Application Research of Online and Offline Mixed Teaching Mode Based on Mobile Education Platform in Higher Vocational English Teaching

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Abstract

He improvement of scientific information technology promotes the formation of new education and teaching models. It is of great significance to realize online interaction and offline communication in higher vocational English teaching, which can quickly solve practical problems of students' learning. This platform system is mainly based on the online and offline mixed teaching model, mainly adopts database, decentralized algorithm and information processing model, accurately locks the actual learning needs of students through statistical algorithms, and uses the platform and short video form for online teaching carry out. It can put forward a design and implementation scheme of laboratory teaching assistant system based on Android platform. The scheme combines the rapidity of computer information management and the flexibility of intelligent terminal equipment operation, and realizes the teaching assistant system in the environment of higher vocational English teaching. Combining with Internet + for systematic discussion, the development of students' thinking ability and the effect of interactive communication are realized through the use of mobile education platform, that is, the characteristics of openness and richness. At present, China's education model mainly focuses on quality education and subject core literacy, and strengthens students' knowledge utilization and ability opening.

Keywords: mobile education; higher vocational English; online and offline; mixed teaching

1 INTRODUCTION

Vocational English teaching emphasizes the professional cultivation of students' foreign language application, and the forging of the core literacy of English subjects is particularly critical to improving students' comprehensive ability. In the construction of the online and online platform for higher vocational English teaching, it is necessary to reflect the comprehensive mastery and comprehensive implantation of English knowledge, build an online and offline interactive system. At this stage, there are relatively few studies on the online and offline mixed teaching mode based on the mobile education platform in higher vocational English teaching. Based on the current situation of this problem, this paper proposes optimization measures. The purpose is to focus on the practice of mixed mode of English teaching in higher vocational colleges, and analyze the design structure and practical application of the mobile education platform. Practical application purpose, platform module design, construction of online and offline interactive system, realization of teaching platform architecture have high theoretical value significance.

2 OVERVIEW OF MOBILE EDUCATION PLATFORM

With the gradual improvement of China's education system, it is particularly critical to realize the diversification of education platforms. The mobile education platform is mainly based on mobile terminals and central platforms. It optimizes and upgrades teaching content and forms, refines key points and difficulties, and realizes the transformation from intensive platform education to individual terminal teaching. The mobile education platform is based on the online education, Internet + teaching form, and realizes real-time online learning interaction through the mobile education platform. The entire teaching process and learning are paperless. The mobile education platform has automatic correction, automatic evaluation, automatic explanation,

automatic playback, automatic interaction and other features. And through the mobile terminal, the complex teaching and tedious learning in the past can be completed. The best value utilization of space and time can be realized, and the learning efficiency and quality can be comprehensively improved.

3 ANALYSIS OF THE ADVANTAGES OF ONLINE AND OFFLINE MIXED TEACHING MODE

3.1 *Live Online Education*

There are many advantages of the online and offline mixed teaching mode, among which real-time online education is one of its main advantages. The online and offline mixed teaching enables students to quickly grasp the key points of knowledge through the teaching platform in the mobile terminal through online teaching. Teachers can intuitively present knowledge content to students through pre-made courseware or real-time online explanation. Real-time is also reflected in the progress tracking of teaching content. The online and offline mixed teaching mode optimizes and upgrades the traditional teaching time and space, emphasizing the rational use of teaching time and the value of learning space. That is, online learning and offline consolidation makes teaching more convenient and learning easier.

3.2 *Convenient Interaction*

The interactive communication feature of the online and offline mixed teaching mode is also one of its highlights. In the traditional teaching mode, teachers are the implementers and leaders, and the center is the teacher. In the online and offline mixed teaching, students are used as the main body through the mobile terminal platform, and students are associated with the teaching subject through node distribution and network association, so as to realize the decentralization of the teaching category. Between students, teachers and students can communicate with each other through the mobile education platform, and conduct online consultation and online answers to unsolved problems and unknown problems. Online message, online chat and other functions can achieve interactive communication.

3.3 *Better After-class Review*

In the traditional education model, there is a lack of consolidation and strengthening of after-school review, and classroom teaching is to reflect the students' learning acceptance and cognitive level at that time. In the after-class review, there is a sense of detachment from teaching. It is difficult for students to devote themselves to the review, and it is difficult to quickly digest the knowledge they have learned. The online and offline mixed teaching mode integrates pre-class preview, in-class learning, and after-class review, strengthens the teaching tracking before class, in class, and after class, so that the three form an integrated teaching system. The mobile education platform allows students to enter the review structure independently through the design of knowledge content in preview and learning, and allows students to quickly grasp the knowledge content through various interesting forms of review guidance and prompts, which is very useful for consolidating their own learning effect and quality in the later stage.

3.4 *Rich in Content*

The rich content in the online and offline hybrid teaching mixed is also one of its features. Under the framework of traditional knowledge education content, this teaching mode redesigns the subject content and implants elements to enhance the interest and richness of the entire teaching content. First of all, the teaching mode is presented in multimedia and interactive forms, and the courseware is mainly based on animation or real scenes, so as to mobilize students' participation in learning. Personalization and novelty are highlighted in the platform module design, and students can directly click into it. Secondly, they are drawing on the current mainstream education models, teaching methods, foreign experience, etc. It comprehensively enriches the content and knowledge points of the courseware, and has massive question banks and online answering functions to meet the needs of students at different stages and levels of ability.

4 FEASIBILITY ANALYSIS OF USING MOBILE EDUCATION PLATFORM

4.1 *High Teaching Efficiency*

Taking the mobile education platform as an example, the feasibility of its implementation is analyzed. Firstly, the use of mobile education platforms can improve teaching efficiency. The improvement of teaching efficiency has always attracted the attention of many scholars. Most of the traditional teaching models are in the form of classrooms, which often lead to stagnant teaching or stagnant progress. The teaching efficiency cannot be improved for a long time due to the influence of teaching time and space. The mobile education platform enhances the dual effect of teaching time through the online form, that is, classroom teaching + online learning, which plays a very important role in promoting home-school cooperation and family education. Through surveys and data statistics, it is shown in table 1 and table 2

TABLE I.   STATISTICS OF HOME-SCHOOL COOPERATION EFFECT SURVEY (%)

	Review effect	Self-study effect	Data acquisition	Interactive answer	Open communication
Stage I	60%	75%	80%	66%	59%
Stage II					
Stage III	65%	82%	89%	70%	67%
	71%	90%	95%	88%	76%

Data source: Statistics
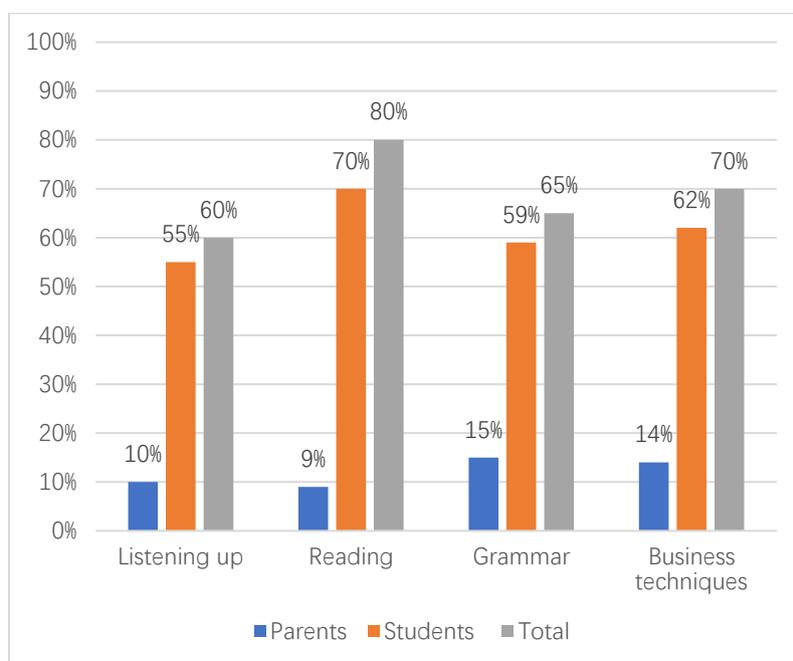
Figure 1. Statistics of family education effect (%)

Data source: Statistics

Through the data statistics in table 1 and figure 1, it proves that the effect of the mobile education platform mode is feasible and advantageous, which has a positive significance for comprehensively improving the teaching efficiency [1].

4.2   *Diversification*

Single teaching content and lack of comprehensive knowledge have always been the main problems faced by subject teaching. The comprehensive knowledge and non-professional content are designed and implanted in the mobile education platform to realize the diversification of education types, which is convenient for students to obtain the knowledge they need through the content of other disciplines. It is also convenient for consolidating the content mastery of the professional discipline. For example, through the massive resource search function in the mobile education platform system, students can obtain relevant knowledge content by themselves, reducing the complex resource acquisition process and realizing one-click search as shown in table 3 and table 4.

TABLE II. THE PROPORTION OF RELATED RESOURCES IMPLANTED IN THE MOBILE EDUCATION PLATFORM

	Historical and cultural background	Business workplace literacy	Main points of the listening-up practice	Scientific learning methods
professional knowledge Non-professional knowledge	English history World history and culture	Practical English in the workplace Workplace literacy and etiquette	English listening and speaking skills Memory training method	Interest learning methods Multiple learning methods, etc

TABLE III. RELATED NON-PROFESSIONAL KNOWLEDGE AND RESOURCE CONTENT OF THE PLATFORM

	Non-professional knowledge	Related resource content
Resource knowledge content	History Mathematics Chinese	Society Culture Job market

From table 2 and table 3, it is found that the diversity of types is one of the main features of the mobile education platform, which meets the actual needs of current quality education and students' individual learning.

4.3   *Open Richness*

The development of students' thinking ability and the effect of interactive communication through the use of the mobile education platform are the features of openness and richness. At present, China's education model mainly focuses on quality education and subject core literacy, and strengthens students' knowledge utilization and ability opening. The mobile education platform is based on the above two points, focusing on the core literacy of students to realize the openness and richness of platform education. Openness is mainly reflected in the interactive communication between students and the platform exchange between teachers and students, mainly in the form of message boards and chat rooms, to realize online answers, online consultation, online interaction, etc. Students' learning thinking and habits have been subversively changed as shown in figure 2 and table 6.
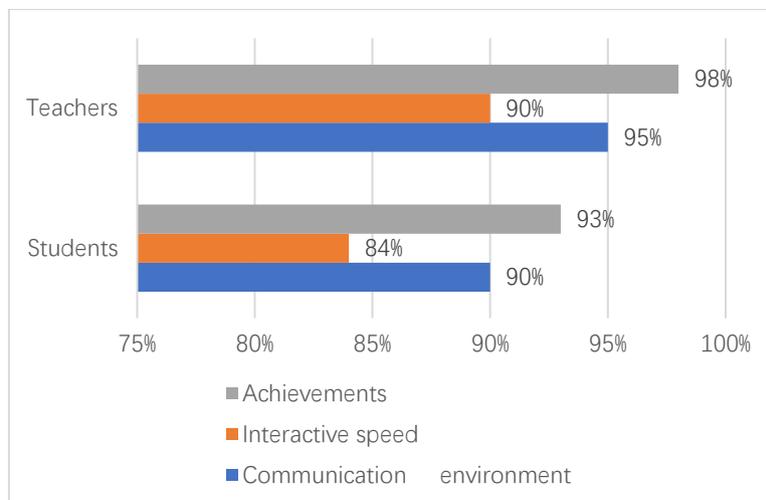

Figure 2. Open satisfaction survey of mobile education platform

Data source: Statistics

TABLE IV. COMMUNICATION MODULE OF MOBILE EDUCATION PLATFORM

	Online teaching	Listening-up practice
Main mode of communication	Online communication	Chat room
	Answer online	Message board
	After-school interaction	One-to-one communication

From figure 2 and table 4, it is found that the open richness of mobile education platform is of great significance to improve the teaching quality.

5 USE THE MOBILE EDUCATION PLATFORM TO CARRY OUT THE PRACTICAL APPLICATION OF THE MIXED ENGLISH TEACHING MODE IN HIGHER VOCATIONAL COLLEGES

5.1 *Practical Application Purpose*

This article focuses on the practice of mixed mode of English teaching in higher vocational colleges, and analyzes the design structure and practical application of the mobile education platform. The purpose of this research is as follows. The first is to improve the quality and efficiency of English teaching in higher vocational education. In the past, the teaching of English subjects in higher vocational colleges was mostly formalized, and the students were not interested in it, and the participation was not positive. Based on this, it can use the mobile education platform to realize the online transformation of higher vocational English teaching, promote the mixed effect of online teaching and offline interaction, and comprehensively enhance students' participation and learning interest. The second is to realize the distance education and Internet + education mode, according to the actual needs of the reform of higher vocational teaching mode, improve the architecture design of the platform, strengthen the scientific rationality of modules and architecture, and meet the diversified needs of higher vocational English teaching. The third is to realize online and offline interaction. Interaction is an important foundation of this system design. The interaction is mainly based on automatic correction, automatic answer, and interactive communication. The interactive communication effect of the platform system is continuously improved, which lays the foundation for the later open network platform education.

5.2 *Platform Module Design*

The main module design of the mobile education platform architecture is mainly given, and now the module design of the platform is summarized. The mobile education platform mainly requires the needs of higher vocational English teaching, including automatic

correction, interactive communication, online learning, courseware playback, automatic evaluation and massive resources. Automatic correction is mainly aimed at online homework or exercises. The system of electronic examination papers is submitted by multiple students for rapid correction. Interactive communication is mainly in the form of chat room and message board, which can provide space for students and teachers to interact before or after class, interactive communication between middle school students in the open chat room and online answers. The courseware playback is mainly in the form of courseware for students to regain knowledge learning through playback. Automatic evaluation is a comprehensive evaluation of the students' learning results in this period. Massive resources mainly include this professional or non-professional knowledge content, which are associated with the relevant database, It is easy for students to obtain new knowledge-assisted [2] in English learning.

5.3 *Build an Online and Offline Interactive System*

In the construction of the online and offline platform for higher vocational English teaching, it is necessary to reflect the comprehensive mastery and comprehensive implantation of English knowledge to build an online and offline interactive system. Online mainly refers to the realization of the whole process of knowledge learning through platform work or real-time teaching, while offline mainly focuses on classroom teaching to re-consolidate relevant knowledge. The two are effectively linked through the mobile education platform. First of all, it focuses on practical English content in vocational colleges, and online teaching mainly focuses on listening, speaking and grammar. Finally, the home-school cooperation model is realized through the mobile education platform, and students can conduct knowledge review and courseware review in their dormitories or at home, which is convenient for mastering the knowledge of classroom teaching on the second day.

5.4 *Realize Teaching Platform Architecture*

After system design and network architecture, the teaching platform system is completed, and its practical application is strong. In network applications, mobile communication networks, campus Internet of Things, local area networks, etc. are mainly used, and 5G

technology is applied to rapidly improve the speed of data information transmission. After practical application, it is found that the teaching platform system is relatively stable, and the operation security is better. Mobile terminals are mainly based on APP and teaching platform software. Online learning and courseware review mainly include sub-modules such as grammar teaching, business English, listening and speaking practice, course explanation, key answers, and comprehensively conduct online teaching and centralized explanation of higher vocational English content [3].

6 EXAMPLE ANALYSIS

Vocational English teaching mainly focuses on cultivating students' professional English and business English ability, focusing on listening, speaking, comprehension and expression ability. Taking a high school English mobile education platform as an example to conduct a comprehensive analysis on it, it has the characteristics of a mixed teaching mode of online and offline. The online teaching mainly focuses on business English listening and speaking, grammar application, reading comprehension and expression ability. The application design of various module contents can quickly improve the effectiveness of its teaching. The listening and speaking practice module has a comparative analysis function, which comprehensively analyzes and compares the students' oral pronunciation, and finally forms a difference report. Through this report, students can quickly grasp the lack of oral pronunciation. In the offline situational teaching, students master the key points of professional and business English oral expressions, and the rules of pronunciation standards through the change of their own pronunciation deficiencies, which is particularly critical to comprehensively improve their listening and speaking skills [4].

7 CONCLUSION

To sum up, through the analysis of the online and offline mixed teaching mode based on the mobile education platform in higher vocational English teaching, it lays a foundation for comprehensively promoting the quality of higher vocational English teaching and improving core literacy. The teaching mode is in line with the current national education development policy and quality education strategic plan. It mainly includes practical application purpose, platform module design, construction of online and offline interactive system, realization of teaching platform architecture, etc., laying the foundation for future talent training.

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