Innovation Mode of Higher Vocational English Education Based on Big Data and New Media

Guo Jing

Anyang Preschool Education College, Anyang, Henan, China

Abstract

Higher vocational education comes into being in the background of China's economic development and the demand for a large number of skilled talents with high knowledge level. Higher vocational English teaching is an important part of higher vocational education. It is an important task for English teachers in Higher Vocational Colleges to position English Teaching in higher vocational colleges, organize English teaching and improve students' English level in order to implement the training objectives of higher vocational education. Through the questionnaire survey, this paper analyzes the current situation and confusion of English Teaching in Higher Vocational Colleges in China. Around the vocational English education in higher vocational colleges, this paper puts forward the ideas of English curriculum reform. The results show that: (1) Setting up vocational English reflects the professionalism of Higher Vocational English teaching content; (2) Creating open teaching situation reflects the openness of teaching form; (3) Constructing students' English language practice files reflects the practicality of teaching process; (4) Adopting multiple evaluation system improves the multiple effectiveness of teaching evaluation.

Keywords*: Higher vocational English, big data, new media, data fusion.*

I. Introduction

In recent years, the popularization of higher education has been actively promoted, and the teaching development system and teaching quality evaluation system of higher vocational education have also been developed to a certain extent. However, most of the ordinary undergraduate colleges have experienced decades or even hundreds of years of development, and have explored relatively mature theory and practical experience in personnel training, quality assurance and evaluation system [1-2]. The development of higher vocational education is basically from the 1980s, at the beginning of this century, with the large-scale enrollment expansion of higher vocational education, it began to flourish, to adapt to the changes of social needs and the needs of jobs, to cultivate skilled talents as the teaching purpose [3]. Higher vocational English teaching can learn from the teaching experience and teaching methods of general undergraduate English, but it can not be mechanically applied. At present, the research on Higher Vocational Education and higher vocational English teaching is not perfect. English Teaching in higher vocational colleges aims at supporting the training scheme of skilled talents. It should not only study the theory of teaching concept and teaching innovation, but also provide guarantee from the practical activities such as teaching activities and teaching organization [4-5]. That is to say, we should not only consider the core concept and talent cultivation plan of higher vocational education, but also combine the international background and social needs, and implement the teaching activities of the integration of language ability and pragmatic ability. All these belong to the problems that need careful thinking and deep research in Higher Vocational English teaching [6]. At present, most of the researches on English teaching quality evaluation in higher vocational colleges are focused on the macro level. We hope that through the research of this paper, we can improve the society's rational understanding of English teaching quality evaluation in higher vocational colleges, strive to improve the theoretical guidance of English teaching quality evaluation, and actively promote the organic combination of English evaluation theory and practice.

The evaluation of the quality of Vocational English teaching has been carried out by reference to the education mode of ordinary colleges for a long time. However, the students in higher vocational colleges are different from those of undergraduate colleges in terms of their academic achievements, learning attitude, employment demand and training objectives [7-8]. The policy and teaching content of higher vocational education should be based on the exploration of the law and theoretical research of higher vocational education, and should be guided by the social needs and keep pace with the times. Any law of education needs people to explore and summarize from practice and improve constantly. This paper analyzes the current situation, existing problems and teaching evaluation of English Teaching in higher vocational colleges, in order to find new focus of the evaluation of English teaching quality in higher vocational colleges, to create an atmosphere of evaluation of English teaching quality with the times, and to fundamentally improve the scientific, comprehensive and impartial teaching evaluation, and then improve the quality of English teaching. The research and innovation of the evaluation mode of English Teaching in higher vocational colleges is also a new advance to the construction of the college curriculum, which can provide theoretical basis and practical proof for the teaching department to formulate the teaching quality evaluation system.

II. An overview of English teaching quality evaluation in Higher Vocational Colleges

2.1 The necessity of English teaching quality evaluation in Higher Vocational Colleges

In the education of higher vocational colleges, English teaching is an important basic course and quality course. With the process of economic globalization, graduates with professional English, English language communication skills, and the ability to promote the integration with foreign advanced technology and knowledge in the new era are the skilled talents in short supply. In view of this, in the practice of cultivating high-quality talents, the responsibility of Higher Vocational English education is more important. To promote the pace of education, we must first improve the quality of English teaching [9]. On the one hand, it can ensure that the college leaders and teaching management departments have a comprehensive understanding of English teaching, and provide new ideas for the school's English reform and innovative development. On the other hand, the positive interaction between teachers and students depends on a good teaching atmosphere. Teachers' innovative teaching content, teaching methods, teaching attitude and active cooperation with students are the premise of the successful completion of the teaching process, and teachers' continuous improvement of teaching ability in practice [10]. The necessary guarantee for students to improve their English level in practice is that teaching and learning complement each other and promote each other, so as to realize the common progress of teachers and students. Effective teaching quality evaluation can promote the learning atmosphere of English classroom and the interaction between teachers and students, and ensure that both sides achieve a win-win situation in teaching and learning. The structure of the system is shown in Figure 1.

To improve the teaching and learning ability of teachers and students in higher vocational colleges, and then to improve the overall English teaching level of the school, this is the overall goal of all higher vocational colleges to carry out English teaching quality evaluation. Through the construction of student-centered teaching mode, improve the students' sense of ownership and learning enthusiasm. The focus of English teaching can be shifted to focus on students' development, rather than just focus on the completion of teaching tasks, so as to promote students' conscious and active participation in classroom teaching and improve learning effect. The essence of English teaching quality evaluation in higher vocational colleges is to provide all kinds of information necessary for teachers and students to adjust their English teaching activities in an organized and purposeful way. The information feedback after the integration and analysis of teaching quality evaluation can promote teachers and students to adjust their own behavior in teaching and learning activities, and ultimately achieve the organic integration of teaching objectives and teaching objectives, so as to ensure that school English teaching is carried out in an orderly and peaceful state, and the teaching quality can be steadily improved.
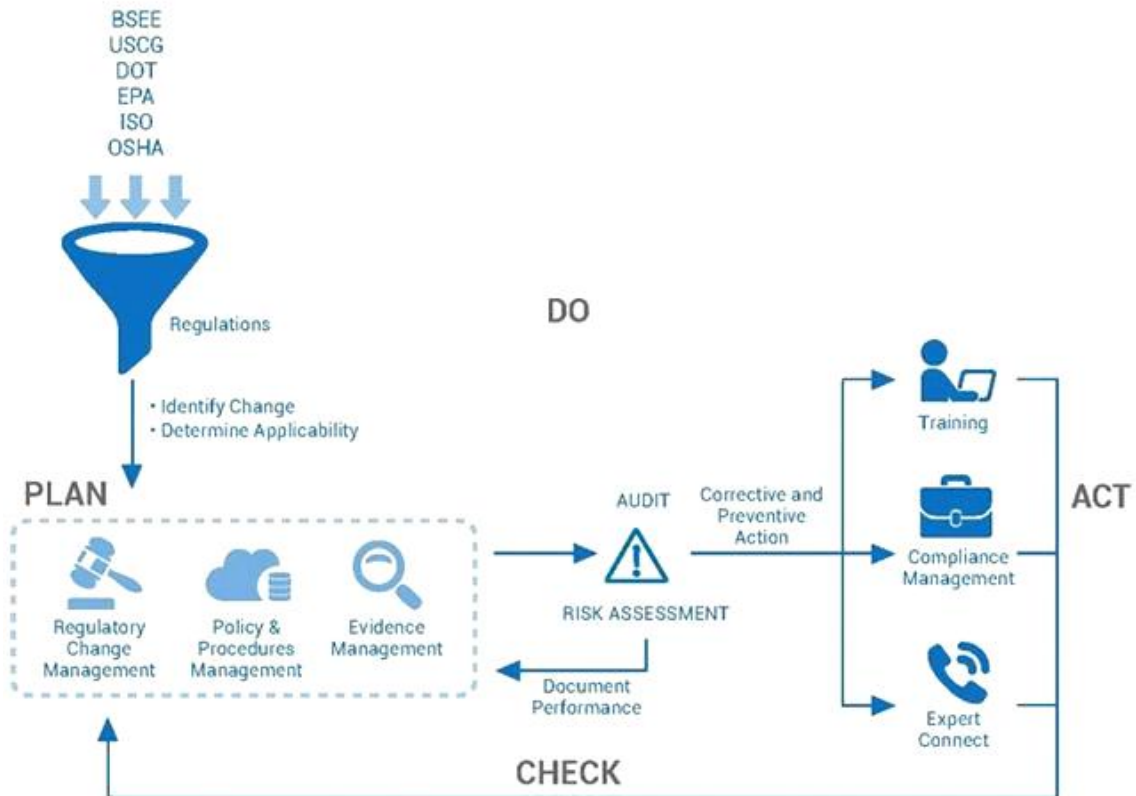
Fig. 1. The structure of the system

2.2 The theoretical basis of English teaching quality evaluation in Higher Vocational Colleges

(1) Theory of Multiple Intelligences
The theory of multiple intelligences put forward by Professor Howard Gardner, a psychological development scientist in the Institute of education of Harvard University, is one of the cornerstones of the fourth generation of education evaluation theory. According to Gardner, human intelligence can be divided into eight aspects: language intelligence, mathematical logic intelligence, spatial intelligence, body movement intelligence, music intelligence, interpersonal intelligence, self cognitive intelligence and natural cognitive intelligence. They coexist in a diversified way and are relatively independent. Influenced by the educational environment and the imbalance of their own ability development, there are obvious differences in the intelligence performance of different individuals. Therefore, in the process of education, diversified and developmental teaching evaluation should be emphasized, which is consistent with the view of formative evaluation. The purpose of teaching evaluation is to develop students' intelligence, so that students can be aware of their strengths and weaknesses, and then take targeted measures to develop students' potential, so that each student's intelligence can be the most suitable development.

(2) Taylor evaluation principle
In the 1930s and 1940s, Ralph W. Tyler published two books, the compilation of achievement tests and the basic principles of curriculum and teaching, respectively. The former makes him known as "the father of modern education evaluation", while the latter is regarded as the model of modern curriculum research, which makes him known as "the father of modern curriculum theory". At present, the most common goal model in the field of curriculum evaluation is formed on the basis of Taylor's "evaluation principle" and "curriculum principle".

Taylor's evaluation principle mainly focuses on the necessity of teaching quality evaluation, the basic concept of

evaluation, the procedure of evaluation and the use of evaluation results. Taylor believes that the evaluation process is essentially a process of determining the degree to which the curriculum and teaching plan actually achieve the educational goal, and a process of changing teaching behavior. Taylor also proposed to test the teaching effect through sampling inspection, and actively tried the way of teaching quality evaluation, such as interview, questionnaire, field observation, etc. all the methods that can prove that the students' learning situation has changed can be adopted, which greatly enriched the evaluation methods and broke through the limitations of traditional paper and pen examination. Taylor also pointed out the guiding function of evaluation curriculum reform. In recent years, new curriculum evaluation theories emerge in endlessly, but Taylor's modern education evaluation principle can still provide useful reference for our teaching quality evaluation.

2.3 Principles of English teaching quality evaluation in Higher Vocational Colleges

In the process of implementing the quality evaluation of English Teaching in higher vocational colleges, we should adhere to the following principles:

(1) The pluralistic principle of teaching evaluation
Under the new situation, the evaluation of English Teaching in higher vocational colleges is a process of integration of teaching and learning. Traditionally, the evaluation of students' teaching is only determined by the summative evaluation of a single level of examination results or passing grades. The new teaching evaluation is a developmental dynamic evaluation in many aspects, which not only involves the examination results, but also needs to evaluate students' pragmatic skills, learning attitude, learning strategies and team cooperation performance. This teaching evaluation characteristic is consistent with the educational evaluation principle of Multiple Intelligences Theory: development and diversity are its core characteristics, and the combination of formative evaluation and summative evaluation is its diversified evaluation method.

(2) Guiding principles of teaching concept
The purpose of teaching quality evaluation is to improve the teaching quality and promote the realization of the goal of teaching quality evaluation. The premise is that educators should first guide themselves with advanced teaching concepts and accurately grasp the current situation and needs of the current English Teaching in higher vocational colleges. Teaching quality evaluation should not only be the evaluation standard of the teaching effect in and out of the classroom, but also help the English teachers to clarify the direction of teaching work and improve the teaching methods on this basis, so as to fully reflect the guiding function of teaching quality evaluation.

(3) The humanized principle of teacher student orientation
People are the core factor in the evaluation system of teaching quality. The management between people, the education of people, and the development of people are promoted by people. The good interaction between teachers and students and the sustainable development of teaching relationship are the key points that we need to pay attention to in teaching quality evaluation. In the evaluation of learners, the evaluators should fully consider the differences of students' actual English level, so as to help and guide them. In dealing with the evaluation results, the evaluator should look at the problem from the perspective of development, and consider whether the evaluator has any developmental progress in the learning process, so as to promote the pragmatic ability, professional English ability and professional skills of the evaluator with humanistic feelings and means.

III. The present situation and problems of English teaching quality evaluation in Higher Vocational Colleges

3.1 The current situation of English teaching quality evaluation in Higher Vocational Colleges

In recent years, higher vocational colleges have continued to deepen the reform of education and teaching, and actively promote theoretical innovation and practical exploration. Teaching quality evaluation is undoubtedly an important part of the teaching management system of higher vocational education, which plays an important role in

the overall level of running a school, teaching management, quality improvement and teaching strategy formulation. In the formulation of teaching quality evaluation system and personnel allocation, colleges and universities have also carried out positive promotion and implementation. First, at present, the teaching quality evaluation process of higher vocational colleges is generally under the responsibility of the teaching management department. The education affairs department, departments and supervision groups are the macro-control, evaluation support and direct implementers of the implementation of the teaching supervision evaluation, and the supervision group is composed of retired teachers and some teachers in office. Good teachers' morality, excellent teaching level and good communication are the selection standards of teachers. They play a stable and positive role in promoting the teaching process and improving the teaching quality. Secondly, the educational administration department of higher vocational colleges, usually the office of educational administration, has introduced corresponding teaching management system for English theory courses and practical training courses in higher vocational colleges. The teaching materials are distributed uniformly, and the teaching management documents are studied regularly. Especially in the training of new teachers, they will lead them to study in-depth the documents of educational evaluation. The establishment of these measures is to lay a good foundation for the teaching quality evaluation, to ensure that the evaluation is institutionalized, standardized and scientific, to consider all kinds of possible problems in advance, and to actively deal with and solve the work. The establishment of teaching quality evaluation system in higher vocational colleges is uneven, and it is impossible to achieve complete uniformity and consistent standards. However, most colleges are gradually improving according to the indicators of the Ministry of education "about the teaching excellence and qualification evaluation system of Higher Vocational Colleges". Third, the teaching quality evaluation of higher vocational colleges mainly focuses on classroom explanation, paying attention to the teacher's classroom activity setting, teaching content arrangement, complete teaching materials and attendance assessment, so as to form the basic evaluation of the overall teaching work of teachers. The evaluation of students' learning effect is mostly reflected in the way of final evaluation, with the summative evaluation standard as the main.

3.2 Problems and analysis of English teaching quality evaluation in Higher Vocational Colleges

(1) The concept of teaching quality evaluation is backward
The attitude of Higher Vocational Colleges towards English is always to treat it as a basic course of culture, instead of treating it as a skill course and quality course. The college formulates its own syllabus and evaluation mechanism, which easily falls into the traditional teaching and teaching evaluation routine, and makes higher vocational English teaching a compressed version of English Teaching in Colleges and universities. Due to the great increase of the class hours of professional courses and skills training courses in higher vocational colleges, the teaching hours of Higher Vocational English are compressed again and again, and the teaching content is concise again and again. However, the language skills practice and practical training required by the curriculum reform are not completed. Teaching quality evaluation also follows the traditional evaluation concept, ignoring the evaluation of pragmatic competence and vocational English skills. To improve the teaching quality is the original intention of teaching evaluation. Only by constantly improving the teaching concept and keeping pace with the times, can we really be invincible in the game of improving the teaching quality of higher vocational colleges. Table 1 shows the attitude of English learning of vocational college students.

Table 1 The attitude of English learning of Vocational College Students

Problem	1. Are you not interested in English?			2. Do you think all higher vocational students should learn English?		
Option	Be interested	Not very interested	Uninterested	Be interested	Not very interested	Uninterested
Proportion	58%	37%	5%	59%	27%	14%
Problem	3. You learn English because:					

Option	Special or more interested	Not interested, but it's important to know English	I'm not interested. I'm learning English at school	To get a diploma
Proportion	58%	36%	3%	3%

(2) The evaluation method of teaching quality is single

At present, most of the teaching quality evaluation work in higher vocational colleges mainly focuses on the supervision and evaluation of teachers' Classroom Teaching: Teachers' attendance, teaching material preparation, teachers' appearance, teaching content and so on. However, the evaluation of students' learning effect is mainly reflected in the form of stage quiz, competition results and final examination, with summative evaluation as the main method, while developmental evaluation, process evaluation and formative evaluation are not in place. This kind of evaluation method assesses the most basic language knowledge, neglects the assessment of students' pragmatic communicative ability and vocational English skills, and does not record the students' growth progress in the process of English learning. It can not fully reflect students' language learning ability and real pragmatic ability, let alone make use of the diversity, innovation and persistence of students' English ability development.

(3) New technology lag of teaching quality evaluation

In the information age, many application programs can be used to do a variety of classroom evaluation and teaching quality evaluation media, easy to use, accurate and fast information analysis, and many higher vocational colleges' evaluation work still depends on the feedback scoring of the educational administration platform, the focus of evaluation has not changed for many years, it is difficult to bring forth new ideas. In addition, big data integration and analysis of massive data in many higher vocational colleges are not really carried out. Big data can collect and sort out the data of teaching quality evaluation, effectively analyze the good ideas and experience in teaching, and also find out the common problems, so as to provide fast and accurate data statistics for managers and effectively support the formulation of teaching decisions.

IV. Suggestions on strengthening the evaluation of English teaching quality in Higher Vocational Colleges

4.1 Improving the evaluation index of teaching quality

English Teaching in higher vocational colleges should follow the requirements of "service-oriented, employment oriented, practical oriented, sufficient and application-oriented". Therefore, in the English Teaching of higher vocational colleges, we need to pay more attention to the cultivation of pragmatic competence and professional competence, which should be reflected in the evaluation index of teaching quality. In the design of the evaluation index, we should not only combine the actual situation of students' English learning in higher vocational colleges, but also consider the actual operation ability of teachers, and reflect the development direction of the college. First of all, in the teaching quality evaluation, the teaching quality evaluation tables of professional courses and basic courses in higher vocational colleges should have their own teaching quality evaluation indexes to reflect the specific evaluation elements of different disciplines, so as to have a better reference and guidance for teaching. Secondly, in English teaching, we should pay attention to the evaluation of the practical teaching of Higher Vocational English, distinguish the evaluation of theoretical courses and practical courses, and the evaluation index should reflect the curriculum objectives, teaching characteristics and inspection focus of the two courses. Third, in the evaluation of teachers' teaching process, we should focus on the evaluation of teachers' professional quality and professional English teaching ability while examining teaching design, teaching methods and teaching attitude, which is the special feature of English Teaching in higher vocational colleges. Finally, in the evaluation of teaching effect, we can increase the evaluation index of teachers guiding students to participate in the English pragmatic competence competition, so as to "replace evaluation with competition", and enhance the cultivation and practice of students' pragmatic competence. Network topology is shown in Figure 2.

4.2 Establishing innovative teaching team

Most English teachers in vocational colleges are still very absent in this respect. Under the long-term language education system, they have the knowledge of theory. So how to combine English teaching activities with vocational education practice to cultivate students' English application ability? The answer is to establish and train a "double teacher" faculty. In a broad sense, the double teacher can be understood as another title in addition to the series of titles of teachers, that is, the double title type teacher, or the teacher should have both the quality of theoretical teaching and the quality of practical teaching, which is called double quality teacher. While doing a good job in English theory teaching and practice teaching, higher vocational colleges should also provide more opportunities for English teachers to carry out interdisciplinary cognitive learning and training, especially the industry characteristic learning and practice in higher vocational colleges. On the one hand, it can increase English teachers' sense of enterprise identity and belonging. On the other hand, it can promote the integration of language and specialty on the basis of being familiar with professional knowledge. Higher vocational colleges can also create opportunities to undertake or hold large-scale tasks and activities related to foreign language teaching in higher vocational colleges, so that teachers can be trained in practice and improve their teaching and practical ability. In addition, we can also carry out innovative education and teaching training for the existing teaching staff, invite authoritative experts to the school to hold relevant training lectures, teach the latest ideas of Higher Vocational English teaching, improve the overall professional innovation ability of teachers, and actively apply them to teaching practice. The integrated English teaching stratified classroom based on visual environment is shown in Figure 3.
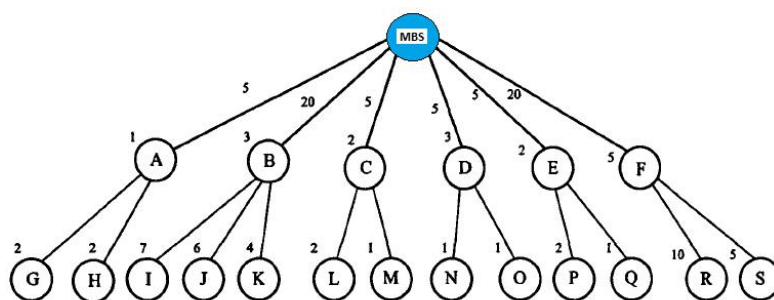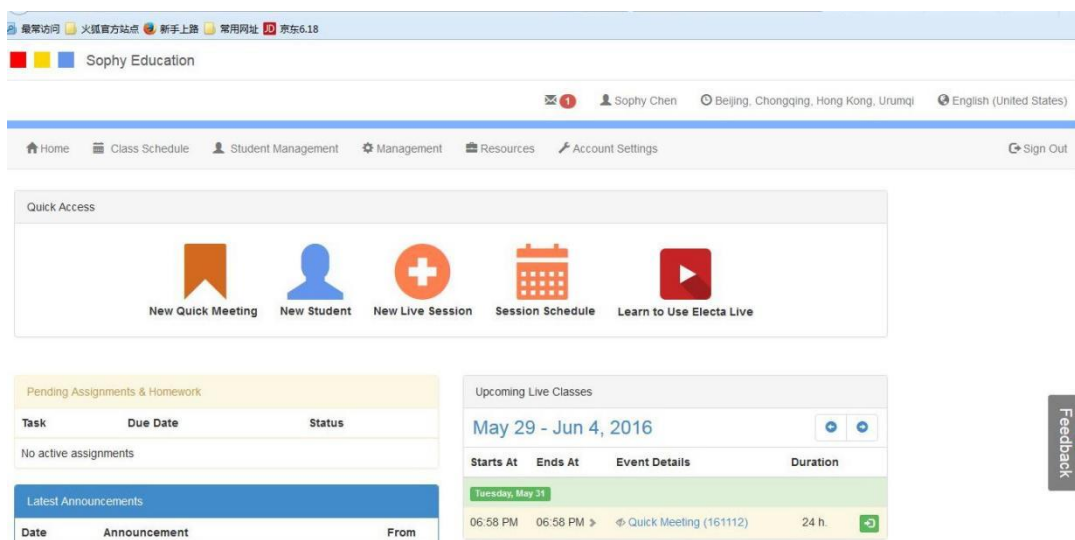

Fig. 2. Network topology

Fig. 3. The integrated English teaching stratified classroom based on visual environment

4.3 Strengthen the support of information technology

Higher vocational colleges should make full use of big data technology to play a positive role in English teaching quality evaluation. On the one hand, in improving the teaching quality evaluation, higher vocational colleges can play the role of big data and mass data collection to ensure that the evaluation system is more systematic. On the other hand, big data and cloud computing can be effectively combined to count and analyze all kinds of information related to teaching quality evaluation, and gradually improve the integrity and sustainability of teaching quality evaluation. Big data technology serves the teaching quality evaluation, the college can focus on the following two aspects: first, pay attention to big data technology investment, strengthen the construction of big data system technology. With the rapid development of Internet technology, people attach great importance to "Internet + education". Big data can be widely used in education practice, teaching research and teaching quality evaluation system. With the continuous increase of investment in higher vocational colleges, the construction of big data technology application system can be further strengthened, so as to effectively promote the integration with teaching quality evaluation. Second, advocate the timeliness and normalization of data collection. Real time data collection is the premise of big data work. Continuous data collection will better ensure the effectiveness and accuracy of the evaluation. Record and analyze the students' team display activities, network platform self-learning data and other students' learning process, detect and track, and determine the students' long and short board. In the information age, students' learning methods and methods have changed greatly. The Internet plus mode can help teachers and students to interact online and offline. Using online teaching resources such as MOOC, wechat and vocational education cloud, through mobile QQ, wechat and other media, we can easily complete the teaching, communication, homework and activities of various classes. All teaching related behaviors can be recorded and exported through big data to track and study students' learning effect evaluation. For example, if you only need to set up a class with ISmart English learning platform in advance, each class check-in activity can be completed in dozens of seconds, and the number of absentees and check-in time can be seen at a glance. According to the daily teaching effect, we can also launch a real-time voting activity on the platform to determine the students' satisfaction with the course. For the students' concentration in class, we can also randomly select some or all of the students to take photos and send today's course notes through the display interface of the platform. The teacher can browse and log in to the platform with his mobile phone or computer, and complete the simple evaluation of these notes in a few minutes. Through the convenience of the Internet and the introduction of big data, higher vocational colleges and English teachers ensure the collection of teaching data anytime and anywhere, with strong timeliness, simple and convenient, accurate and intuitive information.

V. Conclusion

Higher vocational education as an important part of higher education, the Ministry of education determined that under the new situation, the focus of higher vocational talents training has been determined as the strengthening of practical, application-oriented and skill oriented ability, graduates after employment in various service, production and sales industries to play their professional ability. Among all the public basic courses in higher vocational colleges, English has always been a concerned language and culture course. The mode of English education and teaching has its own uniqueness and can not be copied. It plays a continuous and irreplaceable role in improving students' English level and language ability. To improve the quality of English teaching and meet the needs of the new era for talents under the vocational education system is the fundamental purpose of Higher Vocational English teaching quality evaluation.

Improving the quality of education and teaching, reflecting the characteristics of higher vocational colleges, has been the consensus and requirements of higher vocational colleges. The evaluation of English teaching quality in higher vocational colleges should be based on the scientific and comprehensive quality management system of higher vocational education, pay attention to diversified evaluation, innovate teaching ideas, strengthen the research on the theory and method of English teaching quality evaluation with higher vocational characteristics, and constantly improve the evaluation of English teaching quality in higher vocational colleges.

References

[1]   Yin Xiaogen, Zhang Xiaofang, Zhang Weichao. Study on 3d Reconstruction Method Based on Optical Field Digital Focusing. Photoelectron. Laser, 2015 (26): 991

[2]   Xia Zhengde, Song Na, Liu Bin. Dense Light Field Reconstruction Algorithm Based on Dictionary Learning. Acta Physica Sinica, 2020, V.69 (06): 63-71

[3]   Wang Yizhi, Zhang Xudong, Xiong Wei. Optical Field Camera Vision Measurement Error Analysis. Acta Photonica Sinica, 2017, 046 (011): 113-124

[4]   Long C, Li G, Hongxing Y. 3d Dynamic Object Reconstruction Technology Based on Light Field Rendering. Journal of the University of Chinese Academy of Sciences, 2009, 26 (6): 781-788

[5]   Yang Fan, Yuan Yan, Zhou Zhiliang. Study on Evaluation Method of Optical Field Camera Imaging Quality. Modern Electronic Technology, 2011, 191(1):146-156

[6]   Liu Yanlei, Yuan Libo. Multi Directional Fourier Contour Recognition Method for Steep Edge of Objects. 2013, 7:2(2):729-734.

[7]   Tang Yi, Liu Weining, Sun Dihua. Application of Improved Time Series Model in Expressway Short-term Traffic Flow Prediction. Computer Application Research, 2015, 32 (1): 146-149

[8]   Wan Ying, Han Yi, Lu Hanqing. Discussion on moving target detection algorithm. Computer Simulation, 2006, 023 (010): 221-226

[9]   Liu ya, AI Haizhou, Xu Guangyou. A moving target detection and tracking algorithm based on background model. Information and Control, 2002, 12: 14-19

[10]   Pan Quan, Cheng Yongmei, Du Yajuan. Discrete moment invariant algorithm and its application in target recognition. Acta Sinica Sinica, 2001, 23 (001): 30-36