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A Study on the Practice Path of Digital Transformation of Higher Vocational Labor Education

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Abstract: The integration of digital technology and vocational labor education can further enrich the content and methods of labor education, and enable teachers to meet students' learning needs in a more flexible and dynamic way. This paper analyzes the concept of digital labor education in higher vocational colleges, as well as the challenges in the digital transformation of vocational labor education, and from the use of digital technology, innovation labor education mode. Adhere to the modern concept of labor, and focus on the attributes of education. Technology integration, innovation labor education ecology. Based on the fusion of virtual and real, accelerate the transformation of labor education and the other four aspects of the transformation path of preliminary exploration.

Keywords: Higher vocational education; Labor education; Digital transformation; Practice path

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1. Introduction

The Central Committee of the Communist Party of China and The State Council issued the Digital China Plan in 2023, which emphasizes the innovative application of digital technology in the field of education [1]. In the early years, the emergence of information-based education and smart education laid a solid foundation for the development of digital technology in the field of education. In the new stage of development, the key to the digital transformation of vocational labor education lies in "transformation." The purpose of digital transformation of labor education is to use digital technology to optimize and integrate the existing education system and structure. However, there is a relative lack of relevant research. Therefore, higher vocational colleges must clarify the concept of digital labor education.

2. The concept of digital labor education in higher vocational colleges

Labor education is one of the important constituents of the country's education system. Its implementation

directly determines the complexion of work spirit, work skill level and work value orientation of professional talents in the new era [2]. The purpose of higher vocational labor education is two-fold. On the one hand, it aims to cultivate students' basic labor ability and labor skills, and on the other hand, it aims to exercise their labor consciousness and spirit. Through labor education, higher vocational talents can quickly adapt to the social environment and social development to make better contributions to socialist construction. In the context of the digital era, the combination of higher vocational labor education and digital technology is in line with the general trend of the development of the education system in the country [3]. The integration of digital technology and labor education has further accelerated the pace of labor education curriculum reform.

Digitalization of labor education, simply put, refers to the use of digital technology, digital tools, labor education content, labor education activities, and labor education methods in the form of digital display, and constantly improves the final effect and results of labor education [4]. For example, the creation of the labor education digital learning platform, including labor education textbooks, exercises, labor education cases, course videos and other resources. Students can use the Internet to freely download and observe these resources to enrich their labor theory and experience. Use augmented reality, virtual reality and other technologies to create virtual labor practice scenes, so that students can efficiently complete labor practice activities. Through virtual practice activities, students can not only feel real labor activities, and improve labor practice skills, but also improve their ability to use augmented reality and virtual reality equipment and improve students' equipment application ability.

3. The significance of the digital transformation of vocational labor education

In today's rapidly developing digital era, the digital transformation of vocational labor education has become an inevitable trend. This is not only a major reform in the field of education, but also a key measure to train high-quality labor talents to meet the needs of the era. Digital transformation has brought unprecedented opportunities and challenges to higher vocational labor education, which breaks the time and space restrictions of traditional education, enables educational resources to be shared and integrated more widely, and provides students with a more diversified learning experience [5].

3.1. Improving teaching efficiency and quality

Digital transformation has brought new teaching methods and methods to vocational labor education. Through the digital platform, teachers can more easily access and integrate all kinds of labor education resources, such as rich practice cases, vivid teaching videos and so on [6]. These diversified resources can stimulate students' interest and enthusiasm in participating in labor education so that they can master labor skills in a relaxed and pleasant atmosphere. At the same time, the digital teaching platform can also realize the real-time monitoring and feedback of the teaching process, so that teachers can know the learning situation of students in time, give targeted guidance and adjust teaching strategies to improve the teaching efficiency and quality.

3.2. Expand teaching space and time

Traditional vocational labor education is limited by time and space, and students can only learn and practice in class. However, digital transformation breaks these restrictions and extends the teaching space to the network world. Students can learn and practice through the network anytime and anywhere. Whether in the school laboratory or at home, students can use the digital platform for virtual practical training and practice operations

to improve their labor skills [7]. In addition, the digital platform can also realize remote teaching and online communication, teachers can interact and guide students in real-time, and students can also communicate and cooperate with classmates to complete learning tasks together. Such expanded teaching space and time not only provide students with more learning opportunities and choices but also meet the learning needs and interests of different students.

3.3. Promoting equity and individualized development in education

The combination of digital transformation and vocational labor education has further increased opportunities for equitable education [8]. Through the online platform, students in remote areas can also enjoy high-quality labor education resources, which are no longer limited by geographical restrictions and teachers. At the same time, the digital platform can also provide personalized learning plans and guidance according to students' different characteristics and needs. Teachers can also understand students' learning situations and personality differences through data analysis, formulate personalized learning plans for students, provide targeted learning resources and guidance, and help students give full play to their advantages, make up for their shortcomings, and achieve personalized development. This personalized education method can effectively improve students' labor effect and comprehensive quality and lay a solid foundation for their future development [9].

In short, the digital transformation of vocational labor education can not only improve teaching efficiency and quality, and expand the teaching space and time, but also promote the fair and personalized development of education. Therefore, higher vocational colleges should actively promote the digital transformation of higher vocational labor education, give full play to the advantages of digital technology, and make greater contributions to the training of high-quality labor talents.

4. The effective practice path of digital transformation of vocational labor education

4.1. Innovating labor education mode with the help of digital technology

At present, China's daily data output and digital economy scale have ranked first in the international market [10]. At the same time, the digital economy, as a new direction and new field of world economic development, will inevitably further stimulate the development of digital technologies in the country, and digital labor will also become a brand new form of labor for higher vocational talents in the new period. Digital labor education is a completely new form of labor education with digital technology as the support, data as the object of labor, hands-on operation as the mode of labor, and digital products as the fruits of labor. Compared with traditional physical labor education, digital labor education will involve physical labor, mental labor, emotional labor, technical labor and other labor forms. In addition, some digital career labels have been added to the new edition of the Occupational Classification, such as virtual reality product designer, blockchain application operator, artificial intelligence trainer, and archive digital manager. With the increase of digital labor occupation, higher vocational labor education mode should keep pace with the era, actively move closer to digital labor education, and constantly innovate labor education mode, integrating daily labor and digital technology, in a way closer to digital technology, so that students feel and experience digital labor to promote the rapid development of students' digital thinking and labor education literacy. However, teachers must pay attention to that in the process of digital labor education reform, they should recognize that the essence of digital labor is labor, rather than technology to avoid the problem of "picking up sesame and throwing away watermelon."

4.2. Adhere to the modern concept of labor and focus on the attributes of education

The penetration of digital technology will impact some students' concept of labor to a certain extent, resulting in the wrong idea that "labor spirit equals backwardness" [11]. At the same time, the integration of digital technology and labor education also makes the boundaries of manual labor, mental labor, productive labor and other concepts more blurred, which will eventually affect the understanding and cognition of vocational college students on the nature of labor education. Therefore, before the digital transformation of vocational labor education, teachers need to take the lead in solving the problem of "how to teach and what to teach." First of all, in the process of the transformation of labor education to digital, teachers should adhere to the guidance of Marxism and socialist labor concept, and highlight the educational attribute of labor education, so that college students can find the meaning of their existence in participating in labor, experience the happiness brought by labor, stimulate the intrinsic motivation of students' labor, and cultivate their spirit, consciousness and value concept of loving labor. To this end, teachers need to adhere to the Marxist concept of labor, break the shackles of traditional labor tools, make clear the boundary between labor education and professional skills, take the cultivation of true labor values as the teaching goal, and encourage students to feel the essence of good, beautiful and truth-seeking power in labor.

Secondly, teachers need to make clear the essence of labor education. Under the background of digitalization, the teaching of labor spirit and labor ability has become diversified, but students' labor literacy has not been greatly improved. The main reason is that teachers have not solved the problems such as "what problems can be solved by labor" and "how to use labor," so students' cognition of labor education remains at a shallow level [12]. With the advent of the digital era, teachers should realize that knowledge is no longer the only pursuit of education, but to combine students' quality, they can closely link digitalization, labor education and students together, and guide students to have a comprehensive understanding of the digital society. To be specific, teachers should first adhere to the guidance of socialist and Marxist labor concepts, take cultivating students' creativity as the direction, impart new knowledge, new labor and new professional skills to students, and use new teaching concepts and new methods to continuously hone students' application ability. At the same time, based on actual labor activities, the introduction of digital technology to help students and intelligent labor establish contact, guide students to master the use of digital technology methods, and with the help of digital technology to complete digital labor, to further promote the development of students.

4.3. Technology integration and creation, innovation labor ecology

Higher vocational labor education cannot be separated from the support of new infrastructure in the digital transformation. Therefore, the primary task of higher vocational colleges is to deal with the problem of poor connection between the education chain, innovation chain, talent chain and industrial chain, and improve the adaptability and quality of higher vocational students [13]. Secondly, in the process of transformation, higher vocational colleges should rely on digital technology to complete the integration and creation and innovate the new ecology of labor education, that is, to do a good job in the reasonable integration of labor education and digital technology, and to achieve mutual promotion and common survival of vocational education and labor education. The integrated innovation of digital technology can be divided into two steps.

(1) Higher vocational colleges need to fully consider the update and iteration speed of digital equipment and the correlation with the industry, regularly update the digital labor education infrastructure, actively innovate the new model of labor education, build an intelligent digital labor education system, and promote the reform of higher vocational labor education.

(2) Higher vocational colleges need to do a good job in the connection of the education chain, innovation chain, talent chain and industrial chain. At the same time, labor education courses, labor education data cases and labor education management platforms should be reasonably integrated into the "four chains," to meet the career development needs of higher vocational students and deepen the integration degree between the education chain, innovation chain, talent chain and industrial chain. This can further promote the speed of digital transformation of higher vocational labor education.

4.4. Accelerate the transformation of labor education based on the integration of virtual and real education

In the digital transformation, higher vocational colleges with virtual technology mixed reality technology and augmented reality can quickly complete the construction of a digital labor education environment so that students can obtain new labor experience and harvest in "intelligent" labor activities. However, due to the limitations of digital-related technologies, they can only simulate the simple physical labor environment, unable to present more diversified forms of labor, which greatly weakens the generation of students' labor emotions. Therefore, the education effect is average. Labor education is different from other types of education, it pays more attention to the "physical and mental integration" of participants, participants in the process of participating in labor, not only can exercise physical fitness, and labor skills, but also temper students' consciousness and spirit. Therefore, in the digital transformation of vocational labor education, it is also necessary to follow the essence of labor education, that is, based on physical labor, starting from students' physical feelings, and reasonable application of digital technology, to achieve the balance and inter-communication between body and mind, virtual situation and digital technology [15]. To put it simply, it is based on the integration of virtual and real and adheres to the organic combination of online technology and offline labor. The specific operation is as follows: before carrying out labor education courses, teachers can download online labor resources through digital-related technologies and arrange for students to learn the corresponding content independently. In the course of lectures, teachers can combine labor education examples or labor activities to guide students in the correct way of working and encourage them to cooperate to complete labor tasks. After class, teachers can arrange after-class activities to achieve the unity of online and offline, and realize the sustainable development of digital labor education.

In short, after teaching labor knowledge to students through digital technology, teachers must make full use of existing labor resources in colleges and universities, such as enterprise training bases, digital-related internships, etc., so that students can participate in complete labor activities. Through wisdom and sweat, vocational students' professional skills and willpower can be greatly improved, further enhance students' labor emotions, and encourage students to plan career life as early as possible and move towards a new life.

5. Conclusion

In short, in the process of digital labor education, it is undeniable that digital technology brings convenience and functions, such as digital technology can enrich classroom content, and activity forms, improve students' learning atmosphere and so on. However, higher vocational teachers should fully realize the instrumental role of digital technology, make reasonable use of its advantages and characteristics, optimize the effect and results of labor education, and cultivate high-quality and high-tech labor talents in line with the needs of the era.

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