New Online and Offline Mixed Teaching System of College English under the Computer Network Environment

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Abstract: With the rapid development of computer network technology, people begin to pay more attention to the internal relationship between the Internet and modern education, and the mixed teaching mode is also receiving more and more attention in the new media environment. The purpose of this thesis is to improve the quality of college English talent training and promote the internationalization of China's higher education. This paper adopts a comprehensive research method combining qualitative and quantitative methods to conduct an overall study of online and offline mixed teaching of college English in the form of questionnaires. The survey data shows that more than 50% of students agree with the online and offline mixed teaching mode.

1. Introduction

With the progress of information science and technology, human society is entering an intelligent era of information and networking. Traditional higher education has been greatly impacted under the Internet environment. This paper analyzes and discusses the problems, advantages and countermeasures of the current mixed teaching system from the aspects of teaching mode. Based on computer multimedia technology, a new system of efficient classroom mixed education has been established to achieve more interaction between teachers and students.

There are many theoretical achievements and scholars studying the mixed teaching system of college English. For example, some scholars said that China's college online English teaching has entered a new era [1-2]. Some researchers also believe that English as a language discipline can make use of a wide range of network resources [3-4]. Other researchers pointed out that according to the characteristics of the English discipline, establishing online and offline mixed education is one of the most effective methods [5-6]. Hybrid teaching system refers to the establishment of an organic relationship and coordination between the computer multimedia hardware, software and application system components. Therefore, the study of English blended teaching in this paper is an exploration based on the theory.

This paper first studies the computer network, analyzes the combination of Internet technology and foreign language teaching, and expounds the environmental advantages that computers bring to

English teaching. Secondly, it analyzes the cloud classroom teaching and offline classroom teaching. Then the framework of mixed teaching system is described. Finally, relevant data and conclusions are obtained through questionnaire survey.

2. College English Mixed Teaching under the Computer Network Environment

2.1 Computer Network

The widespread use of computer networks has brought unprecedented opportunities and challenges to the development of language education. With the development and progress of computer network technology itself and the courage of innovation, the application of computers in language teaching is gradually realized. The application of computers in the field of language teaching stems from the continuous development of teaching theory and the growing demand for teaching. We realize that it will develop with the passage of time. The rise of computer network technology has created new opportunities for foreign language teaching in China, and has had a significant impact on the content and form of traditional foreign language teaching. Integrate computer network technology and traditional foreign language teaching resources, make full use of the advantages of the network era, effectively integrate computer network into the organic components of foreign language courses, and finally adapt to the basic needs of the development of modern education.

By creating a dynamic and harmonious environment for foreign language teaching, students can gain a complete and comprehensive educational experience, enable their body and mind to develop harmoniously at any time, and help students overcome the problems of lack of subjective awareness of learning, strong learning anxiety and poor ability of autonomous learning in the new educational environment. Online and offline teaching can adjust the imbalance, integrate elements, timely improve the efficiency of classroom teaching in the new environment, and finally promote English teaching to return to the compatible, dynamic and benign ecological development path.

The integration of computer network in language teaching is the result of continuous optimization and integration of current expert research. The rapid development of computer network technology and the alternating integration of different learning theories have adjusted the characteristics of language teaching development in this environment. Computer assisted language behavior teaching, computer assisted language interactive teaching and computer assisted language comprehensive teaching have emerged. With the deepening and development of language teaching information technology, various open and dynamic teaching models have gradually emerged. The data-driven teaching model requires that classroom teachers can use the index generated by the computer network system to guide students to explore the target language independently, resulting in various support activities and exercises of the target language based on the index index. The direct driving force of the application of fuzzy logic technology is the economic value of this technology. Therefore, this paper explores the value of mixed teaching model [7-8]. The relationship in fuzzy rules can be expressed as:

$$S^i : G_j^i \times \cdots \times G_q^i \to H^i = X^i \to H^i \tag{1}$$

Where, q represents the input quantity, $i = 1, 2, \cdots, N$. S^i can be expressed by membership function:

$$\gamma_{S^i}(A, b) = \gamma_{X^i \to H^i}(A, b) \tag{2}$$

If $a_1 = G_1^i$, $b^i(A)$ can be expressed as:

$$\mathrm{b}^i(A) = \mathrm{d}_0^i + \mathrm{d}_1^i a_1 + \mathrm{d}_2^i a_2 + \cdots + \mathrm{d}_q^i a_q \qquad (3)$$

The powerful role of fuzzy logic technology can be fully reflected in the system of realizing advanced artificial intelligence. Online English teaching has completely changed the traditional teaching mode. This helps to make full use of new knowledge. Based on the digitalization of educational environment and learning tools, information technology is used as a teaching aid for teachers [9-10].

2.2 Framework of Mixed Teaching System

The goal of cloud classroom learning is to promote active interactive learning, personalized learning style, and change students' learning habits. The design of cloud classroom platform based on e-books is based on general requirements and functional requirements. Cloud classroom teaching mode includes teacher module and student module. The structure design of cloud classroom interactive visualization layer is mainly divided into four layers. In general, in order to achieve better teaching results, it means combining cloud-based classroom teaching with offline classroom teaching to develop classroom work and show it as a simultaneous teaching form. After thousands of years of sedimentation, the traditional offline classroom has accumulated rich teaching experience in the systematic dissemination of indirect knowledge, emotional orientation and personality development, but its shortcomings are also increasingly important, including the dangers of teaching and the low-end of teaching methods [11-12].

In the open network environment, MOOC is rich in resources, complements the teaching resources required for English teaching, and is innovative in school teaching. The MOOC-based mixed education system is very important for reforming the English education model. Students can find MOOC courses online according to their majors. Students of English teaching can choose their own online courses according to different majors and independently complete course learning to achieve teaching objectives.

More and more schools and educational institutions are using excellent network resources and various information to design courses. According to the expected objectives of the course knowledge, students use various learning aids provided by the MOOC platform to learn in their own way. According to the learning task, students independently conduct learning tests or online evaluation tests. Students' homework will be uploaded to the platform, and teachers will receive credits according to the online exam results and the completion of routine tasks [13-14].

3. Investigation on College English Mixed Teaching

3.1 Background of Case Study

The school has equipped each classroom with more advanced multifunctional teaching materials and purchased an online resource library to supplement the teaching materials. Each classroom is equipped with intelligent touch screen and specially designed network classroom. The mixed teaching mode is shown in Figure 1:

In English class, teachers and students can have classes, lectures, exercises and discussions in ordinary classrooms. Teachers use multimedia to show course materials to students to support the course. In addition, English teachers also use online courses to deeply integrate information technology courses to promote autonomous learning and research-based learning. The school strives to make full use of the most advanced online teaching tools, so that students can learn in different learning environments and different forms of teaching activities, which helps to continuously improve the overall ability and quality of students.
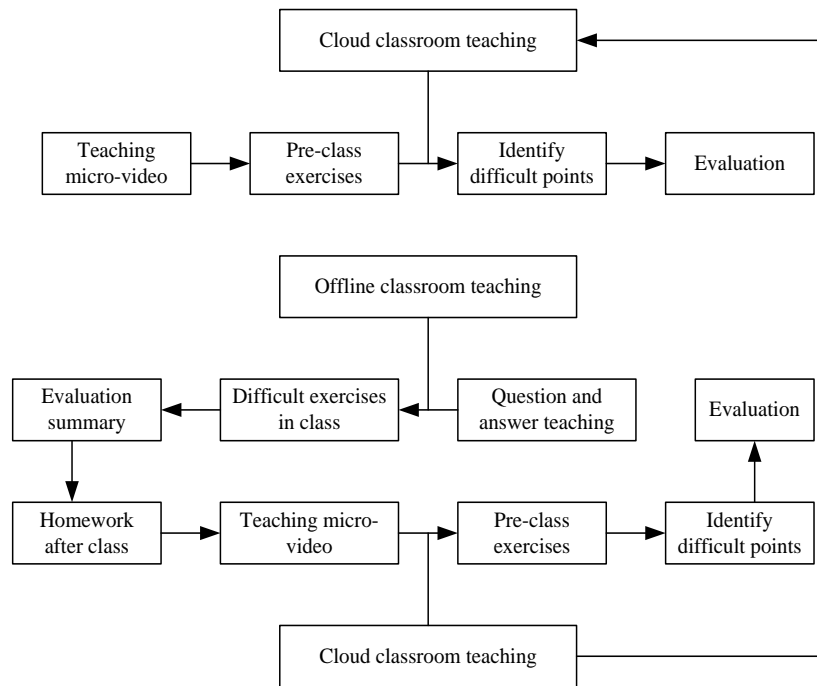
Figure 1: Mixed Teaching Mode

3.2 Selection of Respondents

The objects of this questionnaire are divided into students and teachers. Students are mainly investigated by filling in questionnaires, and teachers are mainly investigated by interviews. The students in this survey are English majors and English teachers in local universities. Among them, students choose one class from freshman to senior to fill in the questionnaire. Select 12 teachers from the college to interview before and after class[15]. A total of 200 students participated in the survey. Through computer statistics, 190 valid questionnaires were obtained. The purpose of this paper is to understand the teachers' feelings and views on the management of English classroom teaching under the mixed learning mode and the students' self-evaluation of the learning effect.

3.3 Design and Process of Investigation

First of all, this paper has observed the students' English class for many times, and found that under the mixed teaching mode, most students can seriously and actively participate in classroom activities, and communicate and discuss with other students, and cooperate to complete the learning task. Students have high enthusiasm for learning. After the teacher has assigned the learning tasks, most students can quickly participate in the learning activities and actively complete the tasks. At the same time, some problems were found: slow network speed in the classroom, some students' attention was not focused, the teaching design was not standardized enough, and the class hours were not accurately grasped.

The content of the questionnaire was selected by 12 teachers. The contents involved include: some basic information of students, the role of online teaching, the problems of online teaching, the role of offline teaching, the problems of offline teaching, the advantages of mixed teaching, and the countermeasures to improve the efficiency of mixed teaching. After observation, a questionnaire survey was carried out in one day. A total of 200 questionnaires were printed, and English college

students of different grades were invited to answer questions offline. This questionnaire is submitted to the monitor of each class for supervision and collection. After a day of questionnaire statistics, the corresponding data are obtained. In addition, according to the suggestions put forward by the interviewed teachers, the countermeasures for the effect of English classroom under the mixed learning mode are recommended and the results are obtained.

4. Analysis of Survey Results Related to Mixed Teaching

4.1 Student Questionnaire Results

According to the investigation of the effects and problems of English classroom under the mixed learning mode, this paper mainly discusses five aspects: stimulating interest, learning initiative, computer application ability, distracting attention, and affecting progress. The students' attitudes are divided into five levels: A, B, C, D and E, which are very agree, basically agree, can't say, basically disagree and completely disagree. The data in this paper is the proportion of people who agree with the advantages and problems. The specific results are shown in Table 1:

Table 1: Effect and Problems of English Classroom in Mixed Learning Mode

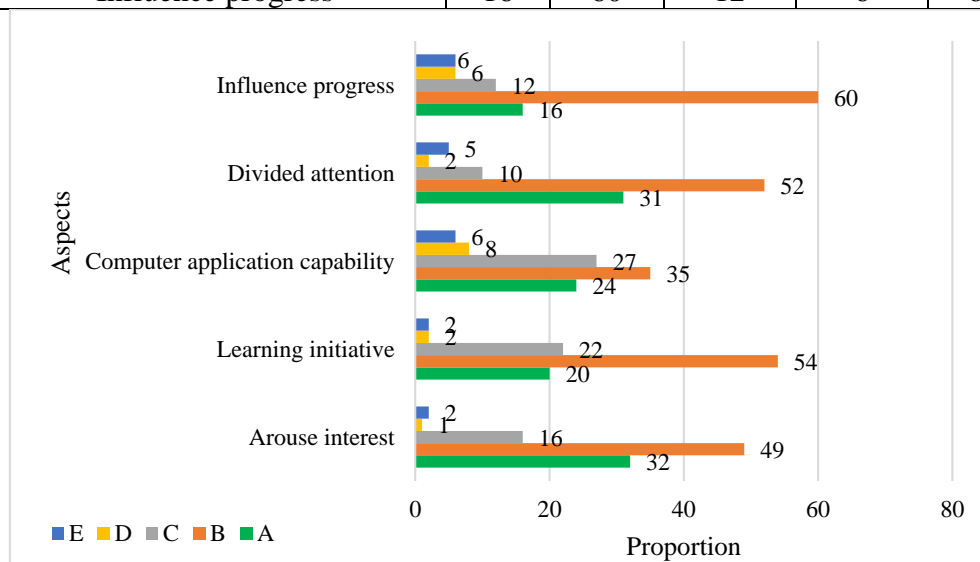|	A	B	C	D	E
Arouse interest	32	49	16	1	2
Learning initiative	20	54	22	2	2
Computer application capability	24	35	27	8	6
Divided attention	31	52	10	2	5
Influence progress	16	60	12	6	6

Figure 2: Effect and Problems of English Classroom in Mixed Learning Mode

As shown in Figure 2, we can see that most of the students agree with the survey on the effects and problems of English classroom under the mixed learning mode. That is to say, most students think that the mixed English teaching can stimulate their interest, increase their learning initiative and computer application ability. But at the same time, the progress of technology is also easy to distract them and affect the teaching progress.

4.2 Countermeasures to Improve the Effect of Mixed Teaching

According to the investigation on the countermeasures of English teaching effect under the mixed learning mode, the main discussion points are student-oriented, creating teaching environment, teaching management system, classroom teaching strategy, personal ability training, online and offline combination, and introducing network resources. The students' attitudes are divided into five levels: A, B, C, D and E, which are very agree, basically agree, can't say, basically disagree and completely disagree. The specific results are shown in Table 2:

Table 2: Countermeasures to Improve the Effect of Mixed Teaching

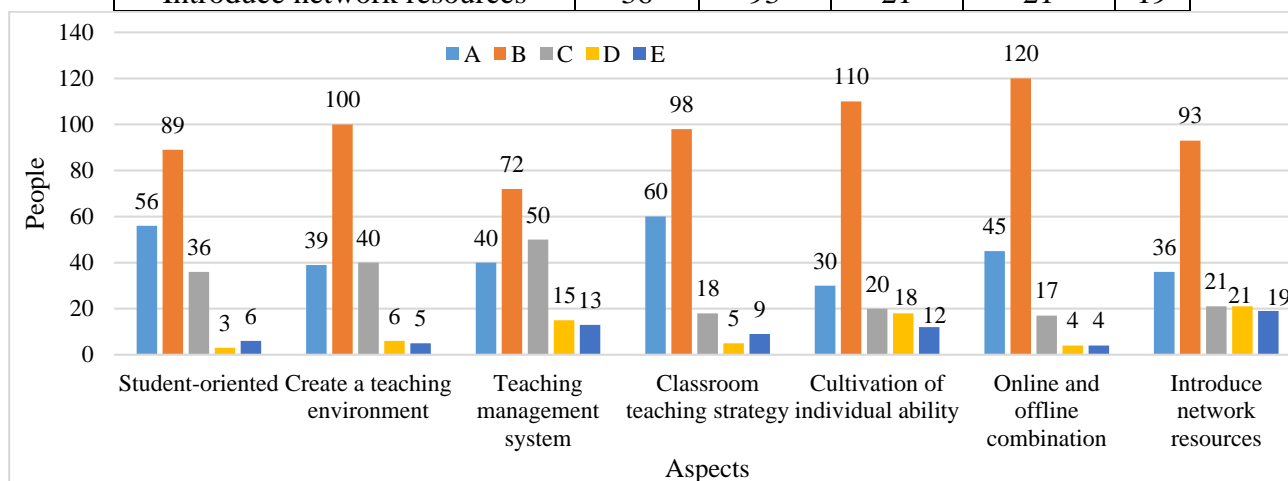|	A	B	C	D	E
Student-oriented	56	89	36	3	6
Create a teaching environment	39	100	40	6	5
Teaching management system	40	72	50	15	13
Classroom teaching strategy	60	98	18	5	9
Cultivation of individual ability	30	110	20	18	12
Online and offline combination	45	120	17	4	4
Introduce network resources	36	93	21	21	19

Figure 3: Countermeasures to Improve the Effect of Mixed Teaching

As shown in Figure 3, we can analyze and find that most of the students agree with the survey of English classroom effects and problems under the mixed learning mode. That is to say, most students believe that the effect of mixed English teaching should be improved from seven aspects: student-oriented, creating teaching environment, teaching management system, classroom teaching strategy, personal ability training, online and offline combination, and introducing network resources. In this survey, English teachers' ability improvement and the combination of online and offline have been supported by the majority of students. However, the attitude towards the English teaching management system is slightly unsatisfactory.

5. Conclusion

With the continuous development of network environment and information technology, hybrid classroom has been widely used in all walks of life. This paper mainly discusses the construction of online and offline college English teaching system under the network environment. Under this new system, college English online course learning is not only limited to the theoretical knowledge

points and practical application skills learned in the classroom, but also more to cultivate their innovative ability and learning interest. The combination of online and offline methods can effectively improve teaching efficiency. This paper uses a questionnaire to study the attitude of English majors towards mixed teaching mode and the support of mixed teaching. The survey results show that under the mixed teaching mode, English teachers should improve themselves, and teaching under the condition of ability matching can bring benefits to English majors.

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