### Research on the Construction of Virtual Learning Environment and Space for College English Under the Digital Background

Yingchun Zhang<sup>1</sup>

#### **ABSTRACT**

In the wave of digital education reform, the emergence of virtual learning environments and spaces has provided new support for college English teaching, and has also stimulated the resource needs, curriculum needs, teaching needs, and interaction needs of both teachers and students. Therefore, in further promoting the upgrading of teaching quality, a comprehensive application of new technologies should be used to construct a sound English virtual learning database, micro particles, cloud platforms, and large communities, so as to form a more complete virtual learning environment and space, and help students improve their English learning efficiency by leaps and bounds.

Keywords: Digitalization, College English, Virtual learning environment, Space.

#### 1. INTRODUCTION

In the wave of digital education reform, the effective construction of virtual space and the strong support of digital resources have effectively promoted the diversified development of college English teaching and provided strong support for students' learning in universities. This article will conduct a profound analysis of the construction of virtual learning environments and spaces for college English from the perspective of digital development, in order to deeply meet learning needs and effectively leverage the enormous effectiveness of digitization.

## 2. THE CONSTRUCTION STATUS OF VIRTUAL LEARNING ENVIRONMENT AND SPACE FOR COLLEGE ENGLISH UNDER THE DIGITAL BACKGROUND

College English courses occupy a crucial position in China's higher education system and are an essential discipline for shaping talents with an international perspective. [1] In the wave of digital reform, college English courses have undergone multiple deepening reforms, effectively completing

a deep level of teaching transformation. Multiple virtual teaching methods such as MOOC teaching, SPOC blended learning, and remote teaching have been introduced, providing students with comprehensive teaching resource support, teaching tool support, and teaching ecology support. Based on the effective application of digital technology, students can engage in efficient English learning, English application, and English expansion in a more open information space.

It is not difficult to find from current practical teaching that the comprehensive use of various virtual resources, digital environments, and remote spaces has become a norm in the process of college English teaching. Whether in offline teaching or online teaching, both teachers and students are very willing to use diverse digital resources to assist learning and training, in order to achieve higher levels of English learning efficiency. I believe that under this new trend, college English will gradually enter a deep stage of digital reform, achieving a synchronous leap in teaching and learning efficiency.

<sup>&</sup>lt;sup>1</sup> School of Foreign Languages, Zaozhuang University, Zaozhuang, Shandong, China

# 3. DEMAND ANALYSIS OF CONSTRUCTION OF VIRTUAL LEARNING ENVIRONMENT AND SPACE FOR COLLEGE ENGLISH UNDER THE DIGITAL BACKGROUND

With the effective application of new teaching forms and the profound transformation of the English learning environment, students have gained a new understanding of English learning under the digital background, which has led to a series of virtual learning environment needs, resource needs, space needs, and even ecological needs. Based on feedback from teachers and students, it can be found that the current needs mainly focus on the following four aspects:

#### 3.1 Resource Demand

Resource demand is the most fundamental and core requirement in the process of digital reform. Teachers and students urgently need strong support from a massive amount of high-quality resources in the process of virtual learning, in order to promote personalized, precise, and differentiated learning and development.

#### 3.2 Course Requirements

In the new process of digital reform, college English as a course still has its systematic characteristics, so it is necessary to allocate selected course resources based on English course requirements, in order to effectively utilize high-quality resources to improve the effectiveness of course teaching and learning.

#### 3.3 Teaching Needs

In the new digital ecosystem, the demand for open teaching based on high-quality platforms is becoming increasingly urgent. Students and teachers need to flexibly switch between online, offline, and blended learning processes in order to efficiently utilize teaching and learning opportunities and continuously improve the effectiveness of English learning.

#### 3.4 Interactive Needs

In a more open digital ecosystem, whether it is classroom teaching, virtual learning, or teaching evaluation, it needs to be based on equal interaction between teachers and students, and also requires multiple interactions in a more open digital environment. This comprehensive demand based on interaction is becoming increasingly urgent.

# 4. SUGGESTIONS ON THE CONSTRUCTION OF VIRTUAL LEARNING ENVIRONMENT AND SPACE FOR COLLEGE ENGLISH UNDER THE DIGITAL BACKGROUND

In the face of resource demands, course demands, teaching demands, and interactive demands, when constructing a virtual learning environment and space for college English, efforts should be made to meet the needs, form a system, construct a complete digital teaching new ecology, and effectively promote the synchronous improvement of the teaching quality and learning efficiency of college English subjects. In the process of practical teaching reform, teachers can try to systematically improve and construct from the following four dimensions.

## 4.1 Resource Library, Dynamically Updating Data

In the process of teaching college English courses, there is a strong demand for high-quality resources with stronger practical requirements. Whether it is a corpus resource library, a situational resource library, or a video resource library used for course teaching, they all need to be updated in real time to keep up with the current learning situation and external changes. Therefore, in the context of digitalization, the construction of a virtual learning environment and space for college English must be based on a dynamically updated database.

In practical teaching, teachers should continue to introduce high-quality teaching and related resources through the Internet channel, and actively mobilize students to share high-quality English learning materials, so as to enable teachers, students and relevant parties to continuously provide new resource support for the resource pool through the effective introduction of the reward and punishment mechanism of the resource pool, and ensure that the resource pool has stronger timeliness and adaptability. In addition, in the daily teaching process, teachers can also introduce generative classroom resources, homework resources, testing resources and other learning resources into the database in order to achieve more ideal practical application effects.

## 4.2 Micro Particles, Precise Docking Learning

Due to the strong systematicity of the college English subject, in the process of allocating course resources, a fine-grained system construction can be used to accurately meet students' learning needs. Teachers can design flexible teaching plans based on the requirements of college English subject teaching, and then develop micro courses, micro videos or knowledge particles that match the knowledge points of classroom teaching, and construct a complete teaching plan in a flexible combination manner. This course design method, based on small-scale knowledge particles and flexibly combined according to the teaching syllabus, will enable teachers to better utilize digital resources, carry out diversified innovation in teaching, and accurately adjust teaching according to feedback from learning situations. Make the classroom a place for students to absorb, internalize, and transfer English knowledge and skills. [2] With the support of a massive amount of high-quality micro particles, college English classrooms will become more exciting, students' interest in learning will become stronger, and their English learning outcomes will naturally improve.

### 4.3 Cloud Platform, Providing Remote Support

In the process of constructing virtual learning environments and spaces for college English, high-quality cloud platform systems are indispensable. This is mainly because in the current English teaching process, the demand for distance learning, blended learning and online learning is becoming more diverse, coupled with the continuous development of mobile Internet technology, students and teachers have a more diverse choice of cross space-time interaction. In this situation, whether it is to improve the convenience of teaching or to enhance the effectiveness of learning, it is necessary to construct a high-quality cloud platform that can connect all parties anytime and anywhere.

In addition, the rich and diverse learning resources, learning tools, and learning devices also require effective integration, matching, and docking based on a more systematic cloud platform. Therefore, cloud platforms can be seen as the cornerstone of virtual learning environments and spaces for college English, and are the fundamental

guarantee for providing various types of remote support.

A high-quality cloud platform should not only include rich multimedia teaching materials, simulation tests, interactive exercises, etc.[3], but also provide data analysis, real-time interaction, and feedback functions, which can assist teachers in real-time tracking students' learning progress and analyzing and diagnosing their learning situation, thereby providing technical support for teachers to adjust teaching strategies and methods. Students can also continuously adjust their learning strategies based on real-time feedback. Thus, teaching and learning efficiency can forge ahead synchronously.

#### 4.4 Large Community, Forming Multi-Dimensional Interaction

In the process of constructing virtual learning environments and spaces, a super large open community should be built based on the principle of equality, supporting teachers, students, and relevant individuals to engage in online discussions, interactions, exchanges, evaluations, and sharing. The urgent need for this super large open community is significantly related to the open nature of the English subject and is the key to constructing an online English language ecosystem. Teachers can try to utilize the open nature of university campus networks to construct a hybrid open community that spans disciplines, majors, and grades. Through diverse community activities such as English learning, English training, English application, and English creation, we aim to guide students towards deeper English learning and application.

At the same time, when conducting academic evaluations and work reviews, diverse evaluations can also be conducted based on an open community. allowing students and teachers to jointly comment on the work itself, forming a more intense evaluation interactive atmosphere. With the strong support of this large community, students' interest in learning English will be effectively mobilized, and the high-quality language environment provided by the large community will also promote the steady improvement of students' English learning. This reform path, which utilizes collective intelligence to construct a high-quality ecosystem and achieve individual breakthroughs, will fully leverage the driving force brought by digital technology to achieve a profound transformation in the virtual learning mode of college English.

#### 5. CONCLUSION

In the construction process of virtual learning environment and space for college English, a dynamically updated database should be formed, high-quality teaching resources should a complete continuously introduced, and curriculum teaching system should be formed through granular combination methods to maintain the diversity of classroom teaching. With the stable support provided by cloud platforms, an open community for English learning should be gradually constructed, allowing students to learn, interact, communicate, evaluate and share in a better English language environment. Finally, with the collective effort, individual bottlenecks can be overcome, and the quality of English learning can be effectively improved.

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