

Research on Teaching Model of English Phonetics Based on Big Data Environment

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Abstract: The rapid development of computer technology and network technology has led to the rapid growth of network data. The era of big data has emerged as the times require, various mobile learning apps appear, and English teaching is surrounded by multi-dimensional data. In the background of big data, English phonetics teaching is facing opportunities and challenges brought about by the new era. In the new environment, combined with the current situation of college students' pronunciation and the problems in phonetics teaching, teachers should make full use of the advantages of big data to reform phonetic teaching, use diversified methods for phonetic teaching, and innovate a new model of English phonetic teaching.

1. Research Background

(1) The importance of phonetic teaching

Phonetics, as a part of the language structure, is an important basic course for college English majors, and it occupies a very important position in English teaching. It is the starting point of language teaching and one of the important manifestations of the comprehensive English quality of English majors. Correct pronunciation is the key to learning a foreign language, and intonation is the key to normal communication. For example, in daily life, inaccurate pronunciation may cause jokes. When shopping, it is important to say correctly whether you buy paper or pepper. As an English major, speaking fluent English is undoubtedly a stepping stone when looking for a job. Even now the new spoken test in the College English Test Band 4 and Band 6, the English pronunciation and intonation is used as one of the assessment and scoring standards, and the importance of English phonetics teaching can be seen.

(2) The current situation of college English phonetics teaching in China

Traditional English teaching is restricted by test-oriented education, and English pronunciation has not been paid much attention. A common phenomenon is that only reading and writing are emphasized, not listening and speaking. As a result, the oral ability

of college students lags far behind the writing ability of English. College students have some problems in the process of learning phonetics, for example, they can't accurately and reasonably use pronunciation skills such as intonation, rhythm, stress, and liaison. "College English Course Teaching Requirements" clearly stipulates that "the goal of college English teaching is to cultivate students' comprehensive English ability, especially listening and speaking ability, so that they can effectively communicate in English in oral and written communication in future work and social interactions" [1]. However, there are very few phonetic courses offered by universities in our country. Many colleges and universities only offer phonetic courses in the first year, and it is difficult to effectively popularize phonetic knowledge in limited time because it is a project of long period in itself, which creates contradictions. Secondly, due to the limited environmental conditions after class, it is impossible to create an environment for students to practice pronunciation. Some students are unwilling to speak English, or practice pronunciation. The resulting vicious circle is the biggest problem in English phonetics teaching.

(3) Exploration of the reform of college English phonetics teaching in China

In the early 19th century, phonetic teaching was not paid attention to, foreign language teaching has always adopted the "translation method"; in the early days of English phonetic teaching, the "direct teaching method" was adopted for college English phonetic teaching in China. During the teaching process, teachers can't use their mother tongue; they teach sentence patterns orally in the second language, students practice familiar sentence patterns repeatedly. Intuitive teaching method focuses on cultivating students' oral communication ability, and has a certain promotion effect on learning English pronunciation, but there is no clear grammatical explanation, which leads to some grammatical errors in the language spoken by students.

Recognizing the shortcomings of the "intuitive teaching method", English teaching gradually adopts the "listening and speaking method". It uses phonetic symbols, phonetic signs, pronunciation icons and other forms to develop phonetic teaching activities, focusing on the practice of repeated sentence patterns and the development of good phonetic habits. This teaching method has greatly improved the students' oral communication skills, but it is out of context and is not conducive to the flexible use of oral communication.

At present, the "Communicative Teaching Method" is prevalent in the phonetic teaching of college English in China. The communicative teaching method believes that the primary purpose of language teaching is to use authentic language to cultivate students' oral communication skills and advocates that sentence patterns should be practiced in the context.

Since the 19th century, the system of English phonetics teaching has gradually improved. The above teaching methods are all the efforts made by the English teaching staff in recent years to strengthen the phonetic teaching, and play a pivotal role in the improvement of college students' English phonetic ability. Although all kinds of teaching methods are constantly emerging, they all have limitations. In practical teaching, some teachers prefer to use the "listening and speaking method", that is, the teacher demonstrates or plays audio, and students learn pronunciation through follow-up and repeated practice [2]. The English pronunciation of Chinese college students has not improved significantly.

2. The Meaning of Big Data

Big data is the massive amount of data that defines the era of information explosion. According to Baidu Encyclopedia: Big data refers to a collection of data that cannot be captured, managed, and processed with conventional software tools within certain time. It is massive, high growth rate and diversified information assets which requires a new processing model to have stronger decision-making, insight and discovery, and process optimization capabilities.. 5V characteristics of big data (proposed by IBM): Volume (large number), Velocity (high speed), Variety (diversity), Value (low value density), Veracity (authenticity) [3].

In the era of big data, the large size, variety, high speed and timeliness of data sample can help us have an accurate positioning on the development of things. People can obtain information in real time through the Internet and share data through network. Thus information data will gradually accumulate, and it is also the characteristic of big data to filter out valuable information from the massive amount of information. With the rapid development and widespread popularity of social information and the Internet, network data has grown rapidly, and the era of big data has emerged. English teaching is surrounded by the era of geometric data, especially with the emergence of corpora, English phonetic teaching is facing opportunity and challenge that the new era brings. Therefore, reforming traditional English phonetics teaching in a big data environment, innovating teaching models, enabling college students to master the phonetics, and improving their oral communication skills is a problem worthy of research.

Although there have been many reform plans, there are very few researches on the reform of college students' English phonetics teaching in the environment of big data. The author made a discussion from this perspective. Through investigation and research, the author hopes to make full use of the advantages of big data to carry out innovative reforms in phonetic teaching.

3. Research on the New Model of Reform on College English Phonetic Teaching under the Environment of Big Data

In the era of big data, classroom teaching of college English phonetics must first carry out information construction, such as innovate teaching concepts, clarify teaching goals, innovate teaching methods, and at the same time strengthen the talents construction of college English teaching, and strive to provide college students with a good phonetic learning environment, Improve the level of college students' English pronunciation and improve the core competitiveness of English majors [4].

(1) Innovating the concept of college English phonetics teaching

Traditional English teaching pays too much attention to the explanation of grammar and vocabulary. With the implementation of curriculum reform, English teaching is turning to focus on cultivating students' comprehensive abilities, especially oral communication skills. College English phonetics teaching should keep pace with the times, and some teachers should change their teaching concepts, change the one-sided teaching concept of "emphasizing grammar and neglecting spoken language", and strive to create an equal and harmonious classroom atmosphere, and encourage students to participate in it and be willing to speak English.

(2) Clarify the goals of college English phonetics teaching

In the era of big data, college English phonetics teaching requires teachers to inject

modern information concepts into the teaching, combined with the syllabus and college students' English learning needs, to formulate clear goals of English phonetics teaching. First, combine basic knowledge with practical skills. English phonetics is a mixed course that requires a lot of speech input and output. The emphasis is on output, practice, and language communication.

Secondly, combine the process with method. This practical course should put students on the first place and allow students to practice listening and imitating. Teachers inspire and guide students to help and learn from each other, help correct pronunciation errors in the process, focus on cultivating students' phonological awareness, so that students can develop good pronunciation and reading habits, and improve their ability of phonetic output. At the same time, teachers should reasonably arrange the difficulty and progress of the exercises.

Finally, combine students' emotional attitudes with their values are combined. While teaching the basic knowledge and skills of phonetics, attention should also be paid to the influence of classroom teaching activities on students' emotional attitudes and values. For example, teachers should help students overcome the troubles and negative effects of dialects on English pronunciation, point out its regularity and universality, guide students to use their strengths and avoid weaknesses, and provide scientific and effective methods. To a certain extent, we should give students confidence in learning English pronunciation, and enhance the overall learning outlook of students.

(3) Innovative teaching methods of English pronunciation

In the era of big data, the core part is to innovate teaching methods of English phonetics. Because the teacher is the core in traditional teaching, students are restricted by the environment and time in the classroom and cannot do a lot of practical activities and can only passively accept knowledge. However, due to the characteristics of phonetic teaching, the output is far from enough. In the environment of big data, students should be put on the first place. Teachers should combine the characteristics of students and big data, clarify the teaching goals of each lesson, and innovate English phonetic teaching methods. At the same time, the advantages of big data should be injected into English phonetic teaching. Use modern teaching methods to stimulate students' interest in learning and improve the quality of English phonetics classroom teaching.

Activity teaching method is a new type of teaching method. It generally means that teachers create appropriate teaching situations for students according to teaching requirements and the process of students' acquiring knowledge, according to the level and characteristics of students' development, make students participate in the classroom teaching methods or processes of learning knowledge such as learning, discussion, games, and operating learning tools with their own abilities. The classroom model that focuses on activity teaching methods and has significant teaching effects is called activity teaching mode, also referred to as "activity teaching" [5]. The characteristic is to achieve "learning while playing, and play while learning" with activities as the center. The content of teaching materials is activated in the classroom according to its original communication, forming activities of different levels, different natures, and different forms, so that teachers and students can participate in it together. Negotiate and communicate with each other to help students gradually master the communicative tool of foreign language [6].

1) There must be a lot of phonetic input in English phonetics classroom teaching. According to Krashen's input hypothesis, understanding is the prerequisite which

internalizes inputting into ability. If the language form that the learner is exposed to is slightly higher than its current level, the language form can be understood, and then it can be internalized to produce language acquisition. From this he proposed a famous "i+1" formula. According to Krashen's point of view, learners can understand the newly input language materials in two ways: (1) make use of context to help them understand; (2) Teachers appropriately simplify the language input [7]. The first step to innovate the English phonetics classroom model is to use the activity teaching method to cultivate students' receptive ability. Because big data brings massive resources, teachers need to guide students to receive language information reasonably.

For example, in classroom activities, teachers can use multimedia to appropriately combine audio, video, pictures, sound, animation, etc. with English texts, and try to use various methods that are conducive to stimulating students' interest in learning, besides commonly-used PPT and projectors, mobile phones can also be combined with popular software such as Weibo, WeChat and other platforms. Not only is it not restricted by time and place, but it also guides students to use these softwares or mobile phones correctly, expanding the platform and opportunities for students to learn English phonetics. Another example is the use of the more popular movie "Frozen". In the classroom, the teacher will first play a movie clip related to this lesson. This widely acclaimed movie can quickly focus students' attention and stimulate their interest. After teachers organize students to watch the movie, they require students to imitate this movie clip and conduct oral expression training. Organize students to imitate dialogues and correct important pronunciations to improve the accuracy of students' English pronunciation. A variety of classroom activities can not only effectively stimulate students' interest in learning English pronunciation, but also enhance their subjective initiative during the process of participating in classroom activities and achieve the effect of empathy. The process of communication and interaction will help create a good English learning atmosphere, increase students' interest in learning English, and contribute to the sustainable development of English phonetics classroom activities.

Another example is in classroom teaching activities, teachers can use the way of listening to songs to learn English, teach the knowledge of pronunciation skills such as liaison and weak forms. For example, in lyrics "I'm sitting here in a boring room" in "Lemon Tree", the pronunciation skills of liaison will occur between in and a. Songs can stimulate students' interest, and also students can learn this pronunciation skill intuitively. In the era of big data, information spread conveniently and fast, which makes college students' English learning resources be expanded continuously, and finally aggregated into big data. Teachers should use these big data flexibly in classroom activities, such as English topics that students are more interested in, relevant TV plays, movies, and even games.. The rapid and diversified characteristics of big data can not only improve the quality of English phonetic teaching and expand the resources for students to learn English phonetics, but also can deepen students' understanding of English phonetics through vivid data, turning abstract into concrete one. Change the boring atmosphere of English phonetics learning in the past, so as to bring a new learning experience to college English phonetics classes.

2) There must be a lot of pronunciation output in English phonetics classroom teaching. According to Swain's "output hypothesis", "output can motivate learners to shift from semantic-based cognitive processing to syntactic-based cognitive processing [8]. Output is

potentially important in English phonetic teaching Function. The second step of innovating model of the English phonetic classroom is to use activity teaching methods to innovate to cultivate students' output ability, that is, activities from language input to output. Based on the first step, teachers must conduct a lot of practice when designing classroom activities, apply the learned phonetics through practice.

In the era of big data, there are many resources on practice platforms of college English phonetics. Teachers are no longer limited to written assignments, but can choose a suitable practice platform to truly realize substantive and diversified teaching modes. For example, according to the content taught in class, if teachers want students to practice repeatedly after class or in free time, they can use some apps such as " Speak Fluent English ", which is based on a new learning experience and rich learning materials , You can easily learn English anytime and anywhere. "Speak fluent English" allows you to practice oral English while playing games. Teachers can create study groups in the class to grade students' phonetic assignments based on the unified standard of this app, and record the wrong pronunciation. Students can learn through the barriers while correcting the wrong pronunciation, and they can really get the innovative experience of playing while learning and learning while playing. Learning in this way helps to achieve interaction between students, and provides a good platform for college English phonetic learning and students' overall improvement.

(4) Innovating the construction of a talent team for university English phonetics teaching

First, improve teachers' ability to use modern equipment. In traditional teaching, teachers often use textbooks, and students follow the teachers to read mechanically. Teachers have been disconnected from modern teaching equipment for a long time. The innovative classroom model in the era of big data requires training teachers to familiarize them with and use these modern tools and equipment to teach. Let teachers develop conscious use of Internet office software or current popular APP, and use the voice corpus to search for relevant data resources, constantly update relevant knowledge and skills, improve teaching efficiency, and promote the further development of college English pronunciation.

Secondly, innovate the evaluation terminology of teachers. In the era of big data, teachers can use the teaching platform of big data network to summarize and evaluate students' learning, and further promote the development of English phonetics learning by cultivating students' emotional attitudes [9,10].

4. Conclusion

With the development of network technology and the Internet, big data provides a clear direction for the innovation and reform of teaching mode of college English phonetics. The use of big data has changed the traditional role of teachers in phonetic teaching, and has given teachers a certain degree of challenges, but at the same time they have brought many opportunities. Big data enriches teaching resources and builds a bridge of interactive communication for learners. In the context of big data, college English phonetics classroom teaching uses innovative English phonetic teaching concepts, clarifies teaching goals, innovates the information construction of English phonetic teaching, and at the same time strengthens the construction of college English teaching talents, innovates new

models of English phonetic teaching, and strives to College students provide a good English phonetic learning environment. Make full use of the advantages of big data to reform phonetic teaching, use diversified methods for phonetic and intonation teaching, and improve the English phonetic level of college students and the core competitiveness of English majors.

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