Innovative Analysis of Multimedia Language Laboratory Management Service Model in the Context of Big Data

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Abstract. In recent years, along with the rapid development of computer technology and Internet technology, multimedia application to the classroom teaching is increasingly extensive and it has quickly turned into one of the important teaching means. As one of the typical representatives, multimedia language laboratory plays a very important role in the aspects of foreign language teaching and learning, but it still has many problems and defects; thus, it is necessary to further study how to make the multimedia language laboratory management service model innovative. In this paper, the overview of multimedia language laboratory was simply introduced, the important significance of the multimedia language laboratory in foreign language teaching was expounded, and then the main problems in the current management service of the multimedia language laboratory were analyzed; finally, several targeted suggestions were raised for reference.

Keywords: Multimedia language laboratory · Management service model · Big data

1 Introduction

Along with the gradually deepening development of China's educational reform, the application of the new technologies such as multimedia in the classroom teaching becomes more frequent. Foreign teaching, as one of the teaching difficulties, began to attempt the application of multimedia language laboratory, in order to better improve the level and quality of the foreign teaching.

2 Overview of Multimedia Language Laboratory

Multimedia language laboratory uses multimedia to transfer and store the teaching information and also employs computer technology to process the multimedia information such as text, sound, graphics, videos and animation, and then provide an efficient modern learning place for learners.

The topological structure of the multimedia language classroom is different according to the differences of the construction plans; and also its language style is also different. In general, multimedia language is composed of the following three parts.

The first is the control by teachers. This part is the control and decision-making center of multimedia language classroom; it integrates a variety of media to process and control the multimedia information and also completes the teaching information transferring work with the aid of computer control [1].

The second is the information processing. The part of the so-called information process mainly processes and transfers the different information of multimedia language classroom. It is the main part of multimedia language classroom and also fully reflects the powerful function of multimedia language laboratory.

The third refers to the facilities available for students to use. The components of this part mainly include video playback equipment, video display, headphone microphone set, and reaction analysis equipment and so on. [2] In essence, the facilities for the students in the multimedia language laboratory are not different from the traditional sound lab: it only enhances the functions further, especially in the aspects of feedback presentation, information acquisition method, and voice fidelity.

3 The Important Significance and Role of Multimedia Language Laboratory in the Foreign Language Teaching Process

AS one of the important places for college students to study foreign language, multimedia language laboratory is very important; especially along with the rapid development of multimedia technology and Internet technology, the language laboratory is no longer a simple voice lab, but a more comprehensive digital voice laboratory which can provide students with all kinds of skill training in listening, reading, speaking, and writing [3].

Multimedia language laboratory on the one hand can provide a more lifelike foreign language learning environment to students and improve the students' passion for learning and their learning effect and quality. It on the other hand can further enrich the teaching methods and resources and give supports for students and teachers to make use of various new teaching models such as collaborative learning, personalized learning, and exploratory learning. In short, multimedia language laboratory is favorable for training the competence of students in innovation an independent study, thus increasing the foreign language teaching efficiency and quality, centering on students, and reflecting the core position of the learners,

4 Major Problems in the Current Multimedia Language Laboratory Management Service Process

In China, the application of multimedia language laboratory has existed for a period. However, seen from the refection and comparison between different colleges and universities, the current multimedia language laboratory still has many problems in the management service process, which are mainly reflected from the following aspects [4].

4.1 Relatively Backward Overall Hardware Facilities Unable to Meet the Basic Requirements of the Foreign Language Teaching

The author investigated and researched a well-known institute of some provincial city, in which there were about 18000 students and 14 sound labs. Most of the labs have been put into use for more than 10 years, and only two labs were constructed and updated in recent years. In the teaching practice, because foreign language course is one of the major courses, the use of multimedia language laboratory is relatively frequently used and it is used for about 6–7 h every day; and it is at least used for consecutive five days [5]. Besides, there are few laboratories, so that the high-load, long-term operation has been caused and then the components such as control terminal, microphone and headset for students are seriously damaged. In addition, many manufacturers have transformed to product other types of products, and therefore it is very difficult to purchase the components and also the repair frequency is relatively low; most of the labs are in a reluctant use and operation state and have been far satisfied the basic foreign language requirements. In a long run, the over-heavy maintenance task of the multimedia language laboratory management personnel is caused, and meanwhile teachers and students will have emotion to resist; the teaching effect is hard to guarantee [6].

4.2 Absent Business Competence of the Management Personnel and the Absent Rational Technological Structure

In general conditions, the management positions of multimedia language laboratory in all colleges and universities can aid the teaching positions [7]. Therefore, in all aspects including salary, title and promotion, they are much lower than the institutional officers and first-line teachers. In the management team of multimedia language laboratory, there are almost no young people with higher educational background and most of them are temporary workers or the working personnel with a lower educational background; the working contents are only limited to hardware maintenance and daily duty. As a result, the management optimization measures such as higher-level teaching resource management and system maintenance cannot be realized.

4.3 Low Efficiency and Development Rate in the Language Teaching System

Currently, in the foreign language teaching process of most colleges and universities, the traditional classroom teaching methods are almost applied, mainly because of the increasing workload and the less standard personal information techniques of the teachers. Therefore, even of a language software system is applied, it is only limited to the classroom broadcast and almost does not touch upon the new types of teaching functions such as independent testing and autonomous learning, so that the overall use efficiency and development rate of the language teaching system are relatively low [8].

4.4 Backward Teaching Resource Construction and Unable to Really Play a Supporting Role

Colleges and universities, in the process of training foreign language personnel, need to be based on the training of the basic foreign language skills such as reading, writing,

listening, and speaking: the self-study competence of students is differently trained according to the differences of majors. Certainly, the precondition for finishing this task is the richness of teaching resource pool and the individualization of teaching platform and ways [9]. However, these are unavailable from the current multimedia language laboratory.

5 Suggestions and Measures on the Management Service Innovation of Multimedia Language Laboratory

In order to further train the composite applied foreign language talents who meet the requirements of the state and society and better serve the reform of the foreign language teaching, it is necessary to pay more attention to the construction and management of multimedia language laboratory work and especially make innovation and improvement for all aspects such as underlying hardware, teachers' technical level, management personnel ability improvement, and the constriction of teaching resources.

5.1 Further Building and Improving the Hardware Facilities and Providing a Sound Basic Guarantee

As is known to all, the premise and foundation of implementing multimedia language laboratory refers to the high-speed, high-standard hardware equipment such as audio-visual device, server, and Internet switch. Therefore, colleges and universities should increase investment from several aspects, so as to ensure the multiple functions and high standards of multimedia language laboratory and then to provide the basis for training foreign language talents and the reform of foreign language teaching.

5.2 Further Establishing and Improving the Teaching Resource Bases

With the deepening and development of teaching reform, the role of professional teaching resources in the innovation of supporting teaching model and learning model. The ways of acquiring the teaching resources should not be limited lo the Internet as before; it is necessarily set according to the specialties of the school; and then the matching audio video resources and teaching resources bases are purchased to strengthen the construction of the contents of the multimedia language laboratory. As a result, professional teaching and foreign language teaching can be truly combined and a better learning environment is provided for both teaching and learning.

5.3 Further Improving the Comprehensive Quality and Business Level of the Management Personnel of Multimedia Language Laboratory

The key factor for whether the teaching system and experimental facilities of multimedia language laboratory can play an important role lies in the technical level and responsibility consciousness of the management personnel. Therefore, the education in the management personnel post awareness and technical training are necessarily further enhanced so as to remind managers to really understand the role and significance of

multimedia language laboratory. Then, the initiative, self-consciousness and the complex teaching resource, teaching system and advanced equipment technical ability of the management will be constantly improved [10].

5.4 Further Enhancing the Overall Education Technical Level of College and University Teachers

In the practice of multimedia language laboratory, the teacher is the key factor, but also an important part. Only with a practical improvement of the educational techniques of the teachers, their confidence and ability to make use of new teaching model and method will be improved; and also teachers are promoted to make use of more diversified modern teaching methods, thus improving the overall use efficiency of teaching system and experimental equipment.

Therefore, the author thinks that colleges and universities should make special rules and regulations by combining the professional education and the function of multimedia language laboratory or providing appropriate subsidies for the process of assessing the teaching workload. Therefore, on the basis of improving teachers' enthusiasm and initiative, it is necessary for teaches to adopt the modern education methods and technical means.

6 Conclusion

To sum up, with the arrival of the information age and the raising of the national "Internet + policy"; the higher education in colleges and universities is faced with important moments; the application of the new teaching means such as multimedia has become an important part of the colleges and universities to improve the teaching level and efficiency. At present, many colleges and universities have begun to develop and use multimedia language laboratory to assist the foreign language teaching. In practice, however, there are still the problems such as backward hardware devices, low language teaching system development, poor management personnel ability, and relatively lagging-behind teaching resources. Thus, it is necessary to strengthen the construction of teaching resource bases and hardware equipment. At the same time, it is necessary to improve the overall comprehensive quality and skills of multimedia language laboratory, and then the status quo will be truly changed and the biggest role of multimedia language laboratory will be played.

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