

The application of English smart Classroom model under the background of big data

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Abstract. As an important embodiment of the integrated development of classroom teaching and modern technology, smart classroom is one of the current research topics of education informatization. According to the accumulated experience of college English smart classroom teaching in recent years, taking English classroom teaching theory as basic guidance and integrating advanced technology theories such as big data, cloud computing and mobile Internet to build and promote dynamic smart classroom before, during and after class can better meet the needs of English education innovation and development and cultivate all-round English talents. On the basis of understanding the current situation of the research and application of smart English classroom under the background of big data, this paper designs the structure according to the smart teaching model of college English, and defines the application effect of the smart English classroom model, so as to accelerate the pace of innovation and development of college English education in the new era.

Keywords: Big data; English teaching; Wisdom classroom; Analysis of learning situation; Teacher/student interaction

1. Introduction

With the development of social economy and technological innovation, the new generation of information technology has accelerated the pace of college English teaching and classroom innovation, and promoted intelligent education to become a new direction of global education reform. Chinese education informatization experts have found in their research that wisdom education in the information age is a new level of education informatization. Continuous optimization of wisdom teaching methods and help learning subjects to complete wisdom learning can further improve the education effect of wisdom classroom. According to our College English Education Guide, multimedia technology and big data virtual reality artificial intelligence technology are important technical means of foreign language education and teaching under the background of information and intelligent times. Colleges and universities are encouraged and supported to make full use of information technology, actively create diversified teaching environment, construct and promote online open courses, offline education courses, mixed education courses, etc.[1-3] It is helpful for college students to gradually master more English knowledge and language skills in personalized learning and independent learning, and optimize their basic abilities of listening, speaking, reading, writing and translation. When studying intelligent teaching classroom, foreign scholars pay more attention to exploring intelligent classroom under physical environment. Ronald Recinho was the first to put forward the concept of intelligent classroom, while early scholars who studied intelligent teaching put forward the theory of intelligent balance based on the theory of tridimensional intelligence and successful intelligence, which started from various aspects such as teaching objectives, teaching process and teaching means. Developed with practical and comprehensive wisdom teaching strategies.

In the context of the era of big data, research scholars have gradually expanded the scope of wisdom classroom research, combined with practical cases, and mastered more theoretical techniques. For example, in the report on Promoting Education through education data Mining and learning Analysis released by the Department of Education of the United States in 2012, it was proposed that actively carrying out the application research of big data technology in the field of education can better meet the needs of innovation and development of practical education. Some

scholars have proposed in their research that in the era of big data, students should not only pay attention to the application of technology in the classroom, but also understand the learning process and learning strategies of students. Nowadays, smart classroom model has become a new teaching model with informatization, internationalization and knowledge innovation as the core, which is the core topic of scholars from all over the world. While building a new classroom model, wisdom teaching of college English provides convenient conditions for professional teachers' education and guidance. It can correctly analyze the basic definition, application examples, development trends and future trends of big data, so that more college English teachers and students can complete blended teaching tasks, so as to promote the deep integration of higher English teaching and modern information technology. [4-6]

As an irresistible trend in the field of Chinese information society, the education departments propose in their research that they will actively promote the curriculum reform of colleges and universities and implement the deep integration of information technology and education teaching and overtaking project. At the same time, the education department has started the action of education information 2.0 under the environment of big data, and built and promoted the intelligent education system with data resources, artificial intelligence and education data as the core, which has become a new content of higher English education exploration in the new era. The traditional English teaching classroom takes teachers as the main body, teachers design the teaching content, control the whole teaching process, and directly transfer the theoretical knowledge to students. In the process of classroom education and guidance, more attention is paid to theoretical learning and practical skills training is ignored, which results in most students unable to fully demonstrate their English skills in practical activities. Although this teaching mode can achieve good teaching results in the early stage, in the long run, it will affect students' autonomy and enthusiasm in learning. The lack of inquiry cooperation between teachers and students will limit the cultivation and application of students' creative thinking. Wisdom classroom pays more attention to showing students' dominant position. Students complete class activities through cooperative exploration, while teachers are only organizers and guides in teaching. From the perspective of overall teaching, smart classroom teaching is characterized by individuation, creativity and interactivity. Teachers can realize communication based on the smart education cloud platform, help students answer their learning questions anytime and anywhere, and complete the expected teaching objectives. On the basis of understanding the current situation of the application research of English smart classroom model under the background of big data, this paper defines the application effect of smart classroom model according to the overall system design and combined with practical cases, so as to provide effective basis for the innovation and development of modern education.

2. Methods

2.1 Teaching Mode

The core of smart teaching is to use modern new technology and new media to build an efficient, collaborative and intelligent learning environment, continuously improve classroom teaching communication and interaction, resource sharing, evaluation and feedback capabilities, and ensure that the smart classroom model meets students' personalized learning needs. According to the accumulated experience of college English teaching in recent years, when designing and applying smart classroom mode, learners should be regarded as the basic conditions, and teaching objectives should be proposed to promote the comprehensive development of learners. Combined with language learning theories and foreign language teaching theories, the smart campus teaching environment as shown in Figure 1 below should be used to facilitate learning subjects to enter the smart classroom mode through the Internet or mobile terminals. It can not only fully display the learning content, but also share and update the important knowledge points, which provides favorable conditions for constructing the real teaching situation.[7-9]

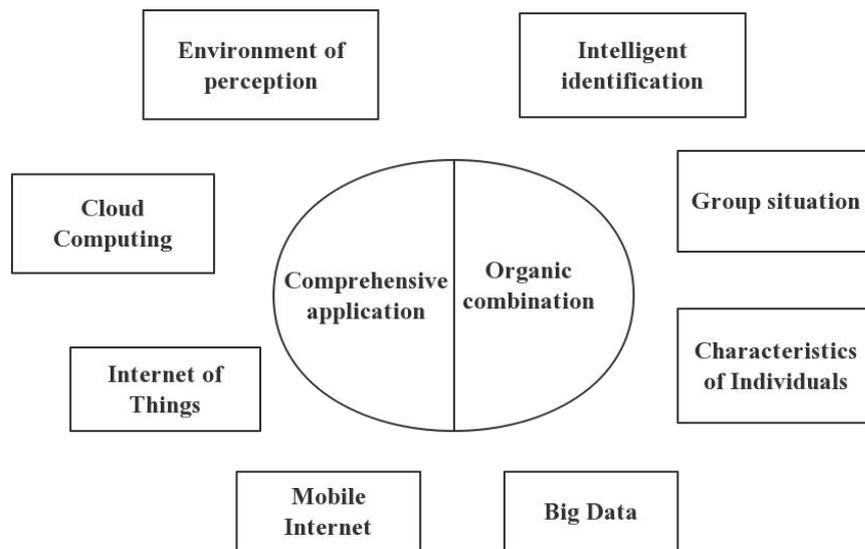


Figure 1. Structure of teaching environment of smart campus

Based on the analysis of the teaching design frame diagram of intelligent college English classroom shown in Figure 2 below, it can be seen that under the guidance of intelligent design, modern information theory and multiple intelligences theory, two aspects are set up: one is online learning, which includes intelligent teaching campus, online learning platform, intelligent teaching environment, real-time classroom teaching evaluation and other contents; On the other hand, it refers to offline learning, which includes pre-class analysis, teacher-student interaction and after-class real-time evaluation.

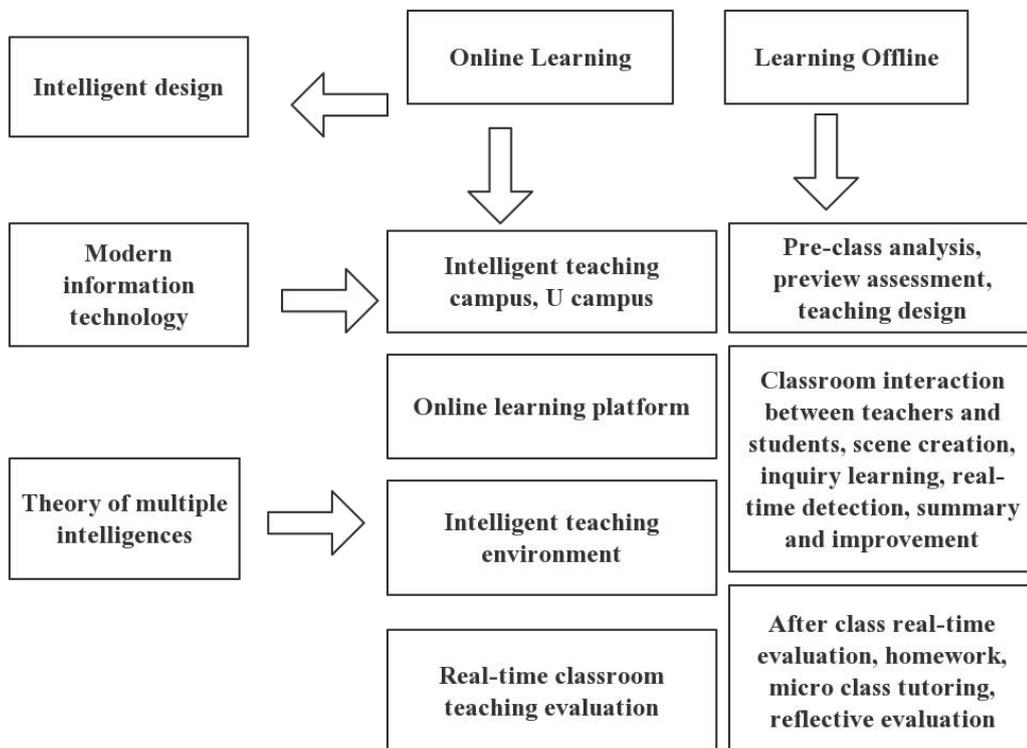


Figure 2. College English Intelligent classroom teaching model

From the perspective of practical application, pre-class learning situation analysis should always take students as the main body. After collecting and mining a large number of dynamic learning

data, the pre-established teaching objectives should be clearly defined, the ideal learning situation and teaching plan should be designed, the classroom learning process should be fully presented, the trinity of course goals should be determined, and then the teaching plan should be adjusted accordingly to fully meet the diversified learning needs of students. Intelligent push personalized learning resources and tasks to ensure that students can quickly acquire language knowledge in the smart classroom and continuously train their language skills, so as to form a good cultural literacy and thinking quality. [10-12]

2.2 Classroom Features

In the era of big data, smart classroom model is the main content of future education discussion, which mainly has the following characteristics:

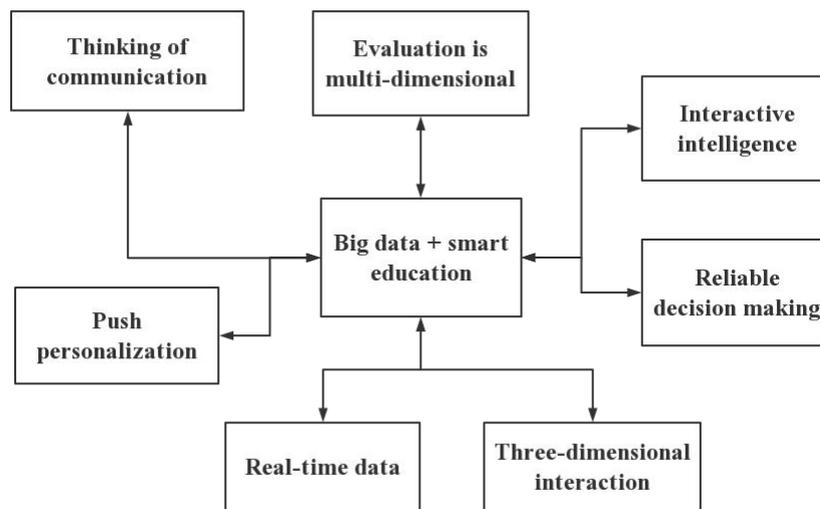


Figure 3. Feature structure diagram of wisdom classroom

Based on the above analysis, we can see that the overall teaching will become more intelligent and three-dimensional because of the interactive function added to the smart classroom. After collecting classroom teaching information, professional teachers can provide effective data support for real-time analysis. Among them, classroom evaluation has the feature of multi-dimensional, teachers can evaluate and analyze from different angles, not only can comprehensively enrich the evaluation content of English education, but also can dig more valuable content in the feedback information, and finally according to the learning needs of students, develop personalized classroom content.

2.3 Teaching Process

According to the phased characteristics of college English wisdom classroom, the overall classroom teaching mode is divided into three links, as shown in Figure 4 below:

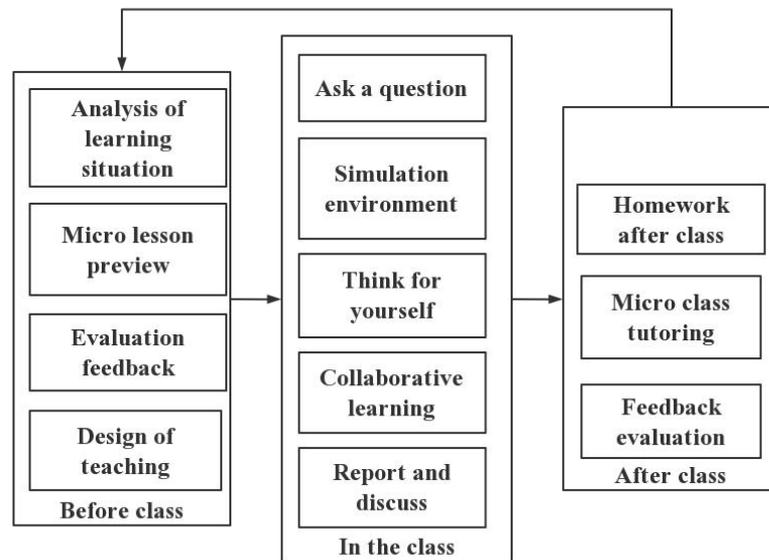


Figure 4. Teaching flow chart of wisdom classroom

According to the analysis in the figure above, information related to students' learning ability and course demand should be collected before class to comprehensively summarize the learning status of students in the class. Pre-class preview tasks should be scientifically formulated, and students should be required to learn independently in the shared module. Finally, a more perfect teaching plan can be obtained through assessment and feedback. In the formal class, attention should be paid to guiding students to explore independently and analyze cooperatively, so as to provide more time and space for students to think about problems. For example, when related teaching problems are involved, students should be encouraged and supported to complete the problem exploration by themselves, or deepen their understanding of knowledge in the report and discussion, so as to guide students to form the correct learning consciousness; After classroom teaching, it is necessary to help students consolidate what they have learned, upload and download client assignments on the resource-sharing platform, and transfer the completed assignments to teachers in electronic form. Teachers can use software to make statistical analysis of students' assignments and learning ability. In view of the students' frequent problems, the use of micro-class and other technical means for tutoring teaching. [13-15]

3. Result analysis

This paper studies the listening book teaching in Unit 5 of the second volume of E English Course (Smart Edition) from Foreign Language Teaching and Research Press, and mainly discusses the application effect of the smart English classroom model. The specific operation process is shown in Figure 5 below:

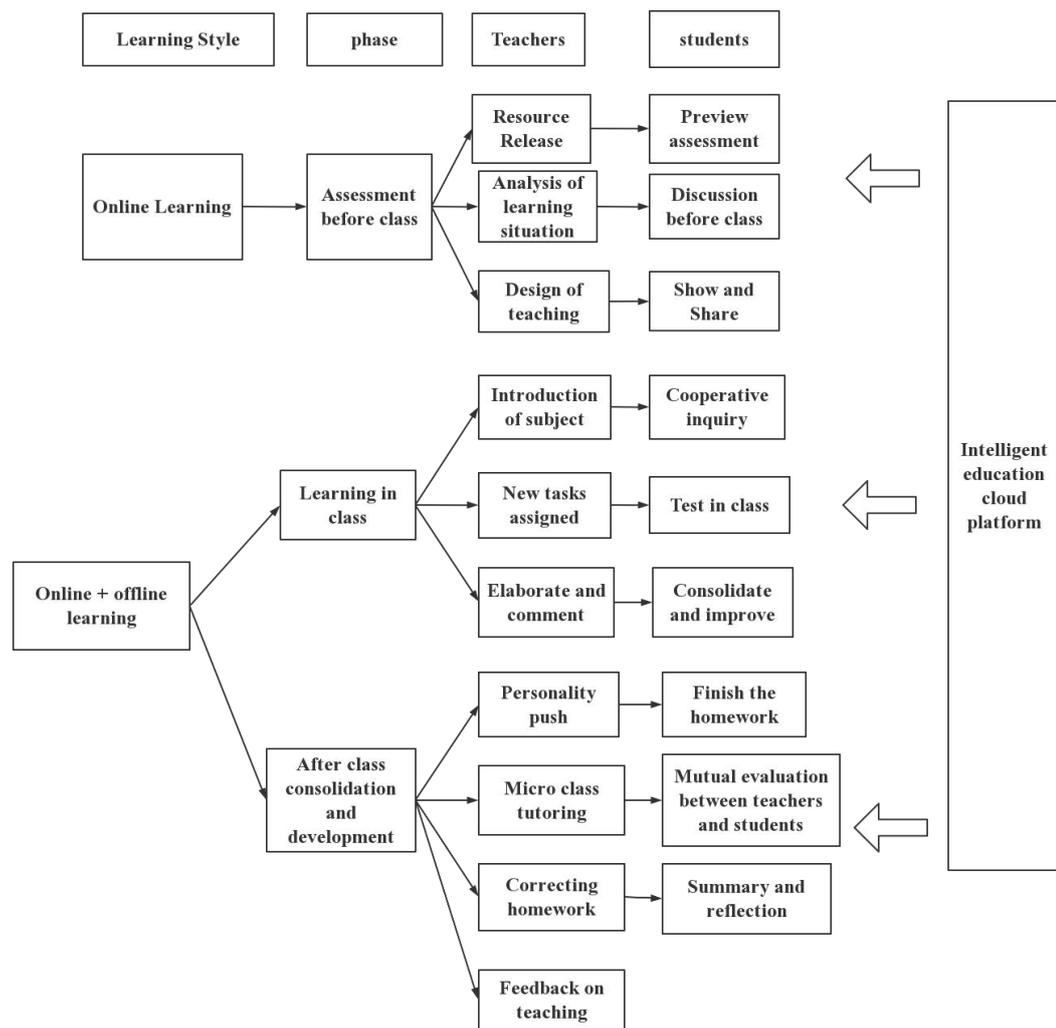


Figure 5 Operation flow chart of course mode

First of all, in pre-class teaching, teachers should use the cloud platform to send micro-lesson videos to students, requiring students to first learn lesson preparation content and simply understand English listening skills. In the independent training, they should learn to judge English sentences independently, and submit them to the teacher after completing the online assessment. The system can automatically review and feedback the learning results, and the teacher will give feedback according to the students' test level. Optimize the teaching design of this lesson; Secondly, during the classroom teaching, teachers can use English songs to import the knowledge learned in this class. Students are required to work together in groups to find the phenomenon of continuous reading in class. Then, students with excellent performance are selected to read the lyrics aloud for other groups to evaluate and analyze together. At the same time, the teacher should use the teaching method of games to ask students in each group to deliver the same sentences or words at the same time, observe which group completes the sentences the fastest and most accurately, and give spiritual or material rewards; Finally, after the end of classroom teaching, teachers should use cloud platform to provide personalized homework content according to students' learning conditions, and match micro-class tutoring teaching to help students further consolidate what they have learned.

Conclusion

To sum up, in the context of the era of big data, the integration of information technology and intelligent education cloud platform to construct a smart classroom model for college English

education guidance can not only transform the traditional teaching concept and teaching model, but also fully meet the English learning needs of students. Therefore, while attaching importance to the application of smart classroom mode, college teachers and students should gradually form a learning consciousness such as independent learning, cooperative inquiry and situational teaching, integrate online, offline and mixed teaching methods, build an efficient and interactive smart classroom, and do a good job in classroom teaching guidance, training, evaluation and feedback. This will provide an effective basis for subsequent educational innovation and development.

References

- [1] Lanfang Zhao . Analysis on the construction of wisdom classroom in high school English under the background of big data [J]. English for Middle School Students, 2021, 000(014):P.106-106.
- [2] Yang Liu . Research on Intelligent Classroom Teaching Model in Higher Vocational Colleges under the Background of Big Data [J]. Wireless Internet Technology, 2021, 18(22):154-155.
- [3] Yannan Peng. A Preliminary study of senior high school English Vocabulary teaching Model based on intelligent Learning space [J]. Anhui Educational Research, 2022(6):86-87.
- [4] Fei Li . Design and Practice of College English Teaching Model Based on Smart Classroom [J]. Contemporary Educational Practice and Teaching Research, 2020(01):25-26.
- [5] Zheng Dai,Qing Lv , Jianhuai Qiao. Research on Smart Classroom Teaching Model under the background of Big Data [J]. Henan Education: Basic Education Edition (I), 2022(5):62-63.
- [6] Haijuan Ding ,Lianghua Ma , Haijie Wang. Research on Smart Classroom precision Teaching Model under the background of Big Data [J]. Heilongjiang Education: Higher Education Research and Evaluation, 2021(8):2.
- [7] Xiaojin Sun. Research on Innovation of Smart Classroom Teaching Model under the background of Big Data [J]. Chinese Journal of Multimedia and Network Teaching: Electronic Edition, 2020(26):3.
- [8] Yannan Peng . A Preliminary study of senior high school English Vocabulary teaching Model based on intelligent Learning space [J]. Anhui Educational Research, 2022(6):2.
- [9] Aiping Xiao . The construction of junior Middle School English Wisdom Classroom under the Micro-exploration of Core Literacy [J]. Curriculum Guidance for Middle School (Teaching Research), 2020, 014(008):107.
- [10] Yang Song ,Yanyan Chen , Yuanyuan Chen. A probe into the teaching model of adult English Wisdom Classroom based on Big Data [J]. Journal of Guangxi Radio and Television University, 2021, 32(1):5.
- [11] Min Zhang,Pengjiao Wang , Yuxin Min. Research on Accurate Intelligent Classroom Teaching Model Based on Cloud Class Support [J]. Software, 2020, v.41; No.481(05):271-278.
- [12] Lijun Zhang . Middle School English teaching design and effect evaluation under the environment of smart classroom [J]. Woman Fang (New Era Education), 2021, 000(003):P.1-1.
- [13] Chunyan Liu . Research on Smart Classroom Teaching Model based on Big Data environment [J]. Journal of Kaifeng Vocational College of Culture and Art, 2021, 41(10):3.
- [14] Fuping Dong . New thinking on the construction of intelligent College English teaching model under the background of big data [J]. Cultural and Educational Materials, 2021(23):4.
- [15] Liping Liang. The teaching Exploration of Geography Smart Classroom in junior middle School under the background of Education Big Data -- A case study of "Geographical Phenomena Caused by the Earth Revolution" [J]. Educational Information Technology, 2020(6):3.