

# Construction of Three-dimensional College English Teaching Resource Bank in Application-oriented Universities

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**Abstract:** English is a basic subject in application-oriented universities. Although the implementation of new curriculum reform has improved the English teaching level in application-oriented universities, with the advent of the information age, the disadvantages of previous English teaching based on textbooks have become increasingly prominent. It can be said that the advent of the digital age has brought new challenges to English teaching in application-oriented universities. The construction of three-dimensional English resource database can deeply integrate curriculum teaching and information technology, and it plays an important role in promoting the optimization and reform of college English teaching mode. This paper discusses the construction of integrated college English teaching resource database in application-oriented universities, hoping to bring new ideas to related workers.

**Keywords:** Application-oriented universities, College English, Three-dimensional teaching resource library, Construction strategy

## 1. Introduction

With the development and popularization of information technology and network, the teaching methods of applied colleges and universities have also changed, and the network teaching resources have been rapidly popularized in schools, especially in the construction of teaching system and multimedia courseware. Under the guidance of Internet technology, cloud technology and big data technology, the teaching development of application-oriented colleges and universities has a new direction. Only by adhering to the student-centered concept to carry out education and teaching reform, integrating and sharing English digital resources, constructing a new three-dimensional teaching resource database and creating a network resource environment supported by modern information technology for students can they acquire richer knowledge and realize their independent learning.

## 2. The significance of optimizing the construction of teaching resource database

### 2.1 Realize the sharing of high-quality teaching resources

At present, the hardware infrastructure of application-oriented universities in China has been improved, and the existing facilities and equipment are advanced, basically realizing the conditions of high-quality educational facilities, which can well meet the needs of college students. Facing the above resources, application-oriented colleges and universities should take information technology as the main carrier, integrate all kinds of teaching resources, and on this basis, build a three-dimensional teaching resource database, realize the sharing of excellent teaching resources, give full play to the role of resource database, and then promote the development of higher education <sup>[1]</sup>.

### 2.2 Promote interactive and collaborative learning

After years of development, application-oriented universities have made some achievements in their professional fields. However, at present, many universities are closed and have poor communication, which will inevitably lead to the repetition construction of resources, and the efficiency of resource use will be limited. With the help of information technology, the establishment of a three-dimensional teaching resource database can enable different universities to communicate and learn from each other,

and collaborate in the construction of teaching resources, so as to improve the quality of education and teaching in application-oriented universities.

### ***2.3 Achieve personalized and creative learning***

There are some problems in the traditional teaching methods of application-oriented universities, such as emphasizing theory over practice, emphasizing teachers' explanation over students' thinking, etc. Through the construction of three-dimensional teaching resource database, the previous single indoctrination teaching mode can be changed. Information technology education can obtain more abundant teaching resources, and these teaching resources are advanced. At the same time, teachers and students can communicate with each other in the network platform at any time to realize personalized and creative teaching <sup>[2]</sup>.

## **3. Analysis of the construction content of three-dimensional college English teaching resource database**

Application-oriented colleges and universities must adhere to the principles of interactive control, comprehensiveness and applicability when constructing the three-dimensional teaching resource database. At the same time, listening, speaking, reading, writing and translation should be included in the three-dimensional teaching resource database, and sub-databases such as course database, reading, writing, translation and examination questions should be set up.

### ***3.1 Course Resource Base***

The syllabus, courseware, case videos, etc. should all be included in the English course resource pool, and the construction of these resource pools should complement each other. College English classroom teaching should be set up according to the content of English courses. Students can browse and download the required courseware and lesson plans in the course resource library, and provide extra-curricular learning resources according to specific needs to realize students' individual learning.

### ***3.2 Reading Resource Base***

In the construction of three-dimensional resource database, we should focus on the construction of reading resource database. Reading resource database is set with reading as the theme, which mainly focuses on reading learning to build related resources. We should adhere to the principle of gradual and orderly selection of reading resources. The main components of reading resource database should be divided into several modules, such as general education and cross-cultural topics.

The general English reading resource library module focuses on the general education of college students, and its setting principle is to organically combine independent selection and inspiring expansion, combine the reading needs and teaching contents of applied college students, design reading materials by topics or grades, and also set corresponding reading test questions. The setting types of reading topics are mainly divided into five parts: environment, culture, sports health, science and technology, and education. The module of English reading resources for majors is to set up the resource pool according to the actual majors of students. The resource pool of English reading templates can be divided into three categories: art, science and engineering, and management. When selecting reading articles, it is also necessary to ensure that they are related to students' majors. Cross-cultural thematic reading modules can also be divided into three categories: China traditional culture, western culture and the comparison between Chinese and western cultures. At the same time, it is necessary to ensure that the theme of reading materials is clear when selecting content.

### ***3.3 Audio-visual and Speaking Resource Base***

It is said that the audio-visual stereo resource database will include animation, audio, pictures, videos and other multimedia teaching materials. At the same time, songs MV, TV programs and English movies can also be included in the database. English song textbooks, audio listening and test materials can be included in the audio library.

### **3.4 Writing Resource Base**

The establishment of writing example resource banks can provide data support for writing teaching. These resource banks can be divided into two modules: general style writing and applied style writing. General style writing can be divided into three styles: expository writing, argumentative writing and narrative writing; General style writing mainly includes resumes, notices, letters and other applied styles, which are commonly used in daily life. Different modules should include the basic knowledge of writing, examples and training designs of different types of English articles, and students can choose their own learning according to their actual situation and learning needs<sup>[3]</sup>.

### **3.5 Translation Resource Base**

The design of the translation example database can provide rich translation resources for students in application-oriented universities. During translation training, students' knowledge can be expanded, and they gradually have autonomous learning and strong English translation ability. According to the requirements of CET-4 and CET-6 for students in application-oriented universities, the translation resource library should be set up, which can be divided into four translation modules: general education, science and engineering, art and economics and management. The content of general translation module is mainly general education. The purpose of this resource library module is to improve students' basic translation ability, so it should include students' work, life application, contemporary social focus and some excellent traditional Chinese cultural content. For the contents of the translation databases of economics, management, art and science and engineering, students' actual professional needs should be combined in the specific selection process to improve their translation ability.

### **3.6 Student Corpus**

Student corpus is mainly the collection of students' homework materials, which can provide materials for teaching and research. Student corpus should also be divided into three sub-databases: multimedia corpus, translation corpus and writing corpus. The composition materials of students from different majors can be collected in the writing corpus; Translation assignments should be included in the translation corpus; Students' audio and video courseware can be included in the multimedia corpus.

### **3.7 Question Bank**

The test question bank should be designed in combination with the English teaching needs and curriculum requirements of application-oriented colleges and universities. It should include four or six test banks, comprehensive test banks and oral test banks, etc. The test question bank can include picture description, situational dialogue, question and answer after reading, video commentary and so on. The comprehensive test bank should contain various types of comprehensive test questions, such as reading test questions, writing test questions, translation and listening, etc. The question bank of CET-4 and CET-6 can include the simulated questions or real questions of CET-4 and CET-6 over the years. Teachers can choose test questions according to the current English learning level of students and the nature of the test they need to face, and students can also choose their own test questions for online testing<sup>[4]</sup>.

### **3.8 Teacher-Student Forum**

The purpose of setting up the teacher-student forum is to provide an effective communication platform for teachers and students. Teachers can set the course schedule through the teacher-student forum, check students' homework, or communicate with them about their studies and courses. Students can also publish their own homework in the teacher-student forum, or publish their learning experience, or upload some good English learning content they have collected to communicate with their classmates.

#### **4. The idea of improving and optimizing the construction of three-dimensional teaching resource database**

##### ***4.1 Improve the wireless network architecture and build an integrated data acquisition and exchange center***

First of all, application-oriented universities need to expand the coverage of the internal wireless network, so that the network capacity and bandwidth can be improved. At the same time, firewall management and security certification should be strengthened to create favorable conditions for data exchange and collection. Secondly, we should improve the teaching platform, break through the disadvantages of data isolated island in the past, and build an integrated data acquisition and exchange center. Through the establishment of unified campus data standard, the data integration of teaching system is strengthened; Build and improve the mechanism of data collection, maintenance and management, and integrate system monitoring and log resources to improve the convenience and accuracy of data collection. In addition, we should make full use of students' learning terminals to ensure that the construction of three-dimensional learning resource bank is more diversified<sup>[5]</sup>.

##### ***4.2 Use big data to reform and build three-dimensional teaching resources***

With the help of inverted data technology, the course teaching data is analyzed, and the specific learning situation of college students is fully understood. Through the integrated management of school educational administration management system data, student learning system data, tracking and statistics of students' course information and attendance content, on this basis, targeted three-dimensional teaching resource database is established; In addition, it is necessary to track and analyze the employment data of graduates, learn about the employment situation of students of different majors, and build an information exchange platform to realize the communication among students, enterprises and schools, so as to understand the specific needs of professionals in the job market. On this basis, it is necessary to optimize the content of three-dimensional English teaching resources in time, so that teachers can make use of the cutting-edge teaching content of the resource library to carry out teaching and improve students' professional ability and social competitiveness.

##### ***4.3 Try to independently develop quality courses***

The development of excellent courses can create a good foundation for students' preview. Therefore, application-oriented universities should also develop the network resources of excellent courses to ensure that the course ideas are clear and the teaching contents can conform to the development of modern society. At the same time, they should integrate the excellent contents of English teaching and research achievements and absorb advanced teaching experience into them. Such courses can stimulate students' interest in English learning and enable them to master more abundant English knowledge and skills. Through the construction of excellent courses, the pertinence of the contents of the three-dimensional resource database can be improved, so that students can preview English knowledge on the Internet through the example math resource database, and then ask questions in class on the difficulties existing in its operation, and finally teachers can answer questions. The excellent course content can also be designed as micro-video, which will make it more convenient for students to obtain resources and avoid the difficulty of downloading due to too long video content<sup>[6]</sup>.

#### **5. Conclusion**

To sum up, the construction of integrated college English teaching resource database can provide students with independent learning platform and more educational resources for teachers' classroom teaching. At the same time, the resource base can also achieve the trinity training goal, in which students can not only learn basic knowledge, practice listening, speaking, reading, writing and translation, but also expand their own cultural undertakings through reading, and have high cultural literacy. Therefore, application-oriented colleges and universities should actively invest in the exploration of the construction of three-dimensional teaching resource database to promote the modernization of English teaching mode.

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