

Construction of College English Online Teaching Resources Based on Cluster Analysis Algorithm

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Abstract

The increasing popularity of the Internet enriches the learning channels for college students, promotes the sharing of college English teaching resources, and stimulates students' interest in learning while improving the quality of English teaching. The establishment of digital college English teaching resource library can realize the co-construction and sharing of resources among teachers, students, schools and enterprises. English network resource library can provide rich and high-quality teaching materials for English teachers to prepare lessons, and also provide conditions for students to use the resource library to obtain information and learn independently. The network has the characteristics of openness and virtuality, which increases the dilemma of teaching resources sharing to a certain extent. Therefore, how to use the advantages of the network to enhance the sharing of English teaching resources is an important and urgent issue facing college English teaching. Based on cluster analysis algorithm, this paper analyzes the existing problems in the construction of English online teaching resources database, and puts forward the principles that should be paid attention to in the construction of resources, in order to realize the construction of efficient online teaching resources for college English and play its due role in modern English teaching.

Keywords: Teaching resources, English teaching, Cluster analysis

I . Introduction

In the current information development stage, great changes have taken place in the implementation means and media of university teaching. Therefore, there are more teaching media and video resources in the actual college English teaching, which has laid a good foundation for the development of College English Teaching [1]. Distance education is one of the important teaching methods based on modern network technology. Teachers maintain a state of separation from students in the form of educational resources or as learning facilitators [2]. How to locate students' learning status through the network education system and provide more targeted guidance to achieve good learning results is an urgent problem to be solved in the teaching process [3]. The English network resource bank can provide rich and high-quality teaching materials for English teachers' lesson preparation, provide conditions for students to use the resource bank to obtain information and autonomous learning, and provide effective support for comprehensively promoting quality education and realizing educational informatization [4]. The sharing of College English teaching resources has become possible with a new platform, which is of great benefit to English teaching. However, due to the influence of teaching philosophy and network characteristics, there are still some problems in the specific practice process [5]. In the resource integration of English teaching, the lack of high-quality ecological resources and the failure of overall planning seriously affect the integration and sharing of construction resources [6]. Therefore, it is very important to construct the sharing path of College English teaching resources.

At present, the use of modern information and communication technology has become an important part of College English teaching, and there are some problems in College English teaching, such as the diversity of students, the weakness of English foundation, the lack of English teaching resources and so on [7]. In the upsurge of national and even global teaching reform, English course, as a public basic course in universities, has a wide audience. However, the current college English curriculum information resources are very scarce, and the existing resources are scattered and unsystematic. Some curriculum resources are only formal, closed and solidified [8]. Internet resources have been widely used in today's society, and more and more fields are involved. Modern science and

technology is also changing our lives more or less [9]. With the rapid development of information technology, College English teaching has ushered in a new stage of development in this network environment. It should give full play to the advantages of various network resources, break the limitations of traditional classroom teaching, enrich the content and form of English teaching, and effectively stimulate students' motivation for English learning, so as to better improve students' Comprehensive English literacy [10]. Based on the cluster analysis algorithm, this paper analyzes the problems existing in the construction of English network teaching resource database, and puts forward the principles that should be paid attention to in the resource construction, in order to realize the construction of College English efficient online teaching resources and play a due role in modern English teaching.

II. The Necessity of the Integration and Innovative Development of College English Teaching Resources under the Network Environment

With the continuous deepening of the integration of teaching resources, universities have made great achievements, both in the comprehensiveness of resources and in the quality of teaching resources. Thanks to our solid foundation, the network covers almost every place in every university, and can enjoy the most authoritative first-hand resources wherever we are. Combined with the current situation of the development of online education in China, we can find that its development level is not high enough, which leads to relatively few high-quality resources that can be adapted to English teaching in universities, and the distribution of online English resources is scattered [11]. For a long time, teachers' teaching resources are self-centered and unwilling to share with other teachers. The resources in teachers' hands can be well integrated with the resources accumulated by the teaching and research section for a long time through the construction of resource pool, which is conducive to the effective gathering and wide sharing of teaching resources in the department, thus improving the organization, sharing and utilization of existing resources in universities. In actual college English teaching, different majors have different levels of English teaching, and there are also great differences in the specific arrangement of English courses. Therefore, when integrating college English teaching resources under the network environment, we should pay close attention to the development of English courses and apply network resources scientifically.

In the selection of network resources, teachers should pay attention to the fine selection of the carriers of resources, and pay attention to the continuous optimization of the selected resources in actual teaching, so as to better improve the efficiency and quality of college English teaching. The integration and sharing of educational resources is an inevitable outcome, and it is also the need of modern education. With the continuous improvement of scientific and technological level and the rapid development of society, education must be changed [12]. Schools should constantly carry out inter-school cooperation and integrate high-quality resources across disciplines, specialties and fields. So that teachers and students can enjoy the freshest first-hand resources to the maximum extent, and open up a new path for the teaching of our school. With the advent of the information age, information technology has developed rapidly, and there is more room for development of education in the new era. With the advancement of educational reform, teaching concepts and teaching models are constantly being updated, and important educational breakthroughs have been achieved, and important changes have taken place in educational content and methods. Teachers should realize that the integration of English teaching resources serves to improve the teaching quality. Only by ensuring that the content and function are in line with the needs of teaching, can the concrete effect of the integration of college English teaching resources be better ensured by scientific design. The core elements and relationships of the mode of creating and sharing educational resources are shown in Figure 1.

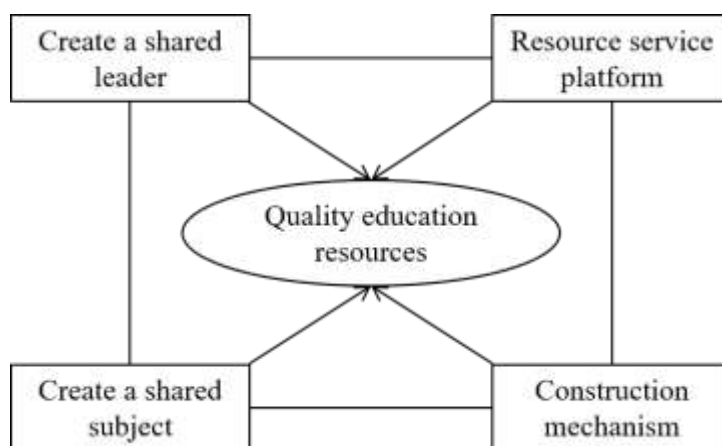


Fig.1 The Core Elements and Relationships of the Educational Resource Co-Creation and Sharing Model

In the information age, we still need new teaching theories and methods to guide the new teaching system in the process of educational reform. Therefore, under the network environment, the integration of college English teaching resources is in line with the needs of the development of the times. In the process of integrating teaching resources, teachers should pay attention to meeting the needs of students' learning and development, and provide students with diversified learning resources and learning information, so that students can learn independently in their extracurricular time and in combination with their actual learning situation. Under the current network environment, the system of college English teaching resources in China is not complete enough. By searching the resources of college English online teaching, we can find that the main websites in China include New Channel and New Oriental, while foreign websites have websites corresponding to universities. This means that the amount of college English teaching resources in China is small, and it can not adapt to the latest teaching level to a certain extent, which leads to the ineffective development of college English teaching. Under the network environment, the integration of college English teaching resources should pay attention to the scientific application of network resources, because the quality of English teaching lies not in the application times of various new media and the viewing time of network resources, but in the application of high-quality network resources. Only when teachers apply all kinds of high-quality network resources scientifically, can they better guarantee students' learning effect, instead of paying attention to the quality guarantee of network resources, which will inevitably affect students' learning effect of English knowledge to a certain extent.

III. Construction of College English Online Teaching Resources under the Network Environment

A. Construction of Teaching Resource System

At present, universities still lack the application of resources in English online teaching, which is mainly due to the lack of corresponding resource pool. Therefore, universities should effectively integrate resources and establish corresponding resource pool according to the actual situation of English teaching. The integration of English teaching resources also provides students with a relative language environment, because students can learn English in every corner of the campus, instead of just relying on teachers' dictation and reading dictionaries. This is not only to integrate teaching resources, but also to change the traditional teaching mode. Because of the school-to-school communication and other carriers, teachers can upload English teaching materials more conveniently, and students can receive education more conveniently, which is the establishment of English teaching resource system under the Internet environment. In the current network environment, in order to effectively realize the integration and innovative development of college English teaching resources, we should not only establish the corresponding teaching resource pool, but also pay attention to the transmission mode of teaching resources [13]. Under the network environment, the sharing of college English teaching resources is no longer limited to its inherent form, but

begins to develop in the direction of diversified sharing. The main reason is that the increasingly developed websites, Weibo, mobile phones and other media under the network environment are increasingly becoming resource sharing platforms.

Under the network environment, universities should abandon the traditional ideas and improve teachers' and students' attention to the sharing of English teaching resources by establishing the concept of keeping pace with the times. Based on this, universities should combine teaching resources sharing with school planning on the basis of understanding and mastering the related contents of English teaching resources sharing, and build a work planning and sharing system for teaching resources sharing, so as to implement teaching resources sharing into practice. The overall design idea of resource pool is shown in Figure 2.

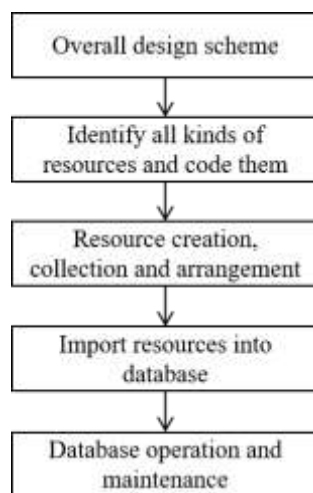


Fig.2 The Overall Design Idea of the Resource Library

English courses are offered to enable students to use English to do some basic English communication, lay a good foundation for English, and undertake students who want to go abroad for further study in the future. Therefore, the development of teaching content is particularly important, because different types of students have different needs for English learning. If all English teaching resources are mixed as a whole and the types involved are incomplete, some students will not meet their own learning needs. In order to continuously strengthen students' application of network resources, universities should also pay attention to actively establishing online classroom learning mode, and in this way, make up for the traditional teaching classroom effectively. The ultimate goal of building resource database is to serve the teaching, so the teaching needs should be considered both in content and function.

B. Content Development of Teaching Resources

Post-maintenance and regular updating of teaching websites are as important as website construction. Subject knowledge is constantly updated and improved, and teaching websites should be constantly updated to bring the most advanced, cutting-edge and authoritative knowledge to learners. Universities should establish the concept of keeping pace with the times based on the correct relationship between sharing and competition, actively strengthen ties with other schools, share English teaching resources with each other, and promote the common development of schools while improving the effectiveness of sharing English teaching resources. Compared with traditional classroom teaching, online classroom can break the limitation of traditional classroom teaching time and space, enhance the interest of classroom learning, ensure students to complete their English learning tasks and enhance their English learning autonomy. A mechanism should be established to encourage English teachers to participate in the construction of online teaching resources. Only with the extensive participation of teachers, can resources construction make rapid progress, ensure the accuracy and advancement of teaching resources, and ensure the

quality of resources to meet the needs of teaching work. The mode of providing college English online teaching resources is shown in Figure 3.

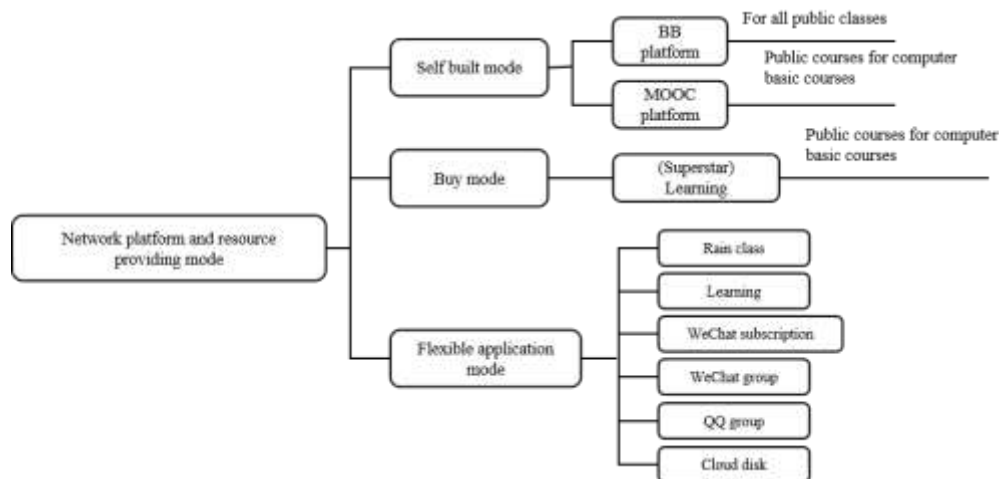


Fig.3 The Mode of Providing College English Online Teaching Resources

Network resources have many advantages, and their integration in college English teaching can promote students' learning development to a certain extent. However, teachers also need to hold a scientific development vision, objectively understand the characteristics and functions of network resources, and pay attention to the rational application of network resources. Teachers should be encouraged to actively use online teaching resources, and technicians should be encouraged to actively study online theories and technologies related to teaching resources and actively participate in the construction of network resources. The functional flow of teaching resource management is shown in Figure 4.

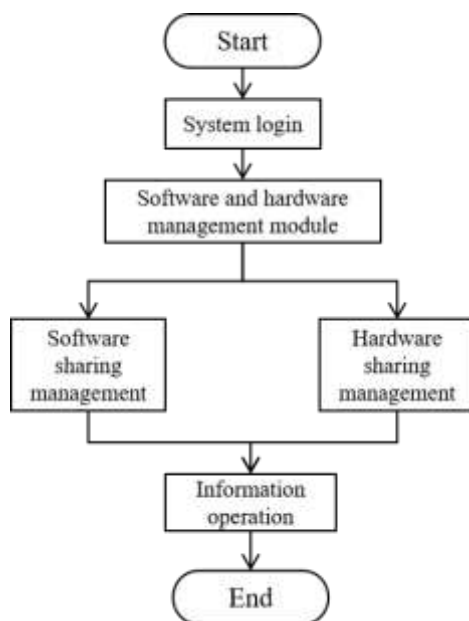


Fig.4 Function Process of Teaching Resource Management

Teachers, students and technicians who contribute to the construction of teaching resources should be given both material and spiritual rewards. Teachers should not slow down the actual teaching quality because of the application of network resources, but pay attention to the auxiliary role of network resources, make rational use of network

resources for English teaching, and effectively combine network resources with classroom teaching to continuously improve students' English learning efficiency and quality [14]. The sharing of teaching resources can not be separated from the support of excellent teaching resources, and the sharing of college English teaching resources is no exception. In the concrete practice process, we should build efficient English courses by continuously building teaching resources, and promote the effective improvement of the quality of English teaching resources. Teachers should not forget their role after applying network resources in actual teaching. They should pay attention to combining the actual teaching situation closely, and ensure the scientific and reasonable application of network resources on the basis of transferring knowledge, so as to continuously improve the effect of college students' English learning.

IV. Conclusions

Under the current network environment, in order to realize the development of college English teaching, it is necessary to actively promote the sharing and integration of college English teaching resources. Only by giving full play to their advantages and learning from each other's strengths can we promote the innovative development of college English teaching. The quality of the construction of English online education resource library directly affects the popularity of its application. Therefore, we should first attach importance to the construction of education resource database, and provide high-quality resources and services for education and teaching through campus network. Under the network environment, the integration and sharing of college English teaching resources is inevitable for the development of education. Only in the relationship of cooperation and sharing can universities learn from each other's strengths and make full use of their innovative advantages to develop. The construction of the whole resource database makes full use of modern information technology. Teachers can rely on the resource database to adopt the English teaching mode based on the combination of computer and classroom, and improve the single teaching mode based on teachers' lectures. Teachers need to improve their teaching level through sharing and communication, and students also need to improve through a large number of learning resources. Therefore, the integration of university resources under the network environment should keep up with the pace of the times and build an information platform to meet the educational development through advanced network technology.

V. Acknowledgment

The Scientific Research Project of Higher Education in Jilin Province in 2020"Integrated application and research on the synchronous/ asynchronous online teaching mode under the circumstances of emergencies" (JGJX2020D157)

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