

## Problems and Countermeasures in the Construction of Teaching Resource Database for Vocational and Technical Education

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### Abstract

The vocational and technical education professional teaching resource construction is to promote information technology in the field of vocational education professional teaching and training the important means of integrated application, based on this, this paper analyzes the current Chinese vocational education professional teaching resource database construction existing problems and causes, puts forward the repository should be combined with professional education teaching, integrated into the professional teaching reform efforts; To improve the quality of professional teaching resources based on user demand; Taking the optimization of the learning platform as the breakthrough point, the optimization construction countermeasures of improving the utilization efficiency of the teaching resource database were put forward, so as to form a benign development mechanism of the construction of the teaching resource database of the vocational and technical education specialty and promote the further development of the construction of the resource database.

### Keywords

Vocational and technical education, Teaching resource database, Teaching achievements, Quality of resources, Learning platform.

### 1. Introduction

"To deepen the teaching reform of higher vocational education, to strengthen the construction of professional and curriculum, and to promote high quality teaching resources sharing, improve the quality of personnel training" [1], the China national ministry of education launched in 2010, the higher vocational education teaching resource construction, put forward "according to the 'national needs, the national first-class, professional oriented' request, surrounding countries and emerging strategic industries and pillar industries, service industries and high-end industries, focusing on technical skills talents shortage in professional field, to establish and perfect a batch of high-quality repository." [2] under the advocacy and promotion of the ministry of education, in recent 10 years, vocational and technical education get a rapid development of professional teaching resource database construction, to promote information technology in the field of vocational education professional teaching and training comprehensive application play an important role, but the author through the survey found, vocational and technical education professional teaching resource database construction also has some problems, this paper analyzes the problems existing in the current vocational education professional teaching resource database construction and the causes, puts forward the teaching resource should be combined with professional education teaching, into the professional teaching reform efforts; To improve the quality of professional teaching resources based on user demand; Taking the optimization of the learning platform as the breakthrough point, the optimization construction countermeasures of improving the utilization efficiency of the teaching resource database were put forward, so as to form a benign development mechanism of the construction of the teaching resource database of the vocational and technical education specialty and promote the further development of the construction of the resource database.

## 2. Problems and causes in the construction of teaching resource database for vocational education

Since the national ministry of education launched in 2010, the higher vocational education teaching resource construction projects, China's vocational education got a rapid development of professional teaching resource database construction, however, the author through to the national dozens of professional education and professional teaching resource database and related tracing investigation of vocational colleges, found that part of the vocational colleges in the vocational education still exist in the process of teaching resource database construction's wrong understanding of positioning of the construction of the repository, the construction quality to be improved and application effect remains to be improved, to improve.

### 1)Module 1

There are misunderstandings in the understanding of the positioning of the construction of professional teaching resource database, which leads to the disconnection between the construction of resource database and the practice of professional education and teaching.

Through investigation, the author finds that there are some problems in the understanding of the project attribute, construction subject, construction motivation, teaching reform relationship and construction cycle of the teaching resource database of vocational education specialty, which are mainly manifested in the following three aspects.

First, there is a project-based thinking that resource database construction is a pure information resource development and construction project, and the construction of resource database by project-based means fails to be combined with the reform and innovation of professional education and teaching.

Second, task-based thinking exists, believing that the construction of resource database is a short-term project with declaration as the starting point and acceptance as the end point, and personnel allocation, financial support and work arrangement are carried out by means of sports.

Third, there is a utilitarian thinking, which believes that the construction of resource database is a political achievement project or a symbolic achievement that reflects the strength of the school. The method of bidding is adopted, which does not combine with the actual situation of the school, and a large number of outsourcing construction reports are applied.

This misunderstanding led to major teaching resource construction and overall development of the education teaching, the separation into the professional education of normal teaching reform efforts, highlights a major declaration, construction, acceptance, application, a part of the professional teaching repository declare vigorous, construction and acceptance after the brinkmanship is neglected.

### 2)Module 2

The construction quality of professional teaching resources is not high, resulting in the construction of resource base and user needs.

The author through the survey found that professional teaching resource database construction exist in different degrees for the construction and construction, for the resource and resource, for small class participation, construction team strength is weak, industry enterprise is not high, unreasonable division of tasks, such problems as lack of process management and quality control does not reach the designated position, lead to the repository construction advancement is not enough, lack of originality, applicability, and is mainly manifested in several aspects.

First, part of the repository in the early stage of the construction project demonstration, design, prepare didn't invite industry leading enterprises of high level professional and technical personnel to participate in, combing and analysis of the professional knowledge is not enough, which leads to many a repository of resources not covering all of the professional knowledge and basic skill points, failed to accurately grasp the effective docking, user requirements, the overall design is not reasonable.

Second, The team members of some resource database construction projects are not reasonable. In order to "occupy the site", the team members are not selected to "form a first-class team" according to the requirements of "school-enterprise integration and complementary advantages" of the Ministry of Education. Instead, they are selected to form a team according to their position or relationship. Some participating colleges and universities are only name names without undertaking actual construction tasks, some participating units are unreasonably distributed in different regions, advantageous schools and leading enterprises in the professional field are not included in the construction team, and when selecting team members, it is usually based on personal familiarity, and insufficient consideration is given to the overall improvement of team strength. Part of the repository to young professional teachers in the process of resources construction as the main force, due to the limitation of knowledge reserves and professional work experience, which leads to many repositories fail to reflect the trend of the development of the industry characteristics, cutting-edge technology and the latest achievements, especially in the case of the introduction of professional qualification certificate of international counterpart the expansion of resource shortage, even the existence of the past courseware into video as the phenomenon of library resources.

Third, Part of the repository in the process of resources construction in number of each type of resource for the construction goal, because the pursuit of all kinds of resources for the construction of the number, "for the resource and resource", "video" for video and lead to excessive production problems, this can only use the contents of a text or image can clearly present is made into the phenomenon of animation, video, or even not properly will be a presentation PPT file conversion into a video, or not properly will be part of the video and presentation PPT file material cutting into multiple fragmented resources to others, Part of the time only a few seconds of video resources and pages only a few pages of presentation PPT file and other ultra-micro resources. Some resources have problems in science, accuracy, education and originality, which are far from the quality standard of "national first-class", and the quality of construction is not optimistic.

### 3) Module 3

Poor application of professional teaching resource database leads to the disconnection between the construction of resource database and the construction objective.

Through investigation, the author also found that the professional teaching resource database has problems such as unreasonable user structure, unbalanced user distribution, insufficient service capacity and insufficient application depth, which lead to low utilization rate of the resource database and disconnection with the construction target, mainly manifested in the following aspects.

First, the user structure and user distribution of part of the teaching resource database are unreasonable. Students from participating vocational colleges are the main users, while there are few enterprise users and social learners. Some resource Banks have fewer users and fewer active users. Some users of the teaching resource database are unevenly distributed, and there is a phenomenon of sudden batch registration and periodic sudden use in order to cope with review or acceptance. There are more resource browsing and less interactive learning such as discussion, test and homework.

Second, some teaching resource database user interface is not friendly, common search engines are difficult to search the resources in the resource database, there are certain obstacles in the application of resources, low utilization rate of resources.

Third, some resource Banks have limited service capacity. Due to their low quality, the resource Banks have not been recognized by enterprises in relevant industries, and they have not become part of the training system for employees in enterprises in relevant industries, such as on-the-job training and continuing education, so few social learners use resource Banks for learning.

### **3. Optimize the construction of professional teaching resources database of vocational education countermeasures**

Aimed at the problems of the construction of the vocational education professional teaching resource, the author thinks that vocational education professional teaching database should be according to the

vocational education "market oriented, service development, promoting employment" the direction of running a school and education requirements, based on the professional job requirements and the working process of the typical, follow the "integrated design, structured curriculum, granular resource" the construction of logic resource planning and construction, and focus on the optimization for the following three aspects.

#### 1)Module 1

Combine with professional education and teaching, and integrate into the results of professional teaching reform.

Vocational education professional teaching resource construction should raise awareness, clear positioning, and combining the development of professional education teaching, professional talent training scheme, covers the core knowledge and core skills, into the outstanding achievements in the teaching content and curriculum system reform, meet the needs of online learning and online teaching, and service of professional and technical skills talents cultivating and training work.

#### 2)Module 2

To improve the quality of professional teaching resources based on user needs.

Vocational education professional teaching resource database construction shall invite the industry leading enterprise of professional and technical personnel to participate in high level and analyze the typical professional work, to user needs as the guidance, according to the characteristics of the professional jobs and education informatization characteristics, improve the talent training scheme, design, and overall construction of teaching resources, learning platform, co-construction and sharing mechanism of the formation of the whole system of repository construction top level design; Repository, the standardization of course have to be set according to the talent training scheme, standardized teaching resources should cover professional core knowledge and core skills, the smallest unit of teaching resources should be relatively independent of knowledge or skill points, resources monomer structure should be relatively complete, resource property mark should be clear in the round, for vocational college teachers and students and social learners' retrieval course teaching, learning and group.

#### 3)Module 3

Improve the utilization efficiency of teaching resource database with the optimization of learning platform as the breakthrough point.

In order to solve the unreasonable structure of the user, the user distribution imbalance, application service ability insufficiency, the depth is not enough, should optimize vocational education professional teaching resource platform construction, strengthen the function of the affinity of the user interface, ease of use and compatibility of the system, and make sure that the rolls resources can be commonly used search engines for application, in order to attract cooperated-building vocational colleges students of the vocational college teachers and students, corporate users other than the user and social learners use of resource, improve the repository user number and activity.

"Demand is the driving force for the construction and improvement of the teaching resource database for vocational education majors, and the direct manifestation of demand is" use ".[3] this is a sentence pointed out by the expert of the construction project of vocational education teaching resource database in an interview, which indicates the importance of building professional teaching resource database based on user needs. The construction of the teaching resource database of vocational education in the new era should no longer be the random piling up of resources and making up the number, but should be combined with the Internet and big data to form an overall system. The construction of the system should make learners "easy to use" as much as possible according to the learning habits and learning needs of various learners.on the other hand, attention should be paid to collecting users' experience, evaluation and Suggestions on teaching resource database, because these experiences, evaluation and Suggestions will directly affect the later construction, improvement and optimization of the resource database.

## References

- [1] The ministry of education higher education department, the implementation of higher vocational education teaching repository 2010 annual work of project application, notification (high department letter [2010] no. 129), [EB/OL] [http://www.moe.gov.cn/s78/A08/s4532/t201005/t20100530\\_113163.html](http://www.moe.gov.cn/s78/A08/s4532/t201005/t20100530_113163.html)
- [2] The department of education office, office of the ministry of education on career education professional teaching database related work notification, 2019 [EB/OL] [http://www.moe.gov.cn/srcsite/A07/moe\\_953/201905/t20190510\\_381471.html](http://www.moe.gov.cn/srcsite/A07/moe_953/201905/t20190510_381471.html)
- [3] Zhai Fan. Why can't teaching resource bank catch fire?[N]. China education news, 2015-11-12009.