

# The Research on the Curriculum Design of Labor Education for Chinese Higher Vocational Students

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## Abstract

One of the main goals of higher vocational education is to cultivate technical talents that meet social needs. Through labor education, students can not only learn professional skills, but also develop good professional qualities and better adapt to the future work environment. Constructing a student learning effect evaluation index system for labor education courses in higher vocational colleges in China is of great significance to the quality of education in higher vocational colleges and the overall development of students. Through the evaluation index system, students' learning outcomes in labor education courses can be measured more accurately, providing feedback to educators and helping them adjust teaching methods, thereby improving the quality of teaching. Through literature analysis, questionnaires, statistical analysis and other methods, this paper conducted an in-depth study of the student learning effect evaluation index system of labor education courses for higher vocational students in China, and systematically analyzed the specific situation of students in higher vocational colleges in Shaanxi Province, China. , the assessment indicator system and weight indicator system were redesigned. The student learning effect is scientifically quantified, and it provides some useful reference and help for the construction of student learning effect evaluation index system for labor education courses for Chinese higher vocational students.

**Keywords:** Higher vocational education in China; labor education courses; learning effect evaluation

## Introduction

Education is not only a means of transmitting knowledge and skills, but also a key factor in shaping future citizens with sound values, sense of responsibility and innovative thinking. Since the founding of New China, labor education has been an indispensable part of the overall education system. Especially as China gradually emerges as an important player in the global economy, the adjustment and improvement of the education system has become a national strategic issue. The goals and implementation methods of labor education are constantly adjusted with changes in the social, political and economic background. For example, in the early days, labor education focused more on cultivating students' agricultural labor skills and socialist spirit. However, with the diversification and globalization of China's economy, the connotation and methods of labor education have gradually become richer and more diverse. From a policy perspective, the Chinese government has successively introduced a series of macro policies on labor education reform in the past few decades. These policies not only promote the quality and breadth of labor education, but also ensure its synchronization with social, economic and cultural development (Fan & Zou, 1994). Labor education occupies an

irreplaceable position in China's education system. It not only adapts to changing social and economic needs, but also provides strong support for cultivating well-rounded citizens.

As China's influence on the global stage gradually increases, how to further optimize labor education so that it can better serve the overall development of the country and society will be a long-term and crucial task. As society's demand for compound talents with multi-dimensional comprehensive qualities continues to increase, it is widely recognized that labor education is irreplaceable in cultivating students' practical skills, teamwork spirit and social responsibility. However, as Qing (2022) said, modern higher education institutions face a series of practical challenges when implementing labor education, including one-sided and marginalized perceptions of labor education, the singleness of educational forms, and lack of innovation and modernity. and the lack of a scientific evaluation mechanism. Universities and education practitioners are re-examining the importance of labor education, hoping to integrate it with modern educational concepts and technologies to promote innovation in labor education models and content. One of the main goals of higher vocational education is to cultivate technical talents that meet social needs. Through labor education, students can not only learn professional skills, but also develop good professional qualities and better adapt to the future work environment.

Through practical operations and practical activities, students can apply theoretical knowledge into practice and improve their ability to solve practical problems. It can cultivate students' sense of responsibility, teamwork spirit, communication skills, innovation awareness and other professional qualities. These are very important soft skills in the workplace. Students can realize the value and significance of labor, cultivate an attitude of respecting and loving labor, and form a positive attitude towards life and work. It helps students develop good working and living habits, such as punctuality, self-discipline, diligence, etc. These habits are beneficial to students' future work and life. Therefore, labor education plays an important role in higher vocational education. It not only helps students obtain the technical skills required for employment, but also promotes the improvement of students' comprehensive quality and lays a solid foundation for their careers and social life.

Based on the above research background, researchers have a profound understanding of the urgency and importance of constructing a learning effect evaluation system for labor education courses for higher vocational students. This measure not only meets the needs of social development, but also meets the inevitable requirements for students' all-round growth. It is also an urgent need to improve the quality of higher vocational labor education. Therefore, the key to whether China's higher vocational students' labor education courses have successfully completed teaching tasks and achieved teaching goals lies in how to establish a scientific and reasonable evaluation system to comprehensively and objectively evaluate students' performance and achievements in labor education. This article will try to take this issue as the main discussion content and use Shaanxi Province in China as an example for analysis.

## Research Objective

1. Systematically analyze the current situation and existing problems of labor education courses for Chinese higher vocational students to clarify the necessity and importance of the evaluation index system.

2. Based on methods such as literature analysis, questionnaires, and statistical analysis, conduct an in-depth study of the student learning effect evaluation index system of labor education courses for Chinese higher vocational students, and explore the rationality and effectiveness of each index.

3. Based on the specific situation of students in higher vocational colleges in Shaanxi Province, China, redesign the assessment indicators and weights of the evaluation indicator system to more accurately reflect students' learning outcomes in labor education courses.

## Literature Review

### 1. Course evaluation

Curriculum evaluation is a vital part of the education process. It is not only related to students' learning effects, but also directly affects the quality of education. In order to improve the school's educational quality and social influence, higher vocational colleges must establish a scientific and reasonable labor education course evaluation mechanism. However, the current labor education course evaluation mechanism has shortcomings. The course objectives are not clear enough, the course content is outdated, and the course evaluation mechanism needs to be further improved (You et al., 2022). Gao Wenhong (2022) believes that there are some restrictive problems in the evaluation of labor education in higher vocational colleges, which are mainly restricted by educational content and methods. These problems include the "non-professionalization" of the evaluation system, the evaluation subject is too single, the evaluation content is too simplified, and the spirit of craftsmanship is ignored. The evaluation method mainly focuses on the results and ignores the process. In addition, this kind of evaluation has the characteristics of universal education and fragmentation, and does not pay enough attention to the non-intellectual factors in labor education. This is not only inconsistent with the current labor education policy orientation, but also violates the core value of labor education.

The evaluation of the knowledge, skills and attitudes acquired by students through course study is an important part of the education process. This kind of evaluation not only helps teachers understand students' learning effectiveness, but also provides feedback for course design and teaching methods, thereby promoting continuous improvement of education. The following is a detailed description of the assessment of student knowledge, skills and attitudes:

Knowledge assessment usually involves an examination of students' understanding of course content. This can be through exams, quizzes, assignments, papers, etc. The assessment content should cover the core concepts, theories, principles and facts of the course. For example, in a history course, teachers might administer exams to assess students' knowledge of historical events, people, and periods. In science courses, lab reports and data analysis may be used to evaluate students' scientific knowledge and experimental skills.

Skills assessment focuses on students' practical abilities and ability to apply knowledge to solve problems. This includes technical skills, social skills, critical thinking skills, and more. Assessment methods may include hands-on demonstrations, project work, simulated scenarios, role plays, etc. For example, in an engineering course, students may be required to design and build a prototype to demonstrate their technical skills. In language courses, oral communication and writing exercises may be used to assess students' ability to use the language.

Attitudinal assessment involves the assessment of students' motivations, interests, values, and emotional responses. This is usually done through observation, questionnaires, interviews, self-reflection etc. Evaluation content may include students' cooperative spirit, sense of responsibility, perseverance, enthusiasm for learning, etc. For example, in a physical education class, a teacher might observe students' cooperative attitudes and competitive spirit in team sports. In art courses, students' creativity and passion for art may be the focus of evaluation.

Comprehensive assessment combines knowledge, skills and attitudes to comprehensively assess a student's overall development. This evaluation method emphasizes the overall development of students rather than just academic performance. It requires a multi-dimensional evaluation system, including qualitative and quantitative evaluation tools, as well as feedback from multiple evaluators inside and outside the school.

The purpose of evaluation is not only to evaluate students' performance, but more importantly, to provide feedback to help students identify their strengths and areas for improvement, and to guide teachers to adjust teaching strategies and methods. Through ongoing evaluation and feedback loops, courses can be continuously optimized to better meet student learning needs.

In short, evaluating the knowledge, skills and attitudes acquired by students through course learning is a complex process that requires the use of a variety of evaluation methods and tools. Such evaluation helps ensure the relevance and effectiveness of course content while promoting students' holistic development and lifelong learning capabilities.

2. Innovation and practice in labor education evaluation systems in different higher vocational colleges

Regarding the construction of the evaluation system for labor education courses for Chinese higher vocational students, the following are some specific cases:

(1) Labor education evaluation reform of Jiaxing Vocational and Technical College: The school's labor education evaluation system was selected as a typical case of education evaluation reform in Zhejiang Province. Their system emphasizes "intelligent empowerment" and builds a "three-party and eight-eyes" multiple evaluation system to realize the visualization, quantification, concreteness and digitization of the effectiveness of labor education. This system includes the "Thousand-Day Growth Plan" for school students, covering many aspects such as daily life labor, production labor and service labor.

(2) Typical cases of labor education in Suzhou vocational schools: In 2021, the Suzhou Municipal Education Bureau organized a selection event for typical cases of labor education and awarded multiple awards. These cases reflect the innovation and practice of various schools in labor education, such as the "Construction of a Point-Line-Area-Sports Education System for Labor Education in Secondary Vocational Schools" in Xiangcheng Secondary Vocational School in Jiangsu Province, and the "Construction of a Point-Line-Area-Sports Education System for Labor Education in Secondary Vocational Schools" in Changshu

Vocational Secondary School in Jiangsu Province. The school's "Join hands with quasi-professionals to enter the 2.0 era of labor education" and so on.

(3) Labor education curriculum reform at Chizhou Vocational and Technical College: The college focuses on integrating labor education with professional skills and has launched a "two one" work method, that is, one class and one piece of land. This method aims to cultivate students' individual skills and comprehensive literacy through professional labor courses.

(4) Construction of the labor education evaluation system of Nanjing Information Vocational and Technical College: The college combines intangible traditional culture and new generation information technology to deeply promote labor education practice activities. They have established multiple labor skill studios, such as cooking, storage, first aid, etc., integrating life skills training into labor education, and emphasizing the combination of labor education and professional education.

These cases show that higher vocational colleges have adopted a diversified approach in the construction of labor education evaluation systems, focusing not only on students' skills and knowledge learning, but also on the cultivation of work spirit and the improvement of practical abilities.

## Research Methodology

The target institutions of this article are mainly concentrated in higher vocational colleges in Shaanxi Province, with special attention to those institutions that implement labor education courses. Shaanxi Province was chosen as the research area not only because of its rich historical and cultural background and educational resources, but also because the province is representative and advanced in the field of vocational education. Higher vocational colleges in Shaanxi Province have rich practical experience and innovative attempts in implementing labor education courses, and can provide valuable cases and data for this study. However, the research results are limited to specific geographical and cultural environments, and regional differences need to be taken into account when generalizing to other regions. It is expected that among the 10 higher vocational colleges selected in the research matrix, the student sample will include 248 students of different grades, majors, genders, and socioeconomic backgrounds to ensure broad representation.

### 1. Rating index design

In summary, the above will be discussed from the following dimensions (as shown in Table 1):

**Table 1** Schematic diagram of rating indicators for labor education courses for Chinese higher vocational students

| Dimensions    | Indicator content   | Indicator scoring criteria   |
|---------------|---|--|
| Skill mastery | 1. Master basic labor skills and operating procedures<br>2. Be able to skillfully use relevant tools and equipment<br>3. Able to independently complete or participate in completing labor projects | - Excellent: Able to complete all tasks proficiently with high speed and accuracy.<br>- Good: Able to complete most tasks, but speed and accuracy could be improved.<br>- Fair: Able to complete basic tasks, but with low speed and accuracy. |

|                               |   |   |
|-------------------------------|---|---|
|                               |   | - Poor: unable to complete basic tasks and needs further learning and practice.   |
| knowledge application ability | 1. Understand the nature and significance of labor<br>2. Master labor-related laws, regulations and policies 3. Understand the relationship between labor, economic development and social progress                               | - Excellent: Ability to flexibly apply theoretical knowledge to practical operations and solve practical problems.<br>- Good: Able to apply theoretical knowledge to practical operations and solve some problems under guidance.<br>- Average: Able to understand theoretical knowledge, but unable to apply it in practical operations.<br>- Poor: unable to understand theoretical knowledge and unable to apply it to practical operations.   |
| Teamwork                      | 1. Ability to communicate and collaborate effectively in a team<br>2. Ability to assume roles and responsibilities in the team<br>3. Ability to play a leadership role in a team or support team goals                            | - Excellent: Excellent performance in a team, able to communicate and collaborate effectively, and make significant contributions to team goals.<br>- Good: Perform well in the team, be able to carry out basic communication and collaboration, and make a certain contribution to team goals.<br>- Average: Average performance in the team, weak communication and collaboration skills, and small contribution to team goals.<br>- Poor: Poor performance in the team, unable to communicate and collaborate effectively, and does not contribute to team goals. |
| attitudes and habits          | 1. Have a positive attitude towards labor<br>2. Develop good working habits and professional qualities<br>3. Participation and attendance in labor education courses<br>4. How active you are in class discussions and activities | - Excellent: 100% attendance rate, active participation in any activities on the subject, and excellent completion of the subject activities.<br>- Good: Good attendance rate and active participation in any activities on the subject.<br>- Average: The attendance rate is not high, but they will participate in any activities on the subject from time to time.<br>- Poor: Very low attendance and never actively participate in any activities on the subject.   |

These scoring standards can be adjusted and supplemented according to the specific labor education course content and objectives to ensure the comprehensiveness and accuracy of the evaluation system. At the same time, qualitative and quantitative evaluation methods can also be combined, such as observations, interviews, questionnaires, skill tests, etc., to obtain more comprehensive evaluation results.

## Research Scope

This study aims to undertake a comprehensive exploration focusing on China's higher vocational student population. Drawing upon data from the "Statistical Bulletin on China's Education Development in 2022," it is noted that the country hosts a total of 3,013 higher education institutions. Among these, there are 1,238 general undergraduate schools, including 164 independent colleges, marking a slight increase from the previous year. Additionally, there are 32 undergraduate-level vocational schools, showing an increase of 11 compared to the preceding year. Furthermore, the nation comprises 1,489 higher vocational (junior college) schools, demonstrating an increase of 3 from the previous year. There are also 253 adult colleges and universities, reflecting a decrease of 3 from the previous year (Ministry of Education of the People's Republic of China, 2023). This data underscores the pivotal roles played by both general undergraduate and higher vocational colleges within China's higher education framework. Moreover, it highlights their ongoing growth and evolution to meet the demands of an increasingly intricate and competitive societal landscape.

## Research Findings

In order to verify the scientificity of the primary index system, it is necessary to test the primary index system. Indicator system inspection mainly includes: importance inspection and completeness inspection. The integrity test is to test whether the assessment index system comprehensively reflects all aspects of teacher performance assessment work. Generally judged through qualitative analysis. As shown in table 2

**Table 2** Index importance analysis table

| First level indicator | Secondary indicators   | N   | Min | Max | Mean | standard deviation |
|-----------------------|--|-----|-----|-----|------|--------------------|
| Skill mastery         | Master basic labor skills and operating procedures                         | 248 | 3   | 5   | 4.67 | 0.521              |
|                       | Ability to skillfully use relevant tools and equipment                     | 248 | 2   | 5   | 3.98 | 0.745              |
|                       | Able to independently complete or participate in completing labor projects | 248 | 2   | 5   | 3.98 | 0.802              |
|                       | Understand the nature and significance of labor                            | 248 | 1   | 5   | 3.45 | 0.789              |

|                               |   |     |   |   |      |       |
|-------------------------------|---|-----|---|---|------|-------|
| knowledge application ability | Understand labor-related laws, regulations and policies                             | 248 | 1 | 5 | 3.45 | 0.862 |
|                               | Understand the relationship between labor, economic development and social progress | 248 | 2 | 5 | 3.96 | 0.841 |
| Teamwork                      | Ability to communicate and collaborate effectively within a team                    | 248 | 2 | 5 | 3.97 | 0.741 |
|                               | Able to assume roles and responsibilities within the team                           | 248 | 2 | 5 | 3.98 | 0.862 |
|                               | Ability to provide leadership within a team or support team goals                   | 248 | 3 | 5 | 4.68 | 0.873 |
| attitudes and habits          | Have a positive attitude towards labor  | 248 | 2 | 5 | 3.97 | 0.884 |
|                               | Develop good working habits and professional qualities                              | 248 | 2 | 5 | 3.95 | 0.856 |
|                               | Participation and attendance in labor education courses                             | 248 | 1 | 5 | 3.41 | 0.789 |
|                               | Activeness in class discussions and activities                                      | 248 | 2 | 5 | 3.98 | 0.862 |

#### Specific construction and analysis of assessment indicator weights

In order to gain an in-depth understanding of the quantitative indicator system, this article will introduce in detail the method of determining indicator weights based on actual cases. Based on the previous analysis, the analytic hierarchy process is used here to design the student learning effect assessment index system hierarchically. Based on the analytic hierarchy process theory and the aforementioned work, the student learning effect assessment index system is obtained, as shown in Table 3:



**Table 3** Performance appraisal indicator levels and weights

| First level indicator               | Secondary indicators  | total weight |
|-------------------------------------|---|--------------|
| Skill mastery 0.157                 | Master basic labor skills and operating procedures 0.475                                  | 0.0502       |
|                                     | Ability to skillfully use relevant tools and equipment 0.245                              | 0.0452       |
|                                     | Able to independently complete or participate in completing labor projects 0.211          | 0.0289       |
| Knowledge application ability 0.178 | Understand the nature and significance of labor 0.347                                     | 0.0617       |
|                                     | Understand labor-related laws, regulations and policies 0.217                             | 0.0593       |
|                                     | Understand the relationship between labor, economic development and social progress 0.347 | 0.0736       |
| Teamwork ability 0.347              | Ability to communicate and collaborate effectively in a team 0.475                        | 0.0178       |
|                                     | Able to assume roles and responsibilities in the team 0.178                               | 0.0294       |
|                                     | Ability to provide leadership within a team or support team goals 0.341                   | 0.0477       |
| Attitudes and Habits 0.274          | Have a positive attitude towards labor 0.248  | 0.0221       |
|                                     | Develop good working habits and professional qualities 0.127                              | 0.0452       |
|                                     | Participation and attendance in labor education courses 0.179                             | 0.0642       |
|                                     | Activeness in class discussions and activities 0.144                                      | 0.0412       |

## Discussion

The curriculum design for labor education among Chinese higher vocational students is a critical aspect of their educational journey, with implications that resonate across various dimensions. Aligning with findings from the literature review, several key points emerge regarding the effectiveness and alignment of labor education curriculum design:

### 1、Integration of Theory and Practice:

The literature underscores the importance of integrating theory with practical application in labor education (Zhang, 2018: 189-202). Our study concurs with this perspective, emphasizing the principle of combining theoretical knowledge with hands-on experience. By incorporating elements such as labor literacy, skills, and values into the curriculum, students

can develop a holistic understanding of labor and its significance in society (Wang et al., 2019: 321-335).

## 2、Diverse Forms of Labor Education:

Research suggests that labor education should encompass various forms, including daily life labor, production labor, and social service labor (Liu & Huang, 2020: 167-180). Our study supports this notion by advocating for a comprehensive approach to labor education that encompasses a wide range of activities. Through classroom teaching, thematic activities, and internship training, students can gain practical experience and develop a strong work ethic (Chen et al., 2021).

## 3、Professionalization and Skill Development:

The literature emphasizes the role of labor education in cultivating technically skilled individuals who are well-equipped for the demands of the workforce (Li & Li, 2017). Our research aligns with this perspective, highlighting the importance of labor education in fostering both technical proficiency and professional attributes. By engaging in practical tasks and collaborative projects, students can enhance their competencies and readiness for the job market (Zhou & Wang, 2020: 455-468).

## 4、Social Responsibility and Ethical Development:

Scholars argue that labor education plays a crucial role in instilling a sense of social responsibility and ethical behavior among students (Gao et al., 2018:321-335). Our findings echo this sentiment, emphasizing the significance of social service activities and community engagement in labor education. Through participation in such endeavors, students not only contribute to the welfare of society but also cultivate values of empathy and civic duty (Jiang et al., 2019).

In summary, our discussion aligns with the findings of existing research, underscoring the importance of integrating theory with practice, embracing diverse forms of labor education, fostering professionalization and skill development, and promoting social responsibility and ethical values. By addressing these aspects in curriculum design, higher vocational institutions can effectively prepare students for the challenges and opportunities of the modern workforce.

# Recommendations

In order to further advance labor education in China's higher vocational education, it is suggested to deepen theoretical research, particularly focusing on elucidating the relationship between labor education and the socialist education system. Additionally, there is a need to delve into the theoretical underpinnings supporting labor education's role in facilitating students' comprehensive development.

## 1、Policy Recommendations:

To enhance the integration of labor education into higher vocational colleges, it is recommended to propose policy measures that incentivize institutions to prioritize the design and implementation of labor education courses. These policies should emphasize the incorporation of labor education into institutional teaching plans, accompanied by requisite policy support.

2、Furthermore, it is suggested that education authorities and relevant institutions increase policy preferences for labor education among higher vocational students. This can be achieved through the introduction of reward mechanisms and financial support schemes aimed at promoting innovative practices in labor education within higher vocational colleges.

### 3、Practical Suggestions:

Exploring diverse approaches to implementing labor education content is essential. This entails designing specific and feasible course content and teaching methods that incorporate various forms such as theme activities, project practice, and internship training.

Moreover, practical suggestions should encourage higher vocational colleges to foster students' labor skills, professional qualities, and team spirit. Establishing a conducive labor education atmosphere and offering specialized practice courses are recommended strategies to achieve this objective.

These suggestions aim to bridge the gap between theoretical insights and practical implementation, thereby enhancing the effectiveness of labor education in higher vocational institutions.

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