

# An Investigation into the Phonological Awareness of Pre-service Primary School English Teachers in China

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**Keywords:** Primary School English Teachers; Pre-Service Period; Phonological Awareness

**Abstract:** Primary school period plays a critical role in building English learning foundations for beginners. Abilities and qualities of primary school English teachers influence students' acquirement of English knowledge and skills to a great extent. Among the variety of English knowledge and skills, phonological acquisition shows its basic role in the whole process of learning, therefore, understanding the phonological awareness of primary school English teachers in their pre-service period is of great importance. Students with strong phonological awareness can get well prepared for their jobs in primary school English teaching practices.

## 1. Introduction

Language has three key elements: speech sound, vocabulary and grammar. Speech sound is the material form of a language and serves as the base of language learning. American phonetician A.C. Gimson says: to master any language, a person must know nearly 100% of its phonetics, while only 50-90% of its grammar and 1% of its vocabulary [1]. Research by neuroscience show that language abilities of human beings are mostly developed before they turn to 10 years old. Children under 10 have good listening and imitation abilities, therefore, they can easily acquire communication skills in foreign language acquisition [2].

Phonological awareness is the awareness and ability to recognize and manipulate speech sound, and it serves as the premise of language competency [3]. Research on phonological awareness was originated in 1960s and it focused on the relationship between phonological awareness and reading competency [4]. In the 1990s, with the increase of research on the exploration of the relationships between phonological awareness and reading and spelling, phonological awareness received more and more attention in the field of reading literacy acquisition and dyslexia [5]. A large amount of research on spelling shows that word decoding skills play critical roles at the initial stage of children reading literacy development. Decoding skills rely on the development of phonological awareness, therefore, phonological awareness plays as a key factor in the development of children early reading and spelling competencies. Deficiencies in phonological awareness leads to developmental dyslexia [6-8].

In primary school English teaching, phonological awareness is the subjective reaction of teachers towards objective speech sound. More specifically, it is teachers' sensitivity towards the pronunciation, intonation, speed and rules of the language they deal with in their teaching practices. Teachers should be capable of understanding and evaluating the teaching and learning behaviors from the phonological perspective [9]. Phonological awareness is the basic phonetic literacy of primary school English teachers. Deficiencies in their phonological abilities will undoubtedly affect students' acquisition of English language at the initial stage.

In China, few studies have been conducted in relation to phonological awareness, and within this few, most of the research take primary and middle school students instead of college students as the target population [10]. Taking the importance of phonological acquisition in the primary school period into consideration, the current study investigates the phonological awareness of college students majored in English education with the purpose of providing suggestions for the training of

primary school English teachers during the pre-service period.

## 2. Methodology

### 2.1 Research Design and Sample Selection

The major resource of primary school English teachers are college graduates. The current study takes students majored in English education as the target population and randomly select 64 students from a college in Shanghai, China. Within the 64 students, 9 are boys and 55 are girls. 38 of the 64 took the elective course of *English Pronunciation* in the second semester of their first year in college. English education major aims to train and cultivate students to be proficient primary school and middle school English teachers. As the pre-service period of primary school English teachers, their phonological acquisition in college affect their abilities in teaching. Therefore, getting a better understanding of their phonological awareness helps the college further enhance their phonological abilities and upgrade their qualities for the teaching career.

### 2.2 Instrumentation

The current study adopts *English Phonological Awareness of English Majors Scale* adapted from Bai's scale as the instrument [8] [11]. The scale contains 79 questions concerning three sub scales. The three sub scales are syllable awareness, onset-rime awareness and phoneme awareness. There are 24 questions in the part of syllable awareness, accounting for 24 points, 33 points in the part of onset-rime awareness and 22 points in the part of phoneme awareness. The cronbach alpha of the scale is 0.804 indicating good reliability of the scale. The study tries to answer the following three questions: 1. How about the phonological awareness of second year students majored in English education? 2. Does *English Pronunciation* course make a difference in students' phonological acquisition? 3. How to further promote students' phonological abilities? The scale was administered as an in-class test and all the 64 students sent back their responses.

## 3. Results and Discussion

### 3.1 Data Analyses of All Students

Data collected are analyzed by SPSS 16 and the descriptive statistics of the scale are presented in Table 1.

Table 1 Descriptive Statistics of the Scale (n=64)

	N	Minimum	Maximum	Mean	Std. Deviation
Syllable Awareness	64	6	22	13.2	3.451
Onset-rime Awareness	64	15	33	23.59	4.193
Phoneme Awareness	64	9	22	16.80	3.542
Phonological Awareness	64	33	74	53.59	8.451
Valid N (listwise)	64				

It can be perceived from Table 1 that the lowest score of the scale is 33 while the highest score is 74. As to the three sub scales, the lowest score of syllable awareness is 6 while the highest score is 22 with the average of 13.2. The lowest score of onset-rime awareness is 15 while the highest score is 33 with the average of 23.59. The lowest score of phoneme awareness is 9 while the highest score is 22 with the average of 16.8. The average score of the phonological awareness as a whole is 53.59. In general, students' phonological awareness level is not high. Among the three sub scales, student performed best in phoneme awareness, onset-rime awareness as the second and syllable awareness the worst.

To analyze more specifically, students' response to syllable awareness show that 92% of the students divide single syllable words into multiple syllables. In addition, students are not sure about

how to divide words in their written form into syllables. Take the word butterfly as an example. Most students divide the word into syllables such as butter-fly, or bu-tter-fly instead of but-ter-fly. In their counting of syllables in a word, some students have no idea of dividing syllables base on the number of vowels.

In the part of onset-rime awareness, the main problem is students' unfamiliarity with words' pronunciation. For example, in the question of finding out the word with different rhyme, half of the students circled "more" or "store" among the four words "more, store, sour, four" instead of "sour". If students could pronounce the word correctly, there may not be such a high proportion of mistakes. Another problem is to differentiate between the front vowel /e/ and /æ/. 69% of the students think "bury" is the one with different rhyme instead of "marry" in the four words "merry, bury, cherry, marry". In addition, students have a hard time recognizing onset and rhyme. Some students have no idea about consonant clusters and some take the first sound as the onset and the last sound as the rhyme.

Phoneme awareness contains phoneme manipulation and phoneme output. Students' performance in phoneme manipulation are good, they can recognize the missing phoneme and can replace and delete corresponding phonemes to form new words in the correct way. However, students' performance in phoneme output are not satisfactory. For one thing, students can not write down the phonemes in the letter and words correctly; for another, students mix up the phonetic symbols of different versions.

### 3.2 Data Analyses of Students Participated in *English Pronunciation Course*

Descriptive statistics of students who selected the *English Pronunciation* course in the second semester of freshman year are listed in Table 2.

Table 2 Descriptive Statistics of Students in *English Pronunciation Course* (n=38)

	N	Minimum	Maximum	Mean	Std. Deviation
Syllable Awareness	38	8	22	14.03	3.333
Onset-rime Awareness	38	17	33	22.79	4.375
Phoneme Awareness	38	9	21	16.08	3.157
Phonological Awareness	38	38	74	52.89	8.324
Valid N (listwise)	38				

Descriptive statistics of students who did not select *English Pronunciation* course are listed in Table 3.

Table 3 Descriptive Statistics of Students Not in *English Pronunciation Course* (n=26)

	N	Minimum	Maximum	Mean	Std. Deviation
Syllable Awareness	26	6	20	12.04	3.292
Onset-rime Awareness	26	15	30	24.77	3.680
Phoneme Awareness	26	9	22	17.81	3.868
Phonological Awareness	26	33	68	54.62	8.695
Valid N (listwise)	26				

38 students selected *English Pronunciation* course for one semester in their freshman year. The course has 2 periods each week and 16 weeks in total. The second edition of *English Pronunciation and Intonation for Communication* is used as the textbook. Textbook content covers vowels, consonants, stress, rhythm, syllable, intonation etc. According to statistics from the current study,

students in *English Pronunciation* course score higher in syllable awareness than their counterpart. However, they do not perform better in onset-rime awareness and phoneme awareness. More specifically, two students above 70 had received phonetic training in *English Pronunciation* course. 28% of the 38 students participated in *English Pronunciation* course get scores higher than the overall average 53.59 which is higher than the 23% among the non participated students. Also, two students score below 40 did not participate in *English Pronunciation* course. Generally speaking, knowledge about syllables acquired in *English Pronunciation* course affect the test result to some extent. It should also be noticed that students who participated in *English Pronunciation* course are mostly those who had lower language proficiency levels, therefore, their participation in the course help improve their phonological abilities. Meanwhile, students who are good at English make further progress in their study in phonology.

Analyses of the data from the test results reveal that *English Pronunciation* course in only one semester can hardly cover the phonological knowledge students need to learn. Introduction and practice of vowels and consonants occupy almost half of the semester. In addition, concept such as onset-rime is not part of the textbook hence students participated in the course do not perform better than their classmates in the test.

#### 4. Conclusion

Scholars abroad held that children develop their syllable awareness at the age of 3, onset-rime awareness at the age of 4 and not until 7 could they develop phoneme awareness. Therefore, they believe that the acquirement of syllable awareness is the simplest while next onset-rime awareness, the acquisition of phoneme awareness is considered to be the hardest one [7] [12]. Chinese scholars held different opinions as some believe students acquire onset-rime awareness first while some believe students acquire syllable awareness first [4] [13] [14]. In the current study, students do not perform well in syllable awareness due to their lack of knowledge in rules of dividing words into syllables. Also, they have problems in recognizing onset and rhyme. Although their performance in phoneme awareness in general is better than the other two, their responses in phoneme output are far from satisfactory. As a whole, the performance of second year students majored in English education exhibits various problems.

The phonological literacy of primary school English teachers affects or even decides the language level of beginning learners. There are still a lot to be improved based on their performance in this test. Students do not have *English Pronunciation* course in the following three years in college. Therefore, it is strongly advised that teachers of other courses attach great importance to students' phonological abilities in order to help students lay solid foundations for their future teaching jobs.

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