Analysis on the Application Difficulties and Improvement Strategies of Professional Teaching Resource Database of Vocational Education in China

Wenying Zhang
Guangdong Construction Polytechnic,
Guangdong, Guangzhou, China

Abstract—The professional teaching resource database of vocational education is an emerging thing in the field of higher vocational education, and is required for deepening the reform of higher vocational education teaching and improving the quality of talent training. In the construction and application of the resource database, the teachers involved in the construction are fully engaged and passionate for making massive data; and students, teachers, social personnel and other potential applicants seem to be visitors, cold and cheerless, causing the professional teaching resource database of higher vocational education face severe difficult situation in the aspect of application. This paper will analyze the causes for the difficult situation of resource database application and promotion strategies, which is of great significance to the development of higher vocational education in China.

Keywords—Network Resources; Higher Vocational Education; Professional Teaching Resource Database; Difficult Situation

I. INTRODUCTION

Professional teaching resource database is a newly sprouted thing in the field of higher vocational education, required for deepening the teaching reform of higher vocational education and improving the quality of talent training. In 2010, the Ministry of Education began to carry out the construction of the professional teaching resource database of higher vocational education. This work has gradually become a major core project for the professional construction of higher vocational education [1]. As of 2017, there were more than 800 higher vocational colleges in China (of which 167 of them were the higher vocational demonstration backbone colleges) which started the construction of teaching resource database. There were 1377 enterprises of various industries participating in it. The total investment of the central finance was over RMB 400 million, covering all (19) major categories of higher vocational education, and there were more than 90 professional resource databases which had passed the national level project approval, more than 710 thousand pieces of multimedia resource, 15.8TB, and the daily visit volume reached 1 million person-times. However, in the construction and application of the resource database, the attitudes for construction and application are quite different. The schools and teachers participating in the construction are fully committed and passionate for making massive material; and most potential applicators seem to be visitors, cold and cheerless, causing the professional teaching resource database of higher vocational education to face the severe difficult situation in the aspect of application.

II. ANALYSIS OF THE REASONS FOR THE DIFFICULTIES IN THE APPLICATION OF NATIONAL PROFESSIONAL TEACHING RESOURCE DATABASE OF VOCATIONAL EDUCATION IN CHINA

A. Light Weight of Resources

In recent years, the construction of professional resource database of vocational education has achieved certain results, presenting a batch of high-quality online courses. However, with the promotion of all stakeholders, a large number of uneven quality teaching platforms and resource database platforms have emerged. Among the professional resource databases which have passed the national level project approval, more than 90 mainly used resource database platforms are under wisdom vocational education of Higher Education Press. According to statistics, there are more than 800 thousand pieces of multimedia resource, about 18TB. But the types of resources are simple, mainly based on text, picture, PPT courseware transformed into animation and other simple materials which only dismantle the data of the traditional class into fragments to upload. It is to fragment for fragmenting, causing the integrity and coherence of the material resources to be lost, the standard of resource attributes to be incomplete, the randomness of the material production to be incomplete and the visual and auditory quality to be poor. For an example of the course of which the author participates in the construction, 505 pieces of material resources have been completed, but the number of resources which can be regarded as the high quality resource and can be used in the course teaching will not more than 350 pieces, and the other resources play the role in making up the number.
B. Among Learners, There are More Learning Tourists and Less Real Learners. Resources Do not meet Learners’ Needs

At present, the number of registered students in the platform of wisdom vocational education has exceeded one million of people, and the accumulated visits have exceeded 2 billion person-times. But these resources are mostly used for performance assessment now, that is, to use for using. The teachers participating in the construction are also under the requirements of the performance assessment in the task book to use the course in the process of the ordinary teaching for information-based teaching. In the result assessment, the design of online learning score compulsively requires the students to take part in the online learning in the course network, and does not care whether the students are regarding learning seriously in but emphases on the accomplishment of the task. So, among the tens of thousands of learners, most of them are only "tourists" aiming at completing the course requirements. They click to participate in learning to "surf" all kinds of resources, leave traces and produce data records, in which they are not really using the course platform to learn, or gain more knowledge in learning.

The knowledge base of higher vocational college students is relatively weak. Although they have the willingness to learn, they are impetuous, lack of learning enthusiasm and patience, and they like to distinguish the "useful" and "useless" learning contents subjectively. For "useless" or "uninteresting" contents, they are not willing to listen to them. In addition, when learning, they are not good at using the brain to "understand", but like interesting questions. As the original people of the network, higher vocational college students are affected by TV plays and diversified networks since childhood, and their daily lives are networked, and they receive a lot of information every day, so it is simply impossible for them to watch the resources which do not meet their aesthetic and interest. Therefore, the number of registered students in the digital study center of the vocational education of wisdom vocational education is very large due to it, but the number of learning resources in the class is rather small.

C. The Conditions of Information-based Technology Need to be Improved

In recent years, under the impetus of the information-based teaching competition, the level of the teachers’ information-based technology has been greatly improved. To some extent, information-based technology can be skillfully applied to the classroom teaching, but the traditional classroom teaching is still the mainstream. From the background monitoring data of wisdom vocational education, it can be seen that only less than 1/3 of the teachers and students included in the monitoring objects can carry out the teaching and learning by using the resources in professional teaching resource database. There are three main reasons as follows:

Firstly, online course construction consumes much time and effort, and the construction of a course needs long-term preparation and striving. As affected by the school hardware, it is not necessarily able to be used after construction. For an example of the author’s school, the classroom is not covered by the wireless network, where hundreds of people use mobile 4G network to take class, so network traffic jam often appears, and students are unable to log in APP, and they have to return to the traditional class. Secondly, for the older teachers, it is an over high requirement to make them learn a new technology, and many old teachers are particularly incompatible with information and thinking that the classroom would be complicated by it and teaching is the thing about teaching and learning. Due to the too fancy current means, more various forms and more lures, students cannot concentrate to study and research much more. Thirdly, most schools have not really set up a teaching resource database platform, and have no profound understanding on the construction of resource database and the reform of information-based teaching. Teachers are still in a state of preliminary understanding and application for micro and curtain courses, and lack of awareness of the construction of co-constructed and shared resources [2].

D. Great Effort is put into Construction, and Publication is Insufficient

There are more than 800 higher vocational colleges initiated the construction of teaching resource database in China, and more than 90 professional resource databases passed the national level project approval, covering all (19) higher vocational major categories, and almost covering all higher vocational colleges all over the country, and each of the participating colleges has the promotion tasks of 4-8 schools. Therefore, the popularity of the resource database should be relatively large. But the vocational education digital study center of wisdom vocational education has not been very hot, even worse than some private enterprises’ resource database platform. The reason for it lies in insufficient propaganda. The promotion task of the participating schools is point to point, that is, the course corresponds to the course, and it does not stipulate how much time the promotion needs to take, so long as the data record is left behind, so the promotion of the participating units has not achieved the due effect. Teachers do not use it much, and the students use it even less, which is the result from information asymmetry. And learning search is not in the daily search range of higher vocational college students.

The network propaganda is not satisfactory. The author respectively input a few key words in Baidu Search to search. For the search of the words "professional teaching resource database", there were about 3.53 million retrieval results. For the search of the words "excellent course", there were about 10.4 million related results, while for the search of words "wisdom vocational education", there were about 1.69 million results, and for the search of the words "vocational education and digital study center", there were fewer retrieval results, only 1.32 million. The possible correlation can be seen from the retrieval results [3].

The propaganda of professional teaching resource database of vocational education is obviously insufficient, and the reason is that the project approval, construction, acceptance and others of the professional teaching resource database of vocational education are determined by the competent department of education, that is, their customer, and the students and the social learners have not constituted the
customers of the construction units. It can be seen that learners' needs and participation are not important considerations.

III. PROMOTION STRATEGY OF PROFESSIONAL TEACHING RESOURCE DATABASE OF VOCATIONAL EDUCATION

The aim of professional teaching resource database of vocational education is to serve teachers, students and social users and improve the training quality of professional talents. In the course of construction of professional teaching resource database, the concept of "User First" should be held, and the most important stakeholders such as teachers, students and social learners are introduced into construction process, and meanwhile, the benefit maximization of all stakeholders is kept balanced. If we want to do that, we need to improve in two ways.

A. Guided by the Idea of "User First" to Complete the Construction of Resource Database According to Users' Preferences and Needs

First of all, it is for student learners. Firstly, before the construction of the resource database, the users' needs should be investigated and analyzed, and the method of big data analysis can be used to obtain the users' consumption preference, living habits and information access channel. The resources of the construction should meet the needs of the students. Students in higher vocational colleges lack patience, like interesting questions and prefer practical training and "situational" content knowledge learning. Therefore, the resources should form a series of short and small contents of which profound theories can be explained in simple language, easy to understand and which are produced with excellent products well to attract students to watch, changing embarrassment of using for use. Secondly, we should study the students' habits when using Internet and their preference for web browsing whether by mobile phone APP platform or WeChat mobile terminal. We should use as many network tools as possible to facilitate students' use and learning. Today, WeChat is an indispensable tool, but this part is still absent in the resource database.

Secondly, it is for teacher users. The use of the resource database for teaching is a subversion of the traditional teaching model. It is a major reform. In the process of popularization, teachers should be taken as the key object. If the teacher uses it in the class, it will be spread to the whole class. It is very convenient and effective. Therefore, teachers' behavior should be supported, encouraged and rewarded accordingly. The relevant construction units and promotion units of the resource database should have corresponding measures to protect it.

Thirdly, it is for the social learners. First of all, we should understand the learning needs of the social learners, for work training or textual training. We should prepare different resources for different needs and set up keyword search to present the required resources to those who need them.

B. In Addition to Meeting the Needs of Users, the Sustainable Promotion of Resource Database Depends More on Changing the Supply Side.

Firstly, we should improve the quality of resources and adhere to the concept that "content is the king and quality is the first". In today's information explosion, all kinds of resources are rich and colorful, so only high-quality resources which can meet the needs of the users can stand out in the same kind of resources, and public praise can be formed with the dissemination. At present, the resource database is being constructed just for construction. In the strict performance appraisal, the primary task is to get enough resources to complete the task. Many unqualified resources are flooded into learning platforms. The constructors and the suppliers should be clear about the supply positioning: by whom it is used and what functions it has. The suitable and high quality resources should be provided according to the needs. Too many unqualified resources stacking up will lead to poor user learning experience. Now there are so many open courses and resource databases, so users will not return once they are leaving. Therefore, in order to retain the users, we should study the needs of users, improve the supplied resources, increase the quality of resources and change the position of constructing for the construction.

Secondly, it is to stick to the goal of construction. The state acts a capital contributor, the speech, views and ideas of the relevant leaders and the authoritative experts with the background of competent authorities of the state will often become the direction indicators. In order to respond to these speeches and views, the construction content should be changed accordingly, so that he project constructors and the development teachers are also incompetent and the needs of teacher users are also ignored in practice. Therefore, we must firmly stick to the established construction goals and complete the construction of the resource database according to the designed planning.

IV. CONCLUSION

The application, popularization and construction of the professional teaching resource database of vocational education are complementary to each other. We should understand the needs of the target users, build the high quality resources which can meet the needs of the users, use good platforms and let the users have good use experience, which will help to retain the users, promote the reform of professional teaching, raise the information-based level of teaching and reform of teaching methods and learning methods, so as to ultimately achieve the goal of improving the quality of personnel training and truly play the role of "being able to learn" and "auxiliary teaching".
REFERENCES


