# Research on the Construction of Teaching Resource Database of Communication Engineering Specialty in Application-oriented Universities

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#### **Abstract**

Carrying out the construction of professional teaching resource library is an important measure to actively promote the teaching reform and development of applied undergraduate colleges. This paper expounds the importance of the construction of professional teaching resource pool in the light of the uneven distribution, the low sharing rate, the repetitive construction and the lack of collaboration between the current teaching resources of colleges and universities. At the same time, according to the actual construction of Binzhou University, this paper focuses on the training of applied talents and discusses the architecture, basic ideas and concrete contents of the construction of professional teaching resource library.

## **Keywords**

Application-oriented; Universities; Communication Engineering; Teaching Resource Database.

## 1. Introduction

With the development of information technology in modern society, information technology is widely used in the current teaching and teaching work of higher education institutions, and eventually in the form of teaching information resources for education and teaching services. Teaching information resources is the basis of modern higher education teaching and learning, which makes the construction of professional teaching resource library become modern university information, network construction of the basic requirements, but also the local colleges and universities active transformation and development, training application talents means.

The so-called teaching resource library is based on the corresponding technical standards and norms, to build a network, dynamic and scalability and other characteristics, set teaching, learning, communication and management as one of the shared professional resource platform. In view of the current uneven distribution of professional teaching resources in colleges and universities, the sharing rate is low, repetitive construction, lack of cooperation between each other and other issues, combined with Binzhou University, the actual construction of communication engineering practice, based on the application of personnel training professional teaching resources Library construction.

# 2. The importance of resource library construction

Professional teaching resource library as an important resource education platform in education and teaching work, construction of good and bad will directly affect the professional level of education and the quality of personnel training. Therefore, the construction of professional teaching resource library has the following importance.

#### 2.1 Meet the orientation of Binzhou University

Binzhou University, as an applied local undergraduate colleges, to the application of personnel training as the goal, is located in the hinterland of the Yellow River Delta-Binzhou City, Shandong Province, docking "Yellow and Blue Zone" two major national strategies for regional economic construction to provide talent And intellectual support. Teaching resource library construction will focus on the orientation of Binzhou University, combined with the training objectives of

communication engineering professional application talents, and actively promote the application of teaching reform and development, the construction of regional characteristics of professional, to promote professional sustainable development for professional personnel training Strong protection.

#### 2.2 Promote the construction of school education information

In modern society, the deep integration of information technology and educational technology, teaching resource library construction has become one of the important aspects of school information construction. The construction of professional teaching resource library is to make full use of modern information technology, to build the platform of teaching resources, to realize the sharing of professional teaching resources, to enrich the teaching mode and teaching methods, to promote the construction of modern education information, to provide a strong technical support, and thus promote professional teaching reform.

#### 2.3 Boost the cooperation between schools and enterprises to achieve a win-win situation

The construction of professional teaching resource library is an important promoter of the cooperation and development of "production and research", which will help to promote the cooperation between schools and enterprises. The school and enterprise will build professional courses and share teaching resources, so as to promote the deep cooperation between schools and enterprises.

# 3. The basic structure of resource library construction

This paper constructs the basic structure of the professional teaching resource base based on the construction idea of "one center", "three objects" and "five levels" of "one three five" As shown in Figure 1. "A center" refers to the teaching resources as the center, closely around the teaching resource library construction, the teaching resources of the hierarchy, modular decomposition, the whole zero; "three objects" refer to college teachers, professional students and related Three kinds of application entities, combined with the application of personnel training system, from the school, outside the school to consider two levels, the teaching resource library mainly serves the teachers, students and enterprises of these three objects; "five levels" refers to the teaching resource library The core content of the construction, namely, professional training standards, professional curriculum resources system, professional practice training system, school and enterprise to build (cooperation) system and online communication and evaluation mechanism five aspects.

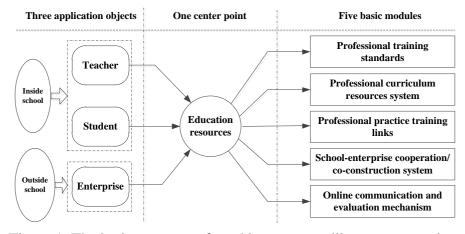


Figure 1. The basic structure of teaching resource library construction

## 4. The basic idea and concrete content of resource library construction

Combined with Binzhou University and ZTE enterprises to carry out school-enterprise cooperation to build the actual communication engineering, from the system module, platform construction and application and management of three levels of teaching resource library construction and practice, the basic idea of building as shown in Figure 2.

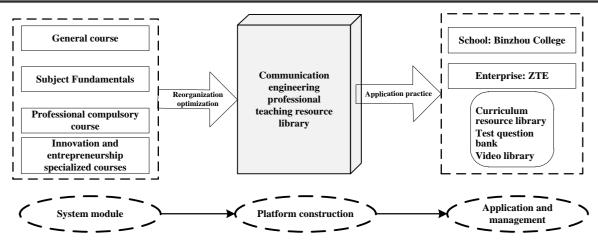


Figure 2. The basic idea of teaching resource library construction

According to the basic idea of construction, the author analyzes the training program of anatomical communication engineering specialty, and designs and decomposes from the aspects of professional training standard, professional training program, curriculum teaching resource system, teaching teacher team and network Resource library platform five levels, the construction of communication engineering professional teaching resource library, the specific content of the framework shown in Figure 3.

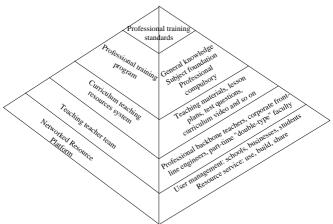


Figure 3. The concrete content frame of teaching resource library construction

## **4.1 Professional training standards**

According to the orientation goal of cultivating application talents in Binzhou University, the training standard of communication engineering specialty is mainly established, which mainly covers the training goal, the specifications and requirements of training, the industry standard, the professional running conditions and the professional introduction.

## 4.2 Professional training program

Based on the main course of communication engineering, as well as professional core curriculum, the professional training program is analyzed and decomposed to construct a modular professional curriculum structure, and the system is further integrated and optimized. The modules are set up with general education module (Compulsory, elective), subject basic education module, professional education module (compulsory, elective), innovative business courses and focus on practical links and other modules.

## 4.3 Curriculum resource system

Curriculum resources system is the teaching of resources to text, video, pictures and other media forms, the most simple and direct performance, which is the core of the construction of the library. In particular, it contains curricula (course syllabus), teaching plans, teaching cases or projects, multimedia materials (courseware, video) and curriculum exercises (questions).

## 4.4 Teaching teacher team

Teaching team is the main body of the construction of the resource library, in the construction based on the "introduction, going out" principle, to encourage professional key teachers in-depth to the enterprise line up training, practice training to improve the practical teaching ability; First-line engineers as the core of the engineers team into the classroom, with the school teachers to cooperate in the completion of teaching tasks, and strive to create a rational structure of the school, skills and complementary advantages of the "double-type" teaching team.

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## 4.5 Networked Resource Platform

Relying on the existing network resources of the school, a clear resource library construction needs, rational planning, co-ordination arrangements, based on teachers, students and cooperative enterprises three different subjects of communication engineering professional network resource library platform, user role, And sharing of teaching resources, to achieve resource services.

## 5. Summary

For higher education, the professional teaching resource library can integrate and optimize the professional teaching resources, adapt to the needs of the country to cultivate the applied talents, and build a network of teaching resources sharing platform for schools and enterprises to serve the teachers' teaching Work, to promote students' self-learning, to achieve the depth of school-enterprise integration, construction of school-enterprise collaborative education of the new model. Therefore, it is of practical significance to carry out the construction of teaching resource library of communication engineering based on the cultivation of applied talents, which can promote the development of professional connotation and enhance the strength of professional education.

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