Journal of Education and Educational Research
ISSN: 2957-9465 | Vol. 5, No. 3, 2023

Exploration of Professional Labor Education in Vocational Colleges

Xueqin Rong, Yong Liu

Department of Electronic and Communication Engineering, Suzhou Institute of Industrial Technology, Suzhou 215104, China

Abstract: Having both moral integrity and talent is an important goal of high-quality education in universities, and labor education should be integrated into the professional curriculum teaching system, with professional practice as the carrier, emphasizing the infiltration of labor consciousness, labor concepts, and labor spirit, promoting the construction of professional labor education curriculum system, and ultimately achieving the unity of knowledge and action. We should fully leverage the advantages of professional labor education, adhere to the principle of "cultivating morality and talents", implement collaborative education, and achieve explicit and implicit complementarity and integration between professional courses and labor education. Do a good job in top-level design, reflect course characteristics, stimulate students' sense of responsibility and responsibility, attach importance to teacher construction, improve course evaluation, and provide strong guarantees for creating an effective professional labor education curriculum system.

Keywords: Vocational Colleges; Major in Electronic Information Engineering Technology; Professional Labor Education.

1. Introduction

In 2022, the report of the 20th National Congress of the Communist Party of China proposed to improve the "Five Education" education system and cultivate socialist builders and successors with comprehensive development of morality, intelligence, physical fitness, aesthetics, and labor. The education policies of the Party and the state reflect the fundamental requirement of cultivating morality and pursuing the goal of comprehensive human development. Vocational colleges should attach great importance to the prominent position of labor education in the construction of the entire disciplinary and professional curriculum system, especially through top-level design, actively promoting the deep integration of disciplinary and professional education with labor education. The labor education curriculum should not be superficial, fragmented, or utilitarian, but should incorporate labor education into the entire process of talent cultivation, organically integrate it with subject and professional education, build a scientific and effective education system, and comprehensively improve students' labor concepts, labor consciousness, labor spirit, and professional labor literacy. Therefore, based on the actual situation of the electronic information engineering technology major, vocational colleges should have a clear positioning for labor education, rely on professional curriculum teaching, enrich labor curriculum content, innovate labor education channels, and create high-level, excellent subject talents with both moral and talent.

2. The Connotation of Professional Labor Education in the New Era

Labor education cannot be "just talk on paper" and cannot rely solely on single curriculum forms such as "Labor Education Week" and "Labor Class". Labor education should pay more attention to the acquisition of students' labor concepts, hands-on practice, and problem-solving abilities.

2.1. Analysis of the Concept of Professional Labor Education

Professional labor education is reflected in two aspects: professional courses and labor courses, focusing on cultivating workers who are competent in a certain discipline field or professional position. For a long time, professional course teaching has often been dominant in vocational colleges. For example, in the evaluation and teaching evaluation of electronic information engineering technology majors, more emphasis is placed on students' mastery of relevant professional knowledge and professional skills. Obviously, the core task of professional education is to develop students' "professional abilities" and ensure that they are able to meet the job requirements of a certain industry or position. From the perspective of professional education effectiveness, electronic information engineering technology education has a strong occupational tendency, while labor education focuses on learning and cultivating correct labor concepts, attitudes, awareness, and skills. In summary, the core task of labor education is to unify simple labor and knowledge labor, and achieve the coordinated development of ordinary labor and creative labor. In universities, labor education is generally believed to be beneficial for improving students' labor literacy, that is, having a positive labor consciousness and possessing certain labor skills. In addition, labor education should also be included in the talent cultivation goal system, becoming one of the essential qualities for college students. It can be seen that professional labor education can stimulate the initiative and creativity of college students, enhance their sense of social responsibility, innovative spirit, and practical ability, and enable them to obtain a sense of achievement and happiness from real labor.

2.2. The Inherent Consistency of Professional Labor Education in the Field of Electronic Information Engineering Technology

Professional labor education is not an isolated, scattered, or shallow superposition of professional course education and labor education, but rather a natural integration, mutual

promotion, and complementarity of labor education in the construction of professional courses. The understanding of labor values should abandon the simple explanation of labor concepts, values, and other knowledge points, and rely on electronic information engineering technology professional training tasks, project-based themed practical activities, etc. to lead students to consciously participate in professional training related to electronic information engineering technology, truly promoting the deep connection between professional education and labor education. The integration of the two has the following three inherent consistency. One is the common goal of educating people. Professional education and labor education both aim to cultivate high-quality and application-oriented outstanding professional talents, with the possibility of integration. The second is the integration of theory and practice. The education of electronic information engineering technology majors should not only learn theoretical knowledge of the subject, but also attach importance to the cultivation of professional practical abilities. Based on the production field of the electronic information industry, we systematically organize students to carry out practical training and education in the field of electronic information engineering technology. In a real production environment, we enable students to apply the theories they have learned to professional practice, achieving a "unity of knowledge and action". Thirdly, innovative solutions to practical problems. In professional education, by studying relevant courses and subject knowledge points, students should be able to comprehend and master specific vocational skills through practical training. With the help of real project tasks, establish a professional training base for electronic information engineering technology, providing students with opportunities to solve problems related to electronic information engineering technology. Through professional labor education courses, students accumulate practical training experience, enhance their sense of job responsibility and mission, and enhance their problem-solving abilities.

3. The Value Analysis of Professional Labor Education in Electronic Information Engineering Technology

Professional labor education has achieved an organic connection between electronic information engineering technology and labor courses, improving the accuracy and educational effectiveness of labor education. Professional labor education "enables students to engage in labor projects related to electronic information engineering technicians with authentic and effective labor content, strengthens students' professional skills training, and deepens their understanding and application of professional equipment and specialized operating methods. By understanding electronic information engineering technology, enabling electronic information products to move forward, completing basic training and application of electronic information engineering technology, decomposing relevant professional knowledge modules and tasks, and helping students construct a complete knowledge system of electronic information engineering technology.

3.1. The Goal of Professional Labor Education is to Promote Moral Education and Cultivate Talents

What kind of people should we cultivate? For vocational colleges, it is necessary to regard moral education and talent cultivation as the fundamental task of education. Compared to the goals of vocational education, moral education and talent cultivation should be integrated into various aspects such as students' ideological and political education, cultural knowledge education, and social practice. Curriculum construction is an important bearing condition for education. Different majors should combine their own disciplinary characteristics to construct labor education courses related to their professional content, in order to reflect the country's demand for higher vocational talents. The major of Electronic Information Engineering Technology aims to cultivate skilled and innovative talents who are competent in electronic information application positions. Students need to be able to participate in fields such as electronic information product structure design, trajectory planning, programming design, and comprehensive application, possess corresponding professional ethics and literacy, possess the spirit of a great craftsman and national confidence. Therefore, the implementation of professional labor education courses aims to cultivate moral character and cultivate qualified successors for the country. Having both morality and talent, it is necessary to integrate education and talent cultivation, emphasizing the importance of putting morality first, emphasizing the cultivation of excellent traditions, learning from subject and professional knowledge, extending labor practice tasks, and promoting students' moral and technical integration. It can be seen that cultivating morality and cultivating talents is not only the fundamental task of professional labor education, but also a concrete manifestation of innovative labor education.

3.2. The Purpose of Professional Labor Education is to Implement Collaborative Education

Obviously, the construction of professional labor education was initially based on professional curriculum education, integrating professional practice and practical teaching with labor education, allowing students to utilize professional knowledge, participate in professional practice, enhance students' comprehensive professional literacy, and achieve the synergy and progress of subject education and labor education. Combining with the application of electronic information engineering technology in vocational colleges, we will integrate labor education into the construction of professional courses, strengthen students' practice, experience the significance of labor, establish correct labor concepts, enhance students' professionalism in "doing and loving", and enable them to understand unity, develop a rigorous work attitude, be able to endure hardships and work hard, and gain excellent professional ethics in the field of electronic information engineering technology training. To promote the reform of vocational education, it is necessary to not only strengthen the training of students' professional and technical skills, but also take into account the "adult" education of college students. In the practice of "professional labor education," the organic unity of "talent" and "adult" is necessary to cultivate useful talents for the country and provide specialized talents with "moral and technical education" for society. In the training of the Electronic Information Engineering Action Module, students are required to install and adjust industrial components in the Electronic Information Engineering Department in a standardized manner, and to be serious, meticulous, and

responsible. Through repeated training, cultivate the professional ability to strive for excellence. Professional labor education helps to deeply integrate professional skills with excellent moral education, fully leverage the advantages of the discipline, and enable students to cherish labor achievements, correct professional attitudes, and leverage the unique educational value of professional curriculum practice in cultivating students' labor spirit through professional practical training.

3.3. The Method of Professional Labor Education Lies in Promoting Education Through Explicit and Implicit Interaction

According to McClellan's iceberg theory, the parts above and below the iceberg together constitute a person's overall quality. For icebergs on the water surface, they can be observed and measured, manifested as explicit education; On the contrary, for icebergs under the water surface, it is difficult to observe and measure, which is reflected in implicit education. The implementation of labor education courses in vocational colleges should deeply tap into the advantages of the subject and profession, comprehensively apply the qualities related to labor education, consider the different learning needs of different students, and take into account the curriculum characteristics of different subjects and majors. Labor practice should be integrated into the teaching practice of professional courses in a planned, step-by-step, and hierarchical manner. In this process, labor knowledge and skills have explicit characteristics, which are bound with disciplinary and professional training, so that students not only need to understand the methods of specialized labor, but also need to understand the significance of labor and enhance their faith in love with labor. In their own professional positions, through innovative labor practices, students can experience the principle of "labor is the most glorious, labor is the noblest, labor is the greatest, and labor is the most beautiful". The mutual promotion and integration of explicit education and implicit education helps students establish correct labor values and cultivate excellent labor quality.

4. Suggestions for Promoting the Construction of Professional Labor Education in Electronic Information Engineering Technology in Higher Vocational Colleges

From the construction to implementation of professional labor education, it should be regarded as a systematic project, emphasizing the joint efforts of top-level design, curriculum system, teaching staff, teaching evaluation, and other aspects to promote the steady implementation of professional labor education.

4.1. Refine the Content of Professional Labor Education Courses and Create Characteristics of Labor Education

The construction of professional labor education courses is of utmost importance. The electronic information engineering technology major has strong practicality. By integrating labor education and utilizing practical and practical training, students can establish a correct labor concept and develop good labor habits in the learning of professional courses. The construction of professional labor education curriculum content requires the following two points.

4.1.1. Do a Good Job in Top-Level Design

In the field of Electronic Information Engineering Technology, the knowledge points of this discipline are highly comprehensive. Taking the design and practice of intelligent electronic circuits as an example, it is necessary to combine different electronic circuit design needs, scientifically plan various design processes, and improve the accuracy of the design. By participating in electronic circuit design activities and combining with the actual situation of their positions, students can control the rhythm of various stages of electronic circuit design, achieve a smooth and orderly design process, and improve the level of industrial production automation. In the integration of specific professional courses and labor education, vocational colleges should build a labor resource database and labor case database related to their majors, especially in combination with electronic information engineering technology majors, to refine and enrich different operational tasks. When students adjust unit circuits and replace component parameters, they need to comprehensively investigate the stability issues of common parameters, conduct a comprehensive analysis of the circuit operation process, and possess high observational, logical, and focused abilities. As a result, the implementation of professional labor education curriculum construction requires teachers to excavate, identify, organize, and utilize the labor elements of the entire professional curriculum, and exert the infiltration effect of labor education elements.

4.1.2. Creating Disciplinary Characteristics

The construction of professional labor education courses should be based on specific professional courses and leverage the advantages of labor education in each professional course. The major of Electronic Information Engineering Technology should highlight the characteristics of labor education and attach importance to students' infiltration of labor concepts, labor safety, labor regulations, and labor spirit in professional practice. Based on the discipline, identify the connection between professional courses and labor education. From the teaching of knowledge points to the training of electronic circuit design skills, teachers should seek truth from facts, respect the discipline rules, and enable students to understand the spirit of craftsmanship, model worker, and science through practical training. For example, in the practice of industrial data collection and edge services, by explaining programming and control knowledge, students can understand the data collection and processing in industrial production. It is necessary to complete the collection planning in advance to ensure that the collected data meets production needs. By collecting and planning, guide students to make their own life plans and correct their work attitude.

4.2. Enhancing Teachers' Sense of Responsibility and Building Professional Labor Education Teachers

The implementation of professional labor education courses requires the creation of a high-quality and excellent teaching team. Combining professional course teachers, emphasizing labor education, stimulating teachers' sense of responsibility, and forming a team of music education and good education.

4.2.1. Professional Course Teachers Should have a Sense of Responsibility

Professional course teachers should not only possess

professional knowledge and professional literacy, but also take on the responsibility of labor education. Professional labor education reflects the political requirements of the Party for education and teachers in the new era. Professional course teachers should leverage their professional strengths and systematically promote the implementation of labor education. We should see that some professional course teachers do not attach importance to and care about labor education, and believe that it is the responsibility of ideological and political teachers. Vocational colleges should do a good job in promoting labor education policies, introduce relevant documents and formulate relevant systems, and allow every professional course teacher to also participate in labor education. By utilizing methods such as project approval, evaluation and evaluation, and professional title application, we provide policy guidance for professional course teachers to carry out labor education. Professional course teachers should strive to delve into subject knowledge, strengthen technical skill training, especially organize practical teaching of various electronic information engineering projects, so that students can internalize labor character through repeated training and continuous practice.

4.2.2. Professional Course Teachers Should Innovate Professional Labor Education Teaching Methods

To carry out professional labor education work, teachers should innovate teaching methods and improve the effectiveness of professional labor education. On the one hand, teachers should carry out learning observation, regular training, and learn and master different labor education methods. Teachers should strengthen their learning of Marxist labor concepts, basic labor theories, and labor curriculum methodology, and be able to deepen the innovation of professional labor education and teaching by comparing with electronic information engineering technology majors, enhancing students' shaping of labor spirit, labor attitude, and labor concept. On the other hand, teachers need to change their teaching methods, adapt to the times, and flexibly apply case law, practice law, task law, competition law, etc. to build a comprehensive professional labor education scene. In the training of intelligent factory sensor network application technology, broaden students' design thinking, overcome their fear of difficulties, and develop their spirit of striving for excellence as craftsmen. Utilize knowledge, techniques, and methods of sensor networks to enable students to use programming techniques to debug and verify the effectiveness of data collection; Using control instructions to complete specific tasks; Go deep into industrial application sites, identify and analyze faults in sensor network applications, and enhance work perseverance to overcome difficulties.

4.3. Highlight Multi Subject Evaluation and Improve the Quality of Professional Labor Education

In the construction of the evaluation system for professional labor education, it is necessary to include daily performance, stage evaluation, and labor literacy into the evaluation scope, effectively improving the quality of professional labor education teaching.

4.3.1. Activate Multi-Agent Participation in Evaluation

In the evaluation of professional labor education, subjects such as professional course teachers, students, counselors, and practical mentors should all participate in the evaluation. At the same time, in terms of evaluation dimension, it is necessary to do a good job in collaboration and cooperation among various subjects. Professional course teachers should emphasize professional training and pay attention to the cultivation of students' serious, meticulous, and rigorous style; Counselors should focus on teamwork and collaboration, emphasizing mutual assistance and assistance; Corporate mentors should focus on cultivating professional attitude, professionalism, and hands-on practical abilities. Each subject should have a clear division of labor, form a joint force, and ensure the comprehensiveness and practicality of the evaluation.

4.3.2. Emphasize the Unity of Process Evaluation and Outcome Evaluation

The evaluation system for professional labor education should focus on the electronic information engineering technology major, and evaluate the growth performance and ability development process of students. Develop continuous process evaluation standards, and achieve the learning of specific professional knowledge and professional skills through continuous practical training tasks. According to the actual grade, different professional labor education evaluation contents can be refined to enable each student to achieve personalized development. In addition, considering the diversity of student sources, when evaluating, it is necessary to focus on students' comprehensive labor literacy. The establishment of evaluation standards should go beyond "appraisal" evaluation and point to "appreciation" evaluation to activate students' willingness to work.

5. Conclusion

In the integration of any professional course with labor education, it is necessary to design it in advance, optimize it reasonably, and be close to the professional disciplines, in order to meet the needs of students' growth and success. The essence of professional labor education is to integrate professional curriculum practice with labor education, explore a labor practice education system based on disciplines and majors, and balance the achievement of students' comprehensive professional literacy. Focusing on practical teaching of electronic information engineering technology courses, students are encouraged to correct their labor attitudes, establish correct labor values, enhance their awareness of labor discipline, and gradually acquire good labor habits.

References

[1] Sun Xiaoli, Lin Meiqing. The Value Implication and Practice Path of Labor Education in New Era Universities [J]. Journal of Ningbo Institute of Education, 2022, 24 (1): 90-94,131.

[2] Zhang Moxia, Gao Jialin. Research on the Path of Standardized Construction of Labor Education Curriculum - Taking the School of Information Management of Xuzhou Biotechnology Vocational and Technical College as an Example [J]. Journal of Qiqihar Normal College, 2023 (2): 107-109.

[3] Wang Wei. The Value Meaning and Practice Path of Labor Education in Higher Vocational Colleges in the New Era [J]. Journal of Hebei Software Vocational and Technical College, 2021, 23 (3): 36-39.

[4] Wang Gang, Zhu Jiyuan. The Value Implication of Marxist Labor Concept in the New Era [J]. Journal of Jiamusi Vocational and Technical College, 2023, 39 (2): 1-3.