The Construction of Foreign Language Intelligence Teaching in the Background of Internationalization: A Study based on Southwest Petroleum University

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Abstract

With high integration of information technology and education, intelligent teaching of foreign language faces more challenges and opportunities. Intelligent teaching aims to encourage students to explore independently and cultivate their scientific spirit with the support of modern technology. In the context of the "Internet" era, traditional education and teaching models have been difficult to meet the needs of students' learning and development. Teaching reform is urgent, and intelligent teaching is imperative. With the new round of teaching reform, the "Internet" era has put forward more requirements for teaching. Taking the Nanchong campus of Southwest Petroleum University as an example, this project from three research aspects: "intelligent hardware environment", "intelligent soft environment", and "intelligent feedback evaluation mechanism" intends to explore the cost-effective model of construction of "intelligent teaching".

Keywords

Foreign Language Teaching; Intelligent Teaching; Teaching Reform Construction.

1. Introduction

Recently, information technology has developed with fast speed. It means that technological innovation has led to the whole industrial transformation, and the reform of higher education has ushered in a good opportunity. The deep integration of education and technology promotes the reshaping of educational forms, and foreign language teaching gradually tends to be intelligent and personalized. Under the background of the "Internet" era, traditional teaching models have been difficult to meet the needs of students' learning and development. Cai Jigang, professor in Fudan University said:" If College English hopes to survive and go ahead, teaching reform is urgrnt. "(1) SWPU(Southwest Petroluem University)as an university of science and engineering, we should take advantage of benefits of technology to deepen reform intelligent foreign language teaching modes.

This paper has carried out a lot of research on the application of modern information technology in intelligent foreign language teaching. First of all, the research on intelligent teaching modes in foreign countries is earlier than that in China. Due to the advanced information technology, the western researchers proposed the concept of "smart teaching". In 1993, the United States put forward the concept of "Information Superhighway", emphasizing the role of information technology in promoting education."(2) Smart classroom provides enough space and great possibility for students to learn independently. However, domestic research on smart taching is more at the level of technical feasibility, such as research on the construction of characteristics and positive impact of smart teaching platforms, but there are few empirical studies between smart teaching platforms and English learning.

Secondly, with the new round of teaching reform, the "Internet" era has put forward more requirements for teaching. After reading the relevant literature, it is found that the research on "intelligent teaching" is too single, such as how to start with hardware to realize classroom wisdom, or to change traditional classrooms from the perspective of teaching design.

In addition, the construction of "intelligent teaching" is still in the stage of rapid development. Through the survey, it is found that some people still have skepticism about "intelligent teaching". Because the relevant literature does not have the support of scientific theories and data for the characteristics of the "intelligent teaching".

This paper intends to analyze the three aspects of "smart hardware environment", "smart soft environment", and "smart feedback evaluation mechanism" to explore a cost-effective development model for "intelligent foreign teaching".

2. Intelligent Teaching and Traditional Teaching

This part will discuss about the characteristics of intelligent teaching and make a comparison between intelligent teaching and traditional teaching.

2.1. The Characteristics of Intelligent Teaching

Intelligent class is a high degree of integration of information technology and teaching. Through information technology, it can effectively improve classroom efficiency, promote the development of students' wisdom, and improve the informatization, digitization and intelligence level of the existing foreign language teaching system.

Firstly, intelligent teaching is full of vitality, which stimulates students to think more. Students can develop new study habits, and build new learning way of thinking. Secondly, the teaching atmosphere of the smart class is life-like, and it is what students are willing to learn and do. By giving students full trust and respect, the teacher guide students into a state of thinking and learning, stimulate students' desire for knowledge, and help students take the initiative to acquire new knowledge. Thirdly, the smart class promotes creativity, which stimulates students' new ideas and new insights, make the class exciting and creative, and provide students with new thinking and methods for learning.

2.2. Comparison between Intelligent Teaching and Traditional Teaching

The traditional class has always occupied a dominant position in teaching. Knowledge can only flow from teachers to students, resulting in students' lack of autonomy and initiative in learning. There is no a complete closed loop of intelligent teaching. In contrast, intelligent class not only realizes a multi-dimensional learning environment which gives students a lot of opportunities to train language skills, and can cultivate students' language skills and cultural quality development. Intelligent teaching enables students to choose suitable learning content according to their own needs, formulate learning plans according to their own abilities, and build a good foreign language learning environment.

At the same time, compared with traditional teaching, smart teaching provides a variety of feedback methods, which can help students understand their own learning situation in real time. This feedback is not only helpful to students, but also archived as learning records, so that students can adjust themselves in time. Therefore, intelligent teaching is very suitable for the characteristics of foreign language professional teaching. If it can be well applied to teaching, it can effectively enhance the teaching effect. For traditional teaching, some teachers always develop their classes step by step, and even some teachers' teaching plans can be used for many years without major revisions. However,for intelligent teaching, big data is continuously collected to accumulate students' conditions, and transmit the results to teachers. According to the scientific data, , teachers can find the major and difficult points for students and adjust their teaching plans in time. Teachers can communicate students online to solve problems without

any restrictions of space and time,and find teaching ways for each student according to their aptitude, so as to continuously improve and optimize their teaching mode.

Compared with traditional classes, the dynamic learning management method has significant characteristics and advantages for innovative performance. All behaviors in the class will be quantified into data for analysis, and teachers can accurately grasp the first-hand students' learning situation in this way.

3. Construction of Intelligent Teaching

This part will discuss about how to construct intelligent teaching from threeaspects:hardware enviroment, soft environment and online teaching platform.

3.1. Improving the Intelligent Hardware Environment

With the development of the Internet era, the intelligent teaching environment should also be updated accordingly, improving the previous teaching situation on hardware. At present, some smart teaching hardware has played a very convenient role in foreign language teaching.

The first step is to have a modern smart classroom that carries various functions. "Diversified hardware equipment is the key to smart classroom design, which can meet the basic functions of traditional teaching, and can improve the performance of students' attendance, teaching and learning. "(5)Basically speaking,we can install an attendance machine with fingerprint recognition or face recognition function. If conditions permit, the class can be equiped with the machine which can also capture the status of students in the class and further evaluate the learning effect of the students. Teachers can use the function of the projection device to project teaching resources to the screen at the first time, the students can learn it with much interest.In addition, if there are some interactive questions or participatory topics, students can use the smart phones to conduct teaching interaction,.Through this way, on one side, intelligent teaching stimulates students learning enthusiasm, avoiding the phenomenon that Chinese students are usually shy in the class,on the other side,it can effectively evaluate student engagement and mastery based on the content and reaction speed. The classroom should also be equipped with more radio equipment and volume output equipment. "It is recommended that each teacher install more than six radio equipment, at least four wall-mounted speakers, four movable cameras, and a main camera should be installed above the teacher's podium."(3)In this way, students can perceive the language immersively and better adapt to the teaching environment.

3.2. Optimizing Intelligent Soft Environment

The traditional foreign language study with separate teaching methods has not adapted to the current students' learning needs and talent training needs. As a foreign language teacher in a polytechnic college, it is necessary to innovate teaching methods to realize educational reform. Mr. He Kekang, a Chinese educational technologist, considered that "the key to the deep integration of information technology and teaching is to fundamentally change the traditional teaching structure" (3). It means that intelligent teaching poses new challenges to teachers and students. At present, Southwest Petroleum University mainly relies on hybrid model for teaching with "students" as the center and output as the purpose. Teachers make a series of teaching actions that promote the achievement of teaching results. The traditional classroom obviously does not meet the needs of the current students, and how to build a intelligent soft teaching environment has become the primary problem in the current English teaching process.

3.2.1. Paying Attention to Construction of Online Teaching Platform

Nowadays, intelligent teaching platforms have played a significant role in foreign language teaching. For example, FIF, as an oral language training software, uses artificial intelligence to

realize real-time evaluation in oral assessment."College English" in SWPU employs the FIF oral software to combine online and offline class, urging and encouraging students to speak English instead of learning "dumb English". After 1-2 years of persistent training, some students successfully passed the CET-4 and CET-6 oral exams and got the high grades, and some students had great performance in the "Foreign Research Institute Cup" oral competition. At the same time, iwrite,a writing teaching system,gives a way to relieve teachers stress of evaluating students writing.Through relevant questionnaires, teachers who use iwrite think that the system is more convenient and can urge students to complete writing tasks with limited time. However, the system also has drawbacks. In order to finish homework, some students search for articles on the Internet to get high scores , which is the biggest drawback of the software. Iwrite does not have the function of checking duplicates, which is undoubtedly a secondary project for teachers, and does not reflect the real "intelligence". In general, the development of intelligent teaching activities is inseparable from the support of intelligent teaching platforms. Teaching software platforms help teachers solve difficulties in traditional teaching, and achieves high-efficient teaching.

3.2.2. Improving the Complete Online&Offline Subject System

English courses on the Nanchong campus of Southwest Petroleum University are only offered for 1.5 to 2 years, and there are only 4 lessons per week, which is far from meeting the learning needs of students. For a long time, due to the shortage of class hours, there is no continuity in English learning and the curriculum system is not complete. In order to solve this problem, the reconstruction of the foreign language course system which is based on the network teaching platform and the use of the online and offline blended learning model have brought new opportunities to the foreign language courses of polytechnic colleges. First of all, teachers should try their best to integrate the teaching content, get out of the comfort zone of teaching materials, and provide students with optional layered learning content by using the U campus and FiF voice practice platform, so that students can make up for the shortcomings of lack of solid English foundation within a limited time. However, when students pass CET4 or CET6, because some students lack self-motivation and then just give up learning English. The result is that they cannot apply English to their work in the future. According to different majors, the school builds different online and offline learning content, and divides English courses into different modules.For example, there are several modules of English for Tourism and English for Businessm, and then students can choose the content they are interested in according to their own needs and conduct independent and personalized learning. In this way, it is useful and benifical for their future work.

3.2.3. Enriching Online Teaching Resources

Innovating the teaching mode and reconstructing the curriculum system must rely on sufficient curriculum resources. The curriculum resources of foreign language courses should be rich, sharable, high-quality and systematic. In fact, some universitiels do not pay enough attention to foreign language courses and teachers lack the awareness of foreign language intelligent teaching.For Nanchong campus, the college has built one online resource course "Advanced English Listening and Speaking". It can be seen that the resource construction of online courses in polytechnic colleges is still in scarcity. The reform of intelligent courses is imminent. In recent years, Nanchong Campus has been actively co-constructing and sharing in a win-win manner, seeking support from education authorities, enterprises and universities, taking students' needs as the priority and coordinating and co-constructing integrated and structured online courses, to optimize teaching resources, and finally forming an online teaching platform that can be jointly built and shared. With sufficient support from schools and high motivation of teachers, teachers are willing to carry out reforms with a positive attitude in order to ensure the smooth progress of foreign language wisdom teaching.

3.3. Updating Intelligent Feedback Evaluation Mechanism

Reforming the evaluation system to make teaching evaluation visualized, diversified and value-added. Through the online teaching platform, the basic information about online course,such as learning time,grades,evaluationa and attitude of particiipation can be tracked, recorded and evaluated for students, and finally transformed into students' final grades.There are two ways to reform the evaluation system.

Firstly, we should improve dynamic evaluation. The information technology has greatly enriched the means of teaching monitoring and evaluation. Teachers combines qualitative and quantitative evaluation, and multi-subject evaluation to promote students learning through evaluation, and stimulate students' interest.. The first is to use the intelligent teaching system to capture and record the process data of teaching and learning in a large-scale and conduct dynamic evaluation.The second is to establish an electronic growth record, so as to evaluate students' learning performance more scientifically. The third use is for learners to evaluate the course and teaching satisfaction in real time, and obtain feedback based on the learners' actual learning module selection, learning behavior process, learning effect and other data.

Implement the reform of credits for foreign language courses. For intelligent teaching, there are both offline teaching and online teaching. The existing course assessment method which is based on offline classroom teaching attendance, classroom activities, exercises, and tests can no longer meet the needs of the reform of information-based teaching. The comprehensive credit reform encourages students to study independently. For example, in SWPU, for "College English", if students make great job in the FiF and Unipus platform,they will definitely receive the exta grades for the final emanination. But there are still students ingnoring the importance of online study due to their lasting dependable study in the senior school. And they think they can pass the final exam if they study carefully in the class.For a long time, it cannot stimulate students independable learning ability to study.Thus,if onlline study can be awarded the credit,the situdation may be the different.And also, in SWPU,if students pass the CET4 or CET6, students can be awarded with 2 credits. Recntly,the rate of passing CET4 or CET6 has been improving,which can be the strong evidence that credits encourage students learn more independently.Therefore,we should provide enough guarantee for information-based learning with credit system reform.

4. Conclusion

Intelligent education has brought a new revolution to higher education. Human education is shifting from classrooms to online classes, and from lecture guidance to cooperation. A famous American educator proposed: "Teaching supports academic research...Academic research drives innovation and reform in teaching, providing a steady stream of dynamic support and practical ways for teaching."(2).

With the popularization and application of advanced information technology, educators need to look at education from a new perspective of "future wisdom". Colleges and universities should strive to cultivate students' curiosity, inspire wisdom, enhance autonomy and sense of responsibility, and guide them to pursue meaningful learning actively, broadly, and farsightedly. Based on questionnaires and survey findings at the Nanchong Campus of Southwest Petroleum University, this project explores a cost-effective development model for building "intelligent teaching" from three research aspects: "intelligent hardware environment", "intelligent soft environment" and "intelligent feedback evaluation mechanism". SWPU will continue to explore and move forward on this road. There is still a long way to go to cultivate innovative and intelligent talents that meet the needs of the 21st century and improve the quality and level of foreign language teaching in my country's higher education.

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