Exploration and Practice of Ubiquitous Teaching Mode of College English

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Abstract: This research creates an environmental resource system and teaching model for ubiquitous college English learning by creating the media technology conditions for ubiquitous college English learning, allocating resources, and optimizing college English teaching design. Through the extensive application of this model, the problems of the compression of class hours in college English teaching, the lack of ubiquitous English learning resources and platforms, the lack of students' autonomous learning ability and weak English application ability have been effectively solved. It improves the efficiency and effect of college English teaching, and cultivates a team of teachers with high language teaching ability, educational technology level and innovative spirit. This model has the characteristics of practicability and innovation, and its staged achievements have been publicized and reported by the media for many times, which has strong reference and promotion value for the reform and practice of ubiquitous college English teaching in China.

1. Introduction

College English course is one of the compulsory courses for non-English major undergraduates at the university level. For a long time, the teaching practice has been restricted by factors such as insufficient class hours and low participation in large class teaching, resulting in poor learning interest and low self-learning ability of students. At the same time, a new contradiction is formed between the information-based teaching ability of college English teachers and the increasingly updated new technology.

"Currently, the research on ubiquitous learning of college English presents a situation in which theoretical research comes first, application practice starts, and the research system does not yet exist. It has gradually transitioned from the definition of meaning and description of features to a more in-depth level of design theory and development framework. However, there are still some problems." [1] "At present, there is no large-scale pilot and promotion of college English ubiquitous learning in domestic colleges and universities. Lack of support and feedback from actual cases." [1]

Based on the above status quo, this research deeply integrates college English courses with modern educational information technology, guided by the concept of "student-centered", innovatively focuses on multiple teaching scenarios in the learning of college English courses, and makes full use of mobile Internet and BYOD (bring your own device), deeply excavate teaching big

data and small data, promote teachers' information-based teaching ability and digital resource construction through teacher team building, and explore a new model of college English ubiquitous teaching suitable for the information technology environment. Students' participation in the classroom has been greatly improved, their autonomous learning ability has been improved, and the learning effect has been obvious, and the ubiquitous learning model has gradually formed. This research affects more than 10,000 students, forming a new ecological balance between teachers and technology, and gradually forming a digital resource library for college English learning. At the same time, through conferences, forums, live broadcasts, lectures and WeChat groups, the practical experience has been shared with teachers in many colleges and universities.

2. Theoretical basis

"In 1988, after the concept of ubiquitous computing proposed by Mark Weiser, the father of computer, the education circle extended the concept of ubiquitous learning (Ubiquitous Learning), also known as 7A learning method, that is, using the most advanced information technology means , so that anyone (Anyone), anywhere (Anywhere), any time (Anytime), in any way (in Anyway), through any device (Any device) get any learning information (Any contents) and any Learning support (Any learning support). This theory has greatly released the solidified concept of education, allowing seamless connection between life and learning."[2]

"Ubiquitous learning seamlessly connects educational theory with technology, and creates a space- and time-limited education system with the characteristics of permanence, accessibility, immediacy, interactivity, authenticity of teaching activities, adaptability, and collaboration. A highly autonomous learner-centered learning environment satisfies the inherent requirement that learning itself is ubiquitous, that is, learning occurs everywhere, learning is everywhere, and learning resources are everywhere."[3]

The ubiquitous learning model is deeply in line with the reform of college English teaching. English learners can obtain the required English learning content anytime and anywhere, conduct real-time interactive learning through teaching platforms and tools, and obtain timely evaluation feedback. In order to effectively improve the effect of college English learning, cultivate students' autonomous learning ability and lifelong learning ability, and promote the improvement of college English teachers' comprehensive teaching skills.

3. Exploration and practice of ubiquitous teaching mode of college English

3.1. Preparation stage

The College English Course Teaching Requirements and College English Teaching Guidelines (Draft for Comment) put forward policy requirements for the reform model of college English, and encourage the active promotion of the reform and practice of college English online informatization teaching. The departments of the research team actively organize team teachers to participate in various teaching seminars, encourage teachers to investigate and study, apply for projects, and create a strong atmosphere for information-based teaching and research. Equipping researchers with teaching tools, providing scientific research funds, vigorously supporting the development of college English informatization teaching and research team teaching and research activities, and effectively ensuring the continuous and effective development of team activities. The college English learning platform, test question bank, and digital learning materials accumulated in the early stage provide good network resources for the research. The development and construction of college English teaching in recent years has laid a solid foundation for the implementation of team achievements. The multimedia college English network classroom provides a good hardware

guarantee for this research. The popularization of mobile Internet and mobile intelligent terminals provides network and equipment support for the development of ubiquitous teaching research.

3.2. Practical stage

3.2.1. Under the guidance of the "student-centered" concept, conduct demand analysis.

Guided by the "student-centered" concept, this paper analyzes the feasibility and available resources of ubiquitous college English teaching, establishes assumptions about the target teaching objects through interviews and research, and analyzes the goals of ubiquitous college English teaching., tasks, process and application requirements, etc., provide the basis for the creation of later teaching scenarios and the design of teaching activities.

3.2.2. Create multiple teaching scenarios to help learners achieve knowledge construction.

Combined with the characteristics of English subjects, the teaching scenarios are divided into formal teaching scenarios and informal teaching scenarios. The teaching form has changed from the knowledge teaching type to the guiding and guiding type, and the teaching content has changed from the knowledge provided by the textbook to the materials that can help students to construct meaning actively. Teachers are transformed from imparters of knowledge to guides of learning activities, realizing the transition from students acquiring knowledge to students constructing knowledge.

Formal teaching scenarios are further divided into classroom teaching, morning reading and evening listening activities, and morning reading month activities. The classroom teaching is further divided into before class, class and after class. In classroom teaching, according to the principles of multimedia teaching design, according to the teaching objectives and teaching content, BOPPPS, peer teaching, split classroom, flipped classroom and other teaching methods are adopted respectively. Various digital learning resources are provided to students before and after class. In the morning reading and evening listening activities, students are provided with rich listening and speaking learning content through the WeChat public account. In order to cooperate with various activities at all levels in the school, the WeChat public account is also used to push various notifications and activities to students.

In informal teaching scenarios, it is mainly divided into mobile virtual communities, autonomous learning and subject competitions. Establish a curriculum circle through a software to enhance teacher-student interaction and student-student interaction, and then promote inter-school collaborative teaching and research. In the use of fragmented time, students can obtain personalized digital learning resources through WeChat public account, online courses, campus FTP and APP. At the same time, students are encouraged to actively participate in various discipline competitions at all levels.

3.2.3. Combining multiple factors to carry out ubiquitous teaching design and technical environment design.

Combined with factors such as digital resources, tools, platforms, technical infrastructure, constraints, support and services for carrying out ubiquitous college English teaching activities, the ubiquitous college English teaching activities and technical environment are designed. Use the ARCS model (Motivation Analysis Model) to stimulate and maintain learners' intrinsic motivation, and integrate fragmented knowledge through learners' sharing, collaboration, inquiry, and zero-storage integration.

In terms of teaching design, fully consider the needs of learners and the current situation of

college English teaching, conduct sufficient research on learners and form learner portraits. Design teaching according to learning needs and teaching objectives. In terms of teaching content, it breaks the limitations of traditional teaching materials, makes full use of multimodal resources and formative resources for expansion, and develops digital teaching materials and online courses to enhance teacher-student interaction and student-student interaction. While using traditional teaching resources and digital resources, it organizes and develops generative resources. And make full use of online teaching management platform, artificial intelligence writing correction platform, WeChat public account, course virtual community, WeChat applet, etc. for teaching management and interaction. And a number of teaching activities are included in the evaluation method, and the summative evaluation and formative evaluation are fully combined.

3.2.4. Team division of labor and cooperation, co-construction and sharing of resources, and promotion of efficiency improvement and sustainable development.

Give full play to the expertise of teachers in the college English informatization teaching and research team, complement each other's advantages, divide labor and cooperate, realize the co-construction and sharing of resources, and promote the improvement of teaching efficiency and the sustainable development of teaching mode. And gradually carry out inter-school collaborative teaching and research, learning and exchanges, promote more extensive cooperation and exploration and innovation, and provide stronger support for the sustainable development of the model. The research directions of team members involve information technology, curriculum and teaching theory, teaching methods, etc. The team regularly conducts teaching and research activities to fully explore the expertise of each teacher in the team, so that team members can make up for shortcomings and improve information-based teaching design capabilities and resources. development capability. At the same time, the inter-school communication through the community and other forms also provides a broader idea for research. Through exchanges and joint project research, it improves each other's teaching design ability and teaching research ability, and promotes the sustainable development of the team.

3.3. Research results

3.3.1. Break through the limitations of traditional classroom teaching and establish a ubiquitous teaching scene with a wide range of applications.

By analyzing the needs of learners, breaking through the limitations of time and space, the college English teaching scene is innovatively divided into formal teaching scenes and informal teaching scenes. Combined with the analysis of relevant constraints, the design of teaching activities and the design of technical environment are carried out to help learners build a ubiquitous learning model. The research covers more than 6,000 students, and hundreds of thousands of off-campus students benefited. The ubiquitous college English classroom teaching based on modern educational information technology has a total of more than 16,000 hours (not included in informal teaching scenarios). Among them, on the WeChat public platform, there are more than 6,000 fans, a total of nearly 400 issues, more than 700 graphic messages, and a total reading volume of nearly 200,000 people. And assisted in the completion of the "Morning Reading and Late Listening" activity resources and the "Morning Reading Month" activity push for all freshmen in the school.

3.3.2. Comply with the trend of technological development, take advantage of the situation to promote integration, and benefit from a wide range.

In the process of integrating modern information technology with college English teaching, we keep up with the rapid development of hardware and software and adjust teaching design in a timely manner. From stand-alone multimedia courseware to campus LAN, from personal computers to mobile intelligent terminals represented by smart phones, from WeChat public platform to mobile virtual community, from multimedia courseware to mobile teaching, leveraging strength and turning "disadvantages" into "advantages" ". The mobile college English teaching practice with rain classroom, blue ink cloud class, excellent college, and correction network as the main platforms has radiated more than 4,000 students in the school, released nearly 5,000 resources, and carried out nearly 2,000 teaching activities. According to big data feedback, the average activity of team members to carry out mobile teaching is more than 99% of teachers in the same teaching tool platform. Using the mobile virtual community to create a course circle, guide more than 600 students to carry out independent learning activities. At the same time, the "New Horizons College English Audio-visual Circle" was established to carry out inter-school collaborative teaching and research with teachers from many colleges and universities across the country. Using the FTP of the campus local area network to complete the construction of the digital learning resource library and the maintenance of the FTP space learning content for the teachers and students of the whole school, upload nearly 300 videos and more than 300 documents, which benefit teachers and students inside and outside the school.

The ubiquitous teaching of college English has formed a normalized model and is relatively stable. The students taught (instructed) by team members have won more than 10 special prizes, first, second and third prizes, and excellent (winning) awards in municipal and above discipline competitions. Many students won the second and third prizes of the 9th National College Student Computer Courseware Competition. Students highly agree with this teaching model and the ubiquitous learning environment created. 93% of students believe that the ubiquitous teaching model has mobilized students' enthusiasm for learning and improved their learning effects.

3.3.3. Teamwork, promoting teaching through research, ensuring the sustainable development of the model, with a large radiation area

Give full play to the advantages of the team, feed back teaching practice through theoretical study, project research, participate in and guide competitions, inter-school exchanges, etc., spread ideas, and explore a ubiquitous college English teaching model that adapts to the modern information technology environment. It improves the informatization ability and literacy of teachers and students, and ensures the sustainable development of the model. By creating the media technology conditions for ubiquitous learning, configuring and integrating resources, optimizing teaching design, etc., an environmental resource system and teaching model for ubiquitous college English learning have been created. Since the implementation, the students' autonomous learning ability and English language application ability have been significantly enhanced, and the teachers' informatization teaching level has been significantly improved. The team teachers have won many awards in various multimedia courseware competitions across the country.

This model has been extended to off-campus, providing a paradigm reference for the reform of college English informatization teaching in sister colleges across the country. Some teaching activities are added to online courses in the form of cases, which will continue to be promoted nationwide. The flipped classroom practice case based on teaching tools won the second prize in the cloud teaching case collection. This enables the concept to be spread and has a wide range of

influences, and the experience has been used for reference by teachers in many colleges and universities. One of the team teachers won the title of "Top Ten Charismatic Teachers in Beijing", and participated in the "Education Moker Alliance", completed the training of teaching instructors, qualified as teaching instructors, and will communicate with more teachers across the country. The team teachers have also been hired as expert consultants for a number of technology companies, participating in the research and development of teaching tools, and laying a technical foundation for subsequent teaching. The free learning space and endless learning resources created by teachers realize independent learning in the true sense, meet the needs of students' personalized and diversified learning, effectively improve students' English learning effect and language communication ability, and provide a good foundation for future students. Lay the foundation for lifelong learning. The teaching team shared practical experience through the public WeChat platform and went to many colleges to share practical experience. The team's practical experience was reported and reprinted by China Education Informatization Online and Sohu Education.

4. Conclusion

This research is based on the process of systematic research, practice and harvesting by the university English informatization teaching and research team of Beijing Institute of Petrochemical Technology, and is also in the process of continuous construction and harvesting. On the basis of sufficient preliminary research on learners, learner portraits are established. Through the analysis of the environment and equipment, combined with teaching objectives and semester needs, teaching design is carried out based on the ubiquitous learning theory. Deeply excavate existing teaching and online teaching resources, make full use of generative resources, and further develop digital teaching materials and online courses. Integrate teaching evaluation into the whole teaching process, and fully integrate the ideological and political elements of the curriculum. "Through ubiquitous ecological intelligent learning, students' knowledge and ability structure and learning methods have been transformed, reshaping students' learning." [4] The teaching team's informatization teaching ability has been greatly improved, and inter-school writing has been promoted. and exchange. The research coverage is wide and the radiation area is large.

However, the ubiquitous learning of college English is definitely not simply the integration of technical means or the replacement of teaching equipment. It should be a deep integration of advanced educational concepts and modern information technology. The ubiquitous teaching mode will inevitably have an impact and influence on all aspects of the existing curriculum teaching. In the process of reforming the ubiquitous teaching mode of college English, we must avoid technicalism. We should follow the "student-centered" concept and fully conduct multi-dimensional analysis of students. The teaching design is based on the technology of learning needs and teaching goals, and the acquisition of resources is not limited to existing resources, but also pays attention to the content of generative resources. The choice of teaching tools should be able to achieve teacher-student interaction and student-student interaction. At the same time, the evaluation is integrated into the whole teaching process to realize the combination of formative evaluation and summative evaluation.

"The key to the reform of the teaching mode based on the ubiquitous learning platform is to change the teaching concept, work style and behavior of teachers. Teachers must carry out corresponding reforms and innovations in teaching mode, teaching design, teaching skills, etc., and gradually complete the role of teachers from the transformation of traditional classroom teaching to an autonomous teaching mode that is conducive to the cultivation of learners' ubiquitous learning ability." [5]

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