratio	Num.	Ratio	Num.	Ratio
Experimental	21	52.5%	12	30%	5	12.5%	2	5%
Control	12	30%	14	35%	11	27.5%	2	7.5%

After post-test, all students in experimental class and control class are required to fill out questionnaires. The questionnaire covers several questions about English vocabulary learning interests, learning methods, learning habits and personal opinions on vocabulary teaching.

Based on the valid questionnaires collected, we find that in experimental class, most students show their interest in vocabulary learning. The proportion is as high as 82.5% (see Table 5). Only 7 students in this class indicate that they have low or even lowest interests in vocabulary learning. However, about 65% of students in control class feel that vocabulary learning is interesting, while more than 30 % of students feel the complete opposite. 13 students in that class think that learning vocabulary is boring and they don't have any interests in it.

According to the above analysis, we can draw the conclusion that by applying phonics method in experimental class, students' learning interests in vocabulary are obviously improved.

Major Findings

In the first place, phonics can help students raise phonological and phonemic awareness. Through the study lasted for eighteen weeks, students learnt pronouncing rules of letters and letters combinations. They knew how to split the word based on its syllable and also understood how to combine phonemes to pronounce the new word correctly. This finding is in line with Chen Yingjuan's[4] opinion that phonics plays an important role in improving learners' phonological awareness.

What's more, by comparing with rote memorization, phonics can help students improve words spelling and pronouncing abilities. Blevins ever said in his book that "Once readers have some knowledge of phonics, they can decode the words they read. And their spelling and identification abilities will be improved after that." [5] Just because of this, in the end of semester, students in experimental class are able to spell any English words naturally since they grasp the spelling rules

and skills by learning phonics. In addition, phonics makes students pay more attention to the corresponding relation between sound and form of a word. To some extent, it can help them identify words by hearing sounds and write correct forms by hearing sounds.

Last but not least, phonics can help students enhance vocabulary learning interests in the long term. The traditional teaching method of vocabulary makes students memorize words letter by letter mechanically. As time goes by, memory fades a bit and most words are forgotten. In this case, students lose heart in vocabulary learning and finally lose interests. By learning phonics, most students are found to be able to pronounce new words easily and be more willing to do so. They become more confident in words spelling and pronouncing, which raise their learning interest in English vocabulary.

Conclusion

Phonics is an effective way for primary students to learn English pronunciation, vocabulary and reading. For one thing, it fits the cognitive development of pupils and strengthens their abilities of meaningful memorization. For another, it can reinforce the function of positive transfer and facilitate the second language learning. Therefore, this new method is well received in current English teaching and learning.

Based on the findings, this study hopes to provide some suggestions for further English vocabulary teaching. Firstly, guided by phonics, English teachers should help students to form stable knowledge system of word spelling. Step-by-step instruction on phonogram and practice will make students have a better understanding of spelling and pronouncing rules, but also raises their phonological awareness. Secondly, teachers should use multilevel teaching methods and design interesting activities in class to activate students to learn vocabulary and keep their interests. For example, teacher can introduce students the spelling rules by imagination, summary, comparison and contrast, and ask them to make spelling and pronunciation practice through cards, games, songs and rhymes. Thirdly, teachers should help students to do more reading exercises which may consolidate the spelling rules they learnt before. Reading simple stories books with illustrations of the same level can make students adapt to the real English learning environment. Using phonics to read unknown words in stories can help them assimilate and internalize the spelling and pronunciation rules.

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