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**The Application of Phonics in English Pronunciation Teaching in
Chinese Primary School from the Perspective of Cognitive
Development Theory**

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Abstract

The Cognitive-development Theory put forward by psychologist Piaget, a world famous psychologist, holds that learning should follow the principle from simplicity to difficulty, which is consistent with the teaching principle advocated by the Phonics. The phonetic form of Phonics is consistent, which can effectively utilize the positive transfer of Chinese pinyin. It has the characteristics of simplicity and ease of learning, conforms to the cognitive characteristics and thinking mode of primary school students, and conforms to their language learning needs and abilities. Therefore, in the process of English pronunciation teaching in primary schools, the use of Phonics teaching can stimulate students' intrinsic learning motivation, so that they can constantly experience the sense of achievement and thus improve the teaching effect.

Keywords: *Cognitive-development Theory; Phonics; Chinese Primary English; pronunciation teaching*

Introduction

Compulsory Education English Curriculum Standards (2011) points out that “pronunciation teaching plays a crucial role in language teaching, and the pronunciation and intonation of natural standards can make a good foundation for effective oral communication.”

For learning English, pronunciation is the first step. Students who master the knowledge of pronunciation will be more efficient at learning English than other students who do not have knowledge of pronunciation. Therefore, letting students master certain pronunciation knowledge has a positive impact on students' language learning. According the curriculum standards, the teaching of pronunciation should be carried out with reference to the corresponding level of speech knowledge. For example, the secondary standard in primary school, the requirement of pronunciation for students of Grade four to six is understanding the simple pronunciation rules, and ask students to spell words according to the pronunciation rules. Most students in China learn English at school. However pronunciation teaching is weakened, and students do not have a special class to learn the phonetic symbols.

Phonics allows students to read an English word, or think of a word to spell it. That is to say, when students see the word, through the pronunciation of English, students can read it out smoothly, even if they have not learned before. In the teaching process, students can be guided to discover and grasp the relevance and regularity of the letter composition of the word and its pronunciation. By mastering these rules, students can learn and master English words more easily, thus stimulating their enthusiasm for learning English, and then cultivate their interest in English. Therefore, the introduction of phonetic teaching into primary school English teaching, students' English learning efficiency will be significantly improved, and then get rid of the situation of rote memorization.

This thesis contains five parts. The first part is the introduction, pointing out the importance of phonetic teaching in English teaching. The second part presents the theoretical framework. It tells us the definition, functions and the advantages of pronunciation in comparison with the international pronunciation alphabet method. The third part will explain how the pronunciation teaching is applied in the primary school English classroom teaching. The last part is the conclusion part.

Theoretical Basis - the Cognitive-development Theory

The theory of Children's Cognitive-development, founded by Swiss psychologist, biologist and philosopher, Jean Piaget, was known the most authoritative developmental psychology theory of the 20th century (Piaget, Ingler, 1981).

Cognitive-development theory focuses on the individual's cognitive process of various things and advocates that the way of thinking changes with age in the process of adapting to the external environment. Through careful and continuous observation, research scholars recorded the intellectual response of children in daily life situations.

Based on children's cognitive development theory, some different stage for children's cognitive are illustrated in the following part.

1. The Four Stages of Children's Cognitive-development Theory

Children's cognitive development has gone through the following stages. The first is from the birth to about two years old, the child is in the stage of perceptual movement. Children of this period understand the world around them mainly through their own feelings and actions. At this time, they could not differentiate the subject from the object, thus “showing a fundamental self-centralization”.

Children from 2 to 7 years old are in the pre-performance stage. The characteristic is that cognition begins to have symbolic function, but judgment is still dominated by intuitive thinking. Piaget believed that when children were two years old, a Copernican revolution took place, that is to say, their activities were no longer centered on the body of the subject.

When children are about 7-11 years old, they are in the stage of concrete operation, characterized by a certain degree of reasoning with the help of specific things.

At the age of 12, children begin to operate logically on abstract and representational materials, instead of relying on specific things. This is the stage of formal operations, which is characterized by their ability to separate form from content and replace other things with operational symbols. (Piaget,1981).

2. The Cognitive Characteristics of Primary Students

Primary school students are mainly between the ages of 7 and 12. Children of this age have a strong curiosity about the things around them, and they also have a strong social desire. At this stage, their minds are slowly becoming more complex from simple development. The learning process of pinyin is from letters to letters, phonemes, and finally to chapters. This means they start learning Pinyin from the simple part and then into the more difficult part. In the process of learning, students can learn about new things. Therefore, in the new teaching mode, the process of learning language is the process of perceiving and understanding speech and text symbols to cultivate students' learning ability and explore their potential to learn English.[2]

Children's understanding of language is based on their perception of pronunciation, especially fonts. Therefore, if children want to learn a language, they need to understand words first, so learning words is inseparable from pronunciation.

The best stage to learn a language is early childhood. Learning pronunciation plays an important role in English teaching. Through pronunciation teaching, students can be given the correct word pronunciation based on the basics. The accuracy of pronunciation directly affects the English level of students. Primary school English pronunciation teaching follows the principle of easy to difficult. Start with the pronunciation of a single letter, step by step, to the pronunciation of multiple letters, and finally to the pronunciation of the entire word. This pronunciation teaching mode is suitable for children's development level, conforms to children's cognitive characteristics and mode of thinking, and conforms to children's needs and abilities of learning a complete language. The remarkable characteristic of children's cognitive development is through their own operational activities. The ability of listening, speaking, reading and writing will be trained by phonetics that begin through phonogram and pronunciation rules. Through specific brain manipulation, children's multiple senses can be mobilized to participate in learning and three levels of practice: action, image and concept representation so that they can constantly experience the sense of achievement and thus stimulate the students' internal motivation to learn.

Studies on Phonics

Since the introduction of the natural pronunciation method abroad, it has gradually become one of the English teaching methods in the domestic education industry.

1. The Definition of Phonics

There are various definitions of Phonics. In Longman Dictionary, Phonics is defined as "a method of teaching reading in which they are taught to recognize the sounds represented by the letters." [3] Phonics can be regarded as pronunciation instruction that teaches children how to pronounce the words which they are not familiar with.

In Wikipedia, Phonics is defined as follows: “a method of teaching English reading and writing by cultivating learners’ pronunciation awareness, the ability to listen, identify and manipulate phonemes. In order to teach the correspondence between these sounds and spelling patterns that represent them.”

Xu Lihong(2014) believes that natural pronunciation is a speech learning method based on the pronunciation of the language. It confirms how to pronounce the sound according to the pronunciation of the "letter" itself and the pronunciation of different "letter combinations". Organized and systematically integrated, students can grasp the pronunciation they represent by recognizing letters and letter combinations.”

Gao Min(2005) argued that the basic principle of pronunciation is to require students to master the pronunciation of the letters and combinations of letters that represent the 44 basic sounds of English. In pronunciation, for example, the consonant /b/stands for /b/ not the pronoun /bi/vowel combination /ai/ /ay/ stand for /ei/”.[6]

Scholars define speech from different angles, but these definitions have one thing in common: treating the content of Phonics as the relation between text and speech. Using the written form of the word to identify the pronunciation of the word, this implies that Phonics can be used to teach students to read the sounds of the word based on their spelling. Teachers should pay attention to understanding and mastering this method. In this paper, the author unifies the concept name as Phonics.

2. The Functions of Phonics

First of all, Phonics is in line with the thinking mode of primary school students. The Phonics releases the process of memorizing English words from traditional rote memorization, which helps students master more English words.

Secondly, the Phonics is an effective method for students to learn English word. Jiang Nan(2016) has proposed that “It can also make many pupils interested in English learning and the possibility of English teaching. Meanwhile, the efficiency of English learning will be improved as the word memory is secured and the word memory is rising.”

3. The Advantages of Phonics in Comparison with the International Phonics Alphabet Method (IPA)

First of all, Phonics is one of the tools for language learning, just like the Chinese Pinyin system. Phonics is an auxiliary learning system formed outside the English word-word system, which is specially served for non-native speakers. Voice standards help students accurately pronounce words. Students master the 48 phoneme symbols in the Phonics standard and can spell all the English words with the help of the phonemes of the words.

Compared with the IPA method, the Phonics has the following advantages:

a) Phonics Consistency

The sound shape is consistent and easy to learn. According to relevant statistics, among the 500,000 English words, only 2.6% of the inconsistent sound shapes and 97.4% of the sound shapes are consistent. By using the Phonics, students can learn and memorize words without having to pronounce the pronunciation as long as they have good command of the rules of pronunciation of the letters and combinations in the words. Students can know the relationship between English pronunciations and use these rules to remember the pronunciation of words, so that when students know the word’s pronunciation, they can spell it. There are also some researches of teaching prove Phonics is the fastest, easiest and most effective way for any student to learn vocabulary regardless of his age.

b) Effective Use of the Positive Transfer of Chinese Pinyin

The students in the lower grades of elementary school have already mastered Chinese Pinyin, and the ability to read and they read with Phonics has basically taken shape. Because there are some similarities between Chinese Pinyin and English pronunciation. For example, / ao / in Chinese Pinyin is basically the same as vowel / au / in English. Early using of Phonics for pronunciation teaching can make use of the positive transfer effect of Chinese Pinyin on pronunciation teaching so that students can learn the pronunciation English letters and their combinations effectively.

c) Reducing Students' Burden

Avoid learning the interference of the pronunciation band. Both the pronunciation standard and the Phonics use phoneme (phonemic) teaching, but the pronunciation standard to learn 48 phonemes, is to represent the phoneme with a different set of written symbols. This undoubtedly increases the burden on pupils. In pronunciation learning, 44 of the 48 phonemes are combinations of letters and letters, representing phonemes. Learners can simply memorize a set of symbols (English alphabet). In this way, we can make up for the shortcomings of the two sets of symbols, balance the two sets of symbols by learning pronunciation standards, and reduce the burden of learning.

d) Adaptation to Local Conditions

Learning and direct pronunciation are not subject to conditions, and do not have to rely on expensive teaching equipment such as language labs, computers, projectors, etc. Even in the underdeveloped rural and mountainous schools, students can learn and master pronunciation.

e) Stimulating of Students' Learning Autonomy

Phonics not only can spell out English words more accurately, but also lay a good foundation for students to recite English words in the future. In the process of teaching, the students' self-learning ability is cultivated through the Phonics throughout the teaching process, so that students can form their own ability to learn English. In this way, they can learn the pronunciation of new words in advance, improve the effectiveness of classroom learning, enable teachers to teach more in the classroom, and lay a solid foundation to a certain extent. In short, the greatest advantage of Phonics is that by this way students do not need to learn a new knowledge system, but to learn how to discover and grasp the internal relations and rules of words and shapes. Phonics' learning method is to learn the pronunciation of letters and combinations by layers, and then use the pronunciation rules learned to further learn words.

The Application of Phonics in Chinese Primary School English Pronunciation Teaching

In this part, the application of Phonics in primary English pronunciation teaching will be mainly discussed. Firstly, the present situation of English pronunciation teaching in primary school and the causes of them are discussed, then the feasibility of the application of Phonics in English pronunciation teaching in primary schools.

1. The Present Situation of English Pronunciation Teaching in Primary Schools

Professor Hu Chundong(1990) pointed out in the English Teaching Method: that "pronunciation is the first level of teaching. However, teachers and students pay insufficient attention to it. According to the investigation and research on the polarization of middle school English teaching, whether it is between regions, the polarization between the classes is related to the teaching of speech. To solve the problem that high school students do not spell words according to phonetic symbols and cannot learn words according to pronunciation knowledge, it is necessary to understand the current situation of English pronunciation teaching in compulsory education."

a) The Outdated Teaching Concepts

Primary school is the key period of English teaching. English pronunciation teaching plays a vital role in the future growth and development of students. In elementary school, you can also encourage the use of pronunciation, listening, speaking, reading, and writing. So does their interest in learning English. However, at present, primary school English teachers have not changed their teaching concepts and are deeply influenced by exam-oriented education. Teaching for exams makes students learn English for exams.

One of the main reasons why primary school English teachers fail to accurately locate the target of pronunciation teaching is that primary school English teaching fails to achieve the expected results.

b) The Unscientific Teaching Content

At present, the content of English teaching in primary schools in our country is not scientific, which makes it difficult for students to improve their English proficiency substantially. The reason is that primary school English teachers have not been systematically trained and they can't guide students in arranging English teaching contents, and there is a phenomenon that teaching content in the classroom is divorced from reality, which cannot arouse the students' strong interest in English learning. At the same time, due to the lack of class hours for English pronunciation teaching in schools, students cannot carry out coherent "listening, speaking, reading and writing" learning, which seriously affects the cultivation of students' English learning ability, resulting in poor English teaching effect.

c) The Unreasonable Teaching Method

At present, primary school English teachers only pay attention to the explanation of concepts in the process of explaining Phonics symbols and syllables, but neglect the accuracy of students' pronunciation and intonation. Therefore, in the process of reading aloud, pupils often neglect the accuracy of pronunciation. Unreasonable and unscientific English Phonics teaching cannot really improve students' English learning ability, nor can it really play its due role.

2. The Reasons for the Failure of English Pronunciation Teaching in Primary Schools

At present, English teaching mainly adopts the International phonetic standard method, which is a common pronunciation symbol in the world, and it is formulated according to the principle that "a phoneme is represented by only one pronunciation symbol, and a pronunciation symbol represents only one phoneme".

The phonetic standard is to learn 48 phonemes, students can use phonemes (the text in the word of the pronunciation label or look up dictionary) to spell all the English words.

However, the phonetic standard also has its limitations, which are precisely the reasons of the failure of English pronunciation teaching.

a) The Inadequacy of Traditional Phonetic Alphabet Teaching

Phonetics is just one of the means of pronunciation learning; Phonics is an auxiliary learning system that is formed outside the English word system and is designed to serve non-native speakers. Furthermore, for the children whose mother tongue is Chinese, learning English itself is a brand-new symbol system. If we learn another set of international phonetic symbols system, the difficulty of English learning will be increased and the student's frustration will be caused.

b) The Improper Teaching Method

In English pronunciation teaching, teachers are the main body of teaching. However, there are still many shortcomings in teachers' teaching methods when we carefully examine the current situation of primary school teaching, especially in the senior grades of primary schools.

(1) In the actual phonetics teaching, the purpose of teachers is too utilitarian. Only in order to cope with the examination; (2) teachers only pay attention to the teaching of single vowel or consonant, but ignore the teaching of stress, intonation and rhythm; (3) the teaching method of pronunciation is single, which leads to the dull teaching of pronunciation; (4) compared with grammar teaching and vocabulary teaching, the status of pronunciation teaching is lower.

c) Over Emphasis on the Pronunciation of Individual Words

Finally, the international phonetic system emphasizes the pronunciation of individual words too much, In real life, people's pronunciation is not always clear and accurate. When we talk to Anglo-Americans or when we watch English movies, many words are unclear because we over-emphasize the pitch of individual words when learning English. In the past, the international phonetic symbols were the main way to learn English pronunciation. Due to limited conditions, the pronunciation of English words in the past was mainly based on the notes provided by the dictionary.

3. The Application of Phonics in Primary School English Pronunciation Teaching

In the course of teaching, teachers should guide students to master the basic sound of English. Students master the basic pronunciation and then carry out simple word spelling exercises. The first step is to establish a link between the letter and the pronunciation to further help students spell out the correct combination of vowels and consonants, and then to master the combination of vowels, consonants and consonants, to help students spell simple double-syllable or even multi-syllable English words.

Then after the study of multi-syllable words, students' learning difficulty will be reduced to a large extent. Students' interest and passion of learning English will be aroused, if the English word spelling combined with games. This also can improve the efficiency of English teaching effectively.

a) The Use of Multiple Teaching Models

The premise of pronunciation proficiency is to learn the spelling of the system. In pronunciation teaching, teachers should not let students memorize these spelling rules by rote so that they can become dull pronunciation teaching, but should use various teaching strategies to help students understand and learn this rule. For example: analogy, induction, using the aid of the card, etc.

1) Analogy

Some vowels and consonants in English have similarities to some initials and finals in Chinese. Therefore, you can use the positive migration in Chinese Pinyin to combine Pinyin and English pronunciation, so that students can find the corresponding English pronunciation from the familiar Chinese Pinyin. For example, the pronunciation of "b, p, m, f, d, t, n" in pinyin is similar to the pronunciation of certain consonants in English. (For example, Pinyin / p / pronunciation / po / after vowel suppression, pronounced similar to consonants / p /) in English. How can we find similar pronunciations in Chinese and English and use it to get good teaching results.

2) Induction

When teaching pronunciation, teachers can lead students to classify vocabulary with the same pronunciation or similar pronunciation when they train their phonetic discrimination ability. These words can be summarized into a list and spelling exercises can be carried out through the vocabulary at any time. For example, when learning the pronunciation / i:/ of the letter combination “ea, ee”, the words “pea, sea, eat, meat, tea” can be classified into one group. In the teaching, the pronunciation of “oa” can be strengthened. When the letter combination “oa” is pronounced, all “oa” words before “t, d and k” can be summed up, with the pronunciation of / u:/. There are three words with the exception of “road, boat, coat” and so on. “oo” in other words is issued / u:/. This induction method makes it easier for students to master pronunciation in vocabulary learning, and easier for them to summarize in autonomous learning, forming their own vocabulary learning list.

3) Using the aid of the card.

After students understand the pronunciation rules of Phonics, they enter the stage of spelling practice. When explaining the spelling of monosyllabic and disyllabic vocabulary, teachers can use phonetic cards to show the spelling process visually. For example, when the word “green” is displayed, cards of “gr”, “ee” and “n” can be prepared separately. The cards of “e” and “n” can be combined in order to produce the sound of “cen”. Then the “gr” cards can be placed in front of the “cen” that has been combined to spell out the complete pronunciation of the word “green”. This method can also be used to teach multi-syllable vocabulary spelling.

b) The Use of Variety of Teaching Activities

1) Cognition on alphabetical pronunciation

The core of this stage is to establish a direct correspondence between letters and pronunciation. Each letter has its own name and corresponding voice. That is to say, when you remember the rules of pronunciation, they can accurately pronounce the combination of letters.

The method make students perceive the basic pronunciation of vowels “A”, “E”, “I”, “O”, “U” in words, and learning pronunciation of 26 letters and then students understand the pronunciation is regular, so that they can read their own words in accordance with the rules of pronunciation, which will make them fully feel the joy of success.

Each letter has its own name and corresponding sound. That is to say, when students see the letter, they can pronounce the corresponding sound, and when they hear the pronunciation, they can know the corresponding letters. Forming a direct correspondence between letters and their pronunciation is the essential part. During this stage, students can perceive the basic pronunciation of vowel letters “A, E, I, O, U” in words by induction, such as:

Letter “A” is pronounced [ei] such as “age, ate, name, cake, lake, take, make, game, given, made, late” etc.

Letter “E” is pronounced [i:] in “be, these, me, he, she, we” etc.

Learning the pronunciation of 26 letters enables students to understand that pronunciation is regular, so that they can pronounce the words according to the pronunciation rules themselves in learning, which will make them fully enjoy the pleasure of success.

2) The memory of the pronunciation of vowels

The pronunciation of the vowel letter combination is divided into unit tones and double vowels. Students master the combination of vowel letters, combined with the pronunciation of consonant letters in 26 letters, can spell out many open syllables and closed syllables of words.

3) The memory of the pronunciation of consonant

For example, the pronunciation of alphabetical combination “igh” is [ai] such as in the words “right, light, night, fight, may, tight”. In the process of teaching, when encountering words containing letter combinations, teachers will conduct classified and centralized learning, and constantly infiltrate, so that they can connect the fixed sound with the possible corresponding form intuition, and the certain form with the possible corresponding sound. The combination of vowel letters and vowel letters should be included. So does and the combination of consonant letters and consonant letters.

According to the above teaching order, one can separate some confusing pronunciation into different learning stages. Moreover, students can use the rules of pronunciation combinations to spell the vocabulary so that they can practice in time to consolidate the teaching content. Teachers need to work hard to guide students to “distinguish clearly and remember for a long time”. When students see a letter or a combination of letters, they can pronounce they correctly.

4) Exercises of spelling

The spelling practice of words promotes students' understanding of word pronunciation and memory of words. If the student is able to master this ability more smoothly, it will have a great positive impact on the student's spoken language. For example, letter “Aa” has eight pronunciations: in open syllables pronounce [ei] “date, make, come”; in closed syllables pronounce [æ] “map, cap, cat.”; when it is between “s” and “ss” is [a:] such as “fast, pass, glass, class, past”; in light syllables is [ə] in “about, above, again, abroad, want”. In the word “wall” is pronounced [ɔ:], in the word “comrade” is pronounced [i] and in the word “many” is pronounced [e]. There are also some letter combinations. For example, the pronunciation of “ir”: girl, bird, thirsty, third, first, birthday, circle, sir, shirt, skirt, dirty, skirt,

The combination of letters “ar” pronounces [a:r]” before “s” or “ss” . It also pronounces [a:] in the following words: hard, card, park, art, car, are, dark, arm, farmer, far, class, vase, glass, pass, etc.

The alphabetic combination of “ow” sometimes pronounces [u], for example: show, slow, sow, tow, bow, mow, etc.

In short, there are many pronunciations of single letters in English, but multiple English letters will have a more pronounced pronunciation. Students can learn from the pronunciation of a single letter and then transition to a combination of multiple letters. For more complex multi-syllable vocabulary, teachers can divide into one short syllable, let students spell out the pronunciation of short syllables, and finally connect these sounds into a whole pronunciation. After a lot of spelling exercises, students' ability to spell words and pronunciation will gradually improve. In a large number of spelling exercises, students are instructed how to translate letters and letter combinations into their corresponding pronunciation. Once students master these rules, it becomes much easier to remember words.

Conclusion

In this study, the feasibility and benefits of combining Phonics with Cognitive Development theory in pronunciation teaching in primary school are explored.

The principle of Phonics advocates the principle from simplicity to difficulty, which accords with the theory of Cognitive Development. Through applying the phonetics into the primary school English teaching, the pronunciation of students and the spelling ability of words can be greatly improved, thereby improving the

language ability of students to learn English. Phonics is closely related to pronunciations, word spelling and language use.

This further shows that the Phonics can be very beneficial to the development of various skills, and greatly improve the students' ability of speech and word building. The above research results have a certain enlightening effect on the Phonics and lexical teaching of primary school students.

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