

# Research on Teaching Strategies of Higher Vocational Labour Education Courses based on OBE Concept

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## Abstract

Labour is an important part of building an education system for the comprehensive cultivation of morality, intelligence, physical fitness, aesthetics and aesthetics. Labour education is the fundamental way to cultivate talents in higher vocational colleges. This paper analysed the connotation of labour education, sorted out the basic principles of the OBE concept in the reform of higher vocational professional courses. Taking the higher vocational telecommunication major as an example, the teaching implementation strategy of the labour education practice course under the concept of OBE is explored around the determination of the expected teaching results and teaching subjects of the labour education course, the design of teaching carriers and teaching programmes, the construction of the teaching practice environment and the teaching evaluation system.

## Keywords

Labour Education; OBE Concept; Curriculum Reform; Teaching Strategy.

## 1. Introduction

Labor education is an important component of China's education system. In the "Opinions on Comprehensively Strengthening Labor Education in Universities, Middle Schools, and Primary Schools in the New Era" issued by the State Council in 2020, the top-level design and comprehensive deployment of labor education in the new era were made, requiring that labor education be included in the entire process of talent cultivation. In the implementation process of professional teaching, vocational colleges should actively explore scientific ways to cultivate students' labor emotions and labor skills. The concept of Outcomes-Based Education (OBE) is a teaching model based on learning output. Its core idea is to value students' learning outcomes, highlight their central position, start from the learning outcomes that students need to achieve in the future, analyze their core competencies, and then make strategic retrospective designs. This study aims to introduce the OBE concept into the teaching practice of higher vocational telecommunications courses, explore strategies for integrating labor ethics education with professional skill training, guide students to form correct labor values and good labor quality, and help achieve the goal of vocational talent cultivation.

## 2. The Connotation of Labor Education

Labor is the foundation for the existence and development of human society, and labor education has unique educational value and is an important educational measure to achieve comprehensive human development. Marx once pointed out in "Capital" that the combination of productive labor with intellectual education and sports is not only a way to improve social production, but also the only way to cultivate fully developed individuals. Cai Yuanpei describes the significance of labor education in this way: "Therefore, when studying the education industry, both brain and labor must be used together, otherwise good results cannot be

achieved." As an important component of the education system, vocational colleges follow the three dimensions of knowledge, ability, and literacy in talent cultivation, and shoulder the responsibility of cultivating and delivering "great country craftsmen" for the economic and social development of the new era. Integrating the meaning of labor value and morality into vocational teaching practice can exercise students' willpower, cultivate their labor ability and habits in the process of cultivating professional theories and skills. It can be seen that labor education plays a comprehensive educational value of cultivating morality, increasing intelligence, strengthening physical fitness, and cultivating beauty, and is the fundamental way to promote students' comprehensive development.

### **3. Principles of Curriculum Reform in Higher Vocational Education based on OBE**

OBE, also known as result oriented education, refers to an educational model in which the organization and implementation of the education system are student-centered, with educational output effects as the guidance for teaching evaluation. The basic concept of teaching design and implementation is: first, clarify the specific content of learning outcomes; Secondly, develop strategies for obtaining learning outcomes; Finally, determine the degree of achievement of learning outcomes.

The teaching reform of vocational courses based on the OBE concept should follow the student-centered principle. As different learning individuals, students have differences in their learning foundation, abilities, and attitudes. The teaching reform under the OBE concept requires teachers to be able to conduct sufficient analysis of their learning situation, focusing on knowledge and skill foundations, cognitive and practical abilities, learning interests and methods, etc., scientifically design teaching, guide students to determine learning goals based on their self-development needs, and engage in learning activities.

The teaching reform of vocational courses based on the OBE concept should follow the principle of results oriented. It is necessary to construct a curriculum system based on the professional talent cultivation goals of the industry (enterprise), and then decompose and map the teaching objectives described in the curriculum standards into the knowledge, skills, and literacy achievements that students should achieve. Through the integration of teaching resources, the creation of teaching environment, the organization of teaching activities, and the evaluation of teaching effectiveness, students are guided to achieve the expected learning outcomes.

### **4. Teaching Strategies for Practical Courses of Vocational Labor Education under the OBE Concept**

#### **4.1. Determine the Expected Outcomes of Labor Education Practice Courses**

The expected outcomes of labor education practice courses mainly cover two aspects: firstly, the acquisition of labor skills; Secondly, educational achievements in ideological and moral character. Taking the Electronic Information Engineering Technology major (hereinafter referred to as the Telecommunications major) as an example, the overall goal of talent cultivation is to cultivate high-quality talents with good professional ethics and literacy, respect for labor, love for work, and a spirit of craftsmanship that strives for excellence, and possess labor practice abilities competent for positions such as intelligent electronic hardware system design and sensor network system integration. By utilizing the OBE concept and following the principle of reverse design, the goals of labor education and talent cultivation are mapped into curriculum teaching objectives, and the expected results of labor education practice are determined. Among them, the acquisition of labor skills mainly involves achieving the goals of skilled and knowledge-based labor abilities in professional courses, specifically manifested as

whether one is competent in technical operation and maintenance of intelligent electronic hardware design, sensor network operation and maintenance related positions, as well as engineering practical abilities in after-sales and service; The educational achievements of ideological and moral character are manifested in the labor values of excellent moral quality, love for labor, and the cultivation of both morality and technology, as well as the sense of responsibility of giving back skills to society. Based on the above objectives, combined with the coherence and integrity of the curriculum and future career positions, as well as the guidance and follow-up courses, determine the expected learning outcomes of the professional curriculum and form corresponding curriculum standards.

#### **4.2. Develop Teaching Strategies for Practical Courses in Labor Education**

The purpose of labor education and OBE education is to promote the comprehensive development of students, and students have always been the subject and core of labor education and OBE concepts. The teaching strategy of vocational labor education practical courses based on the OBE concept should scientifically adhere to the student-centered approach throughout the entire teaching process. Firstly, the selection of teaching carriers for practical courses in labor education should focus on analyzing the actual learning situation. The analysis of academic situation should not only cover the individual learning foundation and characteristics of students, but also take into account their current employment positions and career development. Taking the telecommunications major as an example, according to research data, more than 51% to 67% of graduates are engaged in sensor data collection and network design and operation maintenance work, and about 72% of students on campus have a willingness to work in this position. Therefore, the teaching carrier will focus on the design, operation and maintenance of industrial sensor networks, select typical work tasks, and integrate teaching resources. Secondly, the design of teaching plans for practical courses in labor education should focus on students' self-development needs. When designing teaching, we should break through the fixed thinking of first theory, then skills, and then qualities. We will analyze the teaching activities of practical courses into three core elements: labor consciousness, labor skills, and labor creation. We will carry out practical teaching activities around three aspects: labor literacy training and students' personal literacy improvement, labor skill training and students' professional skills acquisition, and labor creation and students' individual innovation awareness stimulation. For example, typical application cases of applying the electronic information industry to the development of science and economy, creating teaching scenarios in the form of news, micro courses, animations, etc., inspiring students to think about the significance of labor; Integrate labor standards and process standards in electronic hardware design, sensor network operation and maintenance positions into professional course practice teaching, guiding students to acquire labor skills; The typical deeds such as model worker and master craftsmen will be embedded into the innovation concept and entrepreneurship education, encouraging students to reflect on and improve, and enhancing the awareness of labor creation.

#### **4.3. Building a Practical Curriculum Environment for Labor Education**

In the context of rapid technological development, the demand for comprehensive labor literacy of talents in society and enterprises is also constantly increasing. Compared with ordinary universities, vocational colleges have natural advantages in implementing labor education, both in terms of talent goals and teaching practice environment. Based on the OBE concept, labor education practical courses should not only improve the campus labor education practical teaching environment, but also fully tap into various resources, scientifically construct a diversified practical learning environment, stimulate students' exploration awareness, form labor concepts, master labor skills, and achieve the expected result orientation of labor education. For example, when carrying out practical teaching of labor education in the

telecommunications major, students are organized to visit the production site of cooperative enterprises. In the electronic product production workshop, students are allowed to experience the labor environment and labor site management on site, leading them to think about key learning points such as equipment safety electricity use, employee standardized operation, and enterprise on-site management regulations. Employ enterprise engineers and model worker to serve as labor practice teaching, optimize the teaching staff, introduce new technologies and standards for industry development, carry out practice teaching according to job operation specifications, and cultivate students' labor concept of lifelong learning. Utilize the advantages of school enterprise cooperation, enrich labor education practice bases, introduce horizontal projects of professional and technical services, provide order training or student assistance practice positions, and ensure that students have a firsthand experience of applying labor skills, testing labor effectiveness, and creating meaningful labor.

#### **4.4. Innovative Labor Education Practice Course Evaluation Mechanism**

The evaluation mechanism of labor education practical courses based on the OBE education concept is an important part of teaching reform, and the focus of evaluation is to determine the degree of achievement of students' labor skills acquisition and ideological and moral education achievements after the implementation of labor education courses. The construction of evaluation mechanism mainly includes two levels: students and curriculum. The evaluation mechanism at the student level should focus on recording students' insights and gains in the process of labor education practice, and pay attention to the improvement of students' professional qualities such as being hardworking and striving for excellence in the process of labor practice. In the process of curriculum practice, it is necessary to actively build a space for students to realize their labor value and self-worth. Taking telecommunications as an example, students are encouraged to actively participate in community service activities such as electrical maintenance. The behavior of students using their labor skills to serve society and engage in innovation and entrepreneurship projects should be included in the comprehensive quality evaluation system of students. The evaluation at the curriculum level can adopt a multi-dimensional mixed evaluation method, with teachers, students, and enterprise experts as the evaluation subjects, to evaluate the practical effects of applying labor skills to practical problem-solving, applying labor attitudes to team division of labor and collaboration, applying labor habits to standardized job operations, and applying labor expansion to continuous learning and improvement. Guide students to enhance professional pride and social responsibility through participation in electronic skills competitions, research on horizontal projects in enterprises, certification of skills, and internships in professional positions, forming value-added evaluations.

## **5. Conclusion**

Labor education is an important part of the socialist education system with Chinese characteristics, which directly determines the labor spirit, labor value orientation, and labor skill level of socialist builders and successors. Under the OBE concept, the practical course of labor education in vocational telecommunications majors emphasizes the subjective position of students and the scientific application of teaching strategies, pays attention to the integration and infiltration of labor education connotation and professional course teaching, attaches importance to the aggregation of educational resources and the scientific evaluation of educational effectiveness, which helps to extend and enhance the value of labor education implementation.

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