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Development and Construction of Digital Resources for College English in the Context of Information Technology

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Abstract: *In the process of education reform, information technology is also developing continuously, and the application of digital technology to the field of education is highly valued. In this way, this paper analyzes the concept of college English education in the background of information technology the creation of a digital teaching resource base for college English, and the development of English digital resources.*

Keywords: *Information technology*; College English; Digital resources; Resource development

In the process of the continuous reform of university English teaching, the education informatization has been put forward, and people have gradually realized that using the information technology environment to achieve deeper reform of education and improve the quality of teaching of school subjects at all levels is still the focus of the healthy development of education informatization. At present, all universities across the country have created perfect campus networks, laying the hardware foundation for the creation of a digital campus. Creating a subject resource library is the main component of the digital campus construction, and how to make the framework design and function realization of the resource library is the focus (Su, 2020). In this way, this paper develops digital resources for college English to promote the development of teaching informatization.

The significance of the construction of digital resources for college English

The Ministry of Education has issued the requirements of "Internet+education" and "using information technology to improve teaching methods", which promote the creation of digital teaching resources for college English. It includes the use of modern information technology to create a resource-sharing platform, and the creation of a resource bank in two dimensions: vertical and horizontal.

Construction significance of teaching resource library

One of them is to share teachers' teaching resources. Teachers' teaching resources are all self-centered and do not want to share with other teachers. Using the creation of a resource library can integrate teachers' resources with those of teaching and research departments, which can realize the aggregation and sharing of teaching resources and improve the shareability, organization, and utilization rate of existing resources in the school.

Secondly, sharing teaching resources of school-enterprise and inter-school. Make similar colleges and universities create standards with different professional cooperation enterprises to co-construct the teaching mode of school-enterprise cooperation courses with professional needs, so that the original independent and closed teaching resource system of each school can be broken, thus promoting the sharing of teaching resources between schools and between schools and enterprises (Zhu, 2020).

The concept of co-construction of teaching resources library

One of them is to put students at the center. With the principles of supplementary learning, guidance, and teaching, the content vocational and practicality are emphasized, and the learning platform that is commonly used, available, and alive for students is created in a hierarchical and graded manner. Classroom teaching resources of teachers from different schools are aggregated in the resource library, thus enabling students at different levels to find learning resources that meet their needs. Practicality is emphasized in the process of collecting corpus and content to fully demonstrate hierarchy and vocation.

Second, is the concept of dynamic education. Through the horizontal aspect, we create a resource bank of curriculum center, practical teaching, industry English, basic English, cultural expansion, practical teaching, and school-enterprise cooperation, including basic English to industry English, theoretical teaching, and practical education. Through vertical aspect analysis, the resource library is realized according to listening, reading, writing, and translating, and different skills are also set up such as skill analysis, precise sentence expression, vocabulary training, listening training, reading training, etc., to train students' language skills and make them improve their comprehensive use of knowledge. Through capacity analysis, the resource library materials mainly include resources with the help of style and original resources. 40 original video resources, 50 audio resources, 10 animation resources, several sets of original lesson resources, exercise papers, and graphic pictures and texts. Most of the resource materials can share the videos and courseware with the different lectures and teaching materials of the instructors themselves (Wang, 2021).

Development and functions of university English teaching resources

Most teachers and students are relatively unfamiliar with the concept of teaching resource libraries, and their cognition is rather superficial. In the process of interface design, teachers tend to be easy to operate, simple and practical; students tend to be easy to search for and fashionable. In terms of resource types, teachers prefer extra-curricular videos and courseware, and students prefer examination materials and videos. In terms of function realization, students and teachers value interactive functions and multiple searches. Figure 1 shows the development platform of university English teaching resources. Through investigation and analysis, the design of the resource library framework and function realization are realized.

The resource library includes digital resources such as courseware, audio, video, picture, text, etc. Created according to the type of resources, the structure of the resource library is constituted through video library, text library, courseware library, and audio library.

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The text library includes various text resources and sets up word banks for books, textbooks, papers, test questions, etc. The textbook library contains various text materials related to textbooks; the book library contains English reading materials; the test question library contains materials for TOEFL, English 4-6, and other large English exams at home and abroad; the thesis library contains academic papers on textbooks and majors (Yong, 2021).

Audio library including various audio resources, setting up a song word bank containing audio materials of university English textbooks, English songs of various genres, and audio materials of listening exams of various exams.

Video library including various video resources, including Disney animated movies, English national TV programs, well-known news radio programs; fine courses of lectures by famous English teachers, etc.

The courseware library includes various levels of courseware materials, including reference courseware for college English textbooks, preparation courseware, excellent courseware for teachers, courseware creation tools and materials, etc.

To give full play to the role of English digital resources, the campus network is used as a backing, and the development and construction of university English digital resources are realized using a generous and simple design style and observing the design principles of use aspect and outstanding features (Liu, 2021).

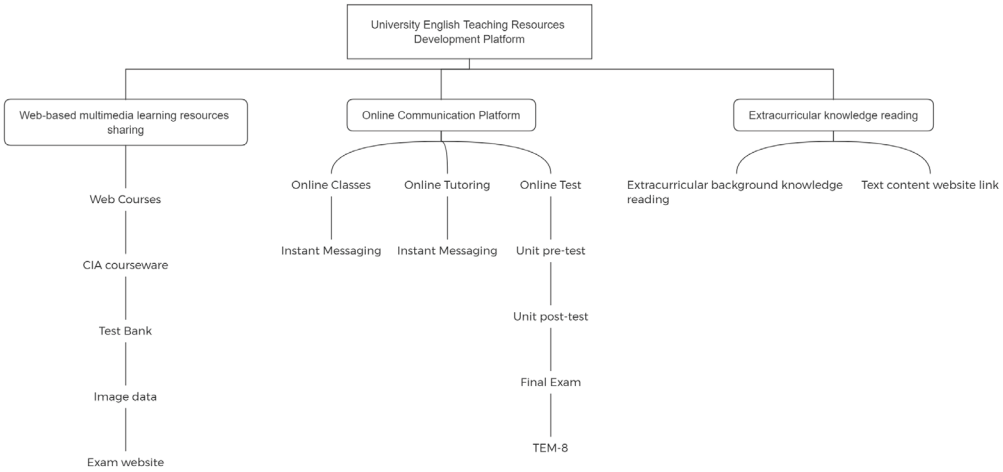

Figure 1 University English teaching resources development platform

Development of university English teaching resources

Teaching resources development strategy

(1) Contextualization of content

In the process of designing English teaching resources, attention should be paid to language input and output from form to content, so that students' ability to use mobile networks to achieve energy-saving training in English listening and speaking can be strengthened, and resources such as SPOC, catechism, and microlearning can be used to learn English cultural knowledge. In addition, project-based and contextualized learning content designs are realized to facilitate students' collaborative learning in a group format. Whether it is an introductory video that students watch before class or a case study or project in the classroom, students can create real-life situations and English learning scenarios. Simply put, this means that student learning is integrated into real-life problem situations, making learning task-based, problem-based, and context-based, creating knowledge in real-life situations that can be transferred and applied in similar contexts. Group members improve students' collaborative learning and problem-solving skills through the project process in English from identifying members, assigning tasks, selecting topics, and planning progress (Zheng & Li, 2021).

(2) Tool interactivity

The integration of metacognitive elements such as real-time e-learning portfolios in the design of ELT resources is very beneficial in enabling students to plan, assess and monitor their own English learning processes and stages. The ability of students to independently obtain online English learning resources, platforms, and tools in the process of self-directed learning enables the level of modern information technology use and online self-directed learning to be improved. Because ELT resources based on deep learning are designed to solve learning community problems as a basis, interactive evaluation tools and other methods of supporting learning community evaluation enable students to conduct peer assessment, effectively evaluate community learning activities, and enable community members to improve their independent learning skills and critical thinking (Wu, 2020).

(3) Platform personalization

Deep learning for student development is required to enable students' personalized needs to be met. Various ubiquitous learning methods in the context of information technology-based teaching provide tailor-made and high-quality teaching services for student groups, and in the process of English teaching resource platform development, the introduction + self-made approach should be observed, using the use of high-quality university English MOOC course resources and creating free SPOC courses. No matter whether MOOC or SPOC has high-quality micro-video, using sound, animation, language, text, and other multimedia embedded ways to show. The video lectures have contextualization, which can stimulate students' participation in learning and realize the construction of their knowledge. In addition, students are not limited by time and space in using the online teaching platform, so they can realize personalized independent learning. Students make use of online topics for discussion and reflection to internalize knowledge and improve their problem-solving and independent learning abilities.

Digital English teaching platform design

The digital English teaching platform can provide students with new and diversified online multimedia learning modes and resources. The platform mainly includes settings for online learning content, student assignments, online independent learning, learning records, online classes, resource centers, testing systems, etc.

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Teachers manage and supervise students' online situations, learning records, online records, grade ranking, and grade analysis (Shao, 2020).

Design of digital platform courses

Create English independent learning resources through the digital platform, such as the Advanced English textbook as an example, to analyze how to teach through the digital teaching resource base.

First, creating a library of supporting test questions, teaching courseware, picture libraries, a library of English major 8 examination systems, audio, and video materials.

Second, analyze the background knowledge related to the text. Through the audio database, the national anthems of Britain and the United States during World War II were selected to be played for the students. Most of the students had never heard of them, so they were able to stimulate their interest. After that, the video library was used to find videos from the World War II era, such as Saving Private Ryan. The video materials were played for students so that they could feel the exciting moments of the war and fully appreciate the real situation of the war. Finally, the background knowledge related to the text is introduced through the PPT lesson, and pictures are found in the photo gallery, such as pictures of the Bismarck warship and the Prince of Wales.

Third, when explaining the text to students, the PPT teaching materials are used to fully demonstrate the knowledge points of grammar, vocabulary, and modification, and to explain the content of the text in detail.

Fourth, in the process of exercises and tests, test questions and exercises related to the text are selected through the test bank.

Fifth, set up a discussion forum for question and answer activities.

Digital teaching practice learning

In the process of students' online digital independent learning, they enter the system through the campus network, check the teaching content of the teacher of the next class through the system, and realize the independent learning tasks according to the online teaching plan. In the process of independent learning, the learning plan is adjusted according to the content of the teaching materials and their learning progress. If students learn efficiently, they can use digital resources to improve their learning in the content required by the learning plan. The main role of the teacher in the independent learning process is service management, supervision, and guidance.

Teacher Classroom Interviews

The teacher's classroom interview focuses on checking the effect of students' independent learning and realizing summary and communication with students' feedback. In the process of classroom face-to-face teach-

ing, the teaching activities carried out include: explaining to students the key points of the unit and the text; checking students' learning of the unit and realizing the answer to the questions of the section; checking the completion of students' homework in time and making an objective public evaluation; explaining writing methods, reading methods, translation skills and listening skills (Dong, 2020).

Strategies for the construction of university English teaching resources

Sharing creation of English digital resources

Schools should create a good English environment with the laws and characteristics of human acquisition of language to promote students' learning of English. The English learning environment is not only the learning place of the whole school but also the social environment. The interactive environment of students in class and the interactive activity environment between teachers and students belong to the focus of English learning environment optimization. Colleges and universities should develop various extra-curricular communication activities that make students learn English beneficial, such as online English learning centers, writing contests, English speech contests, singing contests, etc. Making English communication activities combined with online resources solves the problem of single online learning, and also enables students to strengthen their mastery of English and optimize students English learning environment throughout the whole. Students find materials and learn knowledge through the English digital resource library, and also can make their learning results in the resource library you upload, through the management staff audit in the database entry.

Create a digital resource network

In creating English digital teaching resources, English acquisition theory should be used as the basis for creating teaching resources in combination with the learning environment in which students live. Student learning behavior refers to the double-loop learning behavior, where student behavior is set to become a specific result that they want to achieve in the English learning process and to directly face difficulties and solve them. In this way, it is indicated that the process of creating ELL resources should involve not only the teacher but also the students. English learning as basic language skills learning, and language acquisition requires a unified process of student subjectivity and objectivity. Therefore, students' subjective initiative is particularly important and requires students to take the initiative to absorb the knowledge they learn to fully internalize the language knowledge.

Open teaching concept

In the process of designing the digital resource platform for English teaching, teachers are required to open up their teaching philosophy, break through the concept of achievement teaching, and realize the educational reform strategy centered on students' development. Take students' actuality as the basis and students' learning efficiency as the focus. Colleges and universities according to their advantages, are in the process of creating mathematics resources targeted to create their special teaching resources. Avoid duplication in creating resources, but also be able to share the results of school teaching and research to promote the university itself.

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The leaders of colleges and universities should also encourage teachers to be able to actively participate in the inter-school English digital teaching resources sharing construction to achieve the specification and integration of teaching resources (Xie & Tang, 2021).

Conclusion

The integration of information technology and curriculum is a reform developed in the field of teaching and education or the process of deepening the reform of education. Creating foreign language teaching resources and realizing the integration of information technology and college English courses are the main directions of English teaching reform in colleges and universities or the focus of improving students' English application skills.

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