The innovative model of vocational education teaching under the digital background

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Abstract: Colleges and universities bear the important mission of promoting social development, and the development of its education and teaching is inseparable from the development of social economy. With the continuous development and application of network information technology and artificial intelligence, and the upgrading of educational intelligent hardware, the time to realize "digitalization" in the field of education is also ripe. Based on the background of education digitization, this paper analyzes the vocational education and teaching in colleges and universities, and expounds the positive significance of digitization, the current situation of education and the countermeasures to the difficulties, so as to innovate the teaching mode of vocational education and promote the deepening of the reform of vocational education and teaching in colleges and universities.

Key words: Digitization; Vocational education; Teaching mode

Introduction

Accurately grasping the theme of "high-quality development" and "new development concept" in higher education during the 14th Five-Year Plan period is of great significance for promoting the construction of higher education system as a whole, and is also conducive to coping with the urgent need of society for improving the teaching quality of vocational education in colleges and universities under the background of the new era. Nowadays, with the rapid development of science and technology, driven by digital technology, the modernization prospect of vocational education in colleges and universities has been preliminarily shown, and the teaching of vocational education in colleges and universities should change timely. How to make the best use of digitalization and integrate digital science and technology into practical teaching effectively has become a new challenge in the reform of vocational education and teaching in colleges and universities. The teaching of vocational education in colleges and universities should break the dilemma in the process of digitization, innovate the development model, provide a strong driving force for the education reform, and cultivate excellent high-quality talents for the society.

1. The significance of digitization of college vocational education and teaching

In order to ensure the rapid and sustainable high-quality development of higher vocational education in China, it is necessary to fundamentally solve the development imbalance among various regions and universities in China. It is necessary to break the realistic barriers among colleges and universities, integrate high-quality educational resources, and form a strong educational force. The state can take the policy as the guidance, increase the investment in colleges and universities with weak vocational education, attract outstanding talents to settle down, so as to improve the conditions of running colleges and universities, improve the construction of colleges and universities' teaching staff, and re-inject vitality into the weak colleges and universities. At the same time, with the help of digitalization, we should speed up the construction of the digital road of higher vocational education and teaching, connect the high-quality resources of colleges and universities together with digital technology, and build an efficient and fast digital environment of higher vocational education and teaching. Digital technology is an important technical means to promote the progress of human society, which has changed the objective cognition of human beings in the past and broken the traditional development mode and development route of the education industry. Accelerate digital development, build "digital education" with Chinese characteristics, digitize the resources of universities and other public service units, strengthen their open sharing and use, make them more inclusive, and constantly enhance the people's sense of gain. Vocational education and teaching in colleges and universities need to be forward-looking to a certain extent, and use modern scientific and technological means and advanced educational theories to train talents needed in the future of The Times. College vocational education and teaching should have consciousness and urgency, take the initiative to change in the changing situation, with the advantage of digitalization in vocational education to achieve a corner in the development of college vocational education and teaching to occupy a place in the future.

2. The current situation of digitized vocational education teaching in colleges and universities

1. Students' subjective initiative in learning needs to be improved

There is still a gap between the current situation that information technology has not been fully utilized and the expected goal that information technology can help students optimize their learning mode and improve their learning effect in an all-round way. Information technology is of great benefit to improving students' information literacy, learning interest and knowledge acquisition effect. Information technology can maximize the learning efficiency of students, but also can greatly improve the effect of vocational education teaching. However, there is still a huge room for progress between reality and theory. In the application of information technology, students can still make continuous progress in improving their autonomous learning ability in application, inquiry learning ability, autonomous cooperation ability and self-control ability.

2. The further improvement of teachers' cognition and ability of digital teaching

With the development of science and technology, digital technology has been widely used in education and teaching, and the Action Plan for Improving the Quality and Training of Vocational Education (2020-2023) also puts forward new standards and requirements for the digital teaching ability of vocational education teachers in colleges and universities. With the development of modern science and technology, scientific and technological progress has changed our way of life, way of learning and way of thinking, which objectively accelerates the application of digital technology in college vocational education, the application of digital teaching and office means, and the promotion of digital teaching mode. Due to the changes in the real situation, it is difficult for teachers to match their professional knowledge and skills in a short time. Therefore, it is necessary for the state and colleges and universities to conduct comprehensive and systematic retraining of vocational education practitioners in the field of education digitalization, so as to improve teachers' professional knowledge and ability of digitalization. Teachers themselves should also take the initiative to change, innovate the teaching model of vocational education, and push the reform of vocational education into the deep water zone.

3. The deep integration of digital technology and higher vocational education

Further develop the application of digital teaching in higher vocational education teaching, so that the superiority and advanced nature of modern information technology can be fully displayed. Digitization is by no means a simple application of the materialization of technical means, it should have a broader utilization space. At present, with the continuous application of digitalization, a large number of new technologies and new equipment can be used. However, in the actual application, they are mostly idle or simply used, becoming the carrier to display courseware, expand materials and submit homework for correction. Digitalization has only completed the upgrading of the traditional education and teaching mode, but it has not brought about qualitative changes. Digital technology should be deeply integrated with college vocational education and teaching to promote its qualitative leap and further development of college vocational education and teaching.

3. Countermeasures for vocational education and teaching in colleges and universities under the digital background

1. Strengthen the policy support and overall management of the state

The digital application of vocational education and teaching in colleges and universities is a vast, complex and arduous systematic project, which cannot be realized by relying on a single or part of colleges and universities. The state needs to work out an effective development plan from the overall situation, so that the digital construction of colleges and universities can achieve long-term and lasting development. The digitization of vocational education and teaching in colleges and universities requires huge capital and software support, and long-term continuous investment. It is difficult for colleges and universities to sustain themselves, and special support from the state finance is needed. The state guides enterprises to constantly upgrade their software and hardware through policies to adapt to new changes and challenges. By taking advantage of its dominant position, the state provides good and complete external conditions for vocational education and teaching in colleges and universities. Enterprises should also assume their own social responsibilities, contribute their own technical strength, and provide more stable and efficient software support and hardware configuration for the application of digitalization in college vocational education and teaching. Under the guidance of the state and with the technical support of enterprises, colleges and universities provide outstanding talents needed by the state and enterprises. Under the unified guidance of the state, colleges and enterprises each perform their own duties and build a benign closed-loop system. From the overall perspective of social development, the state has formulated a scientific and systematic strategy for the development of vocational education and teaching in colleges and universities, coordinated all colleges and enterprises, and jointly built a digital network information platform.

2. Improving the capacity of colleges and universities for independent development

As important places for vocational education and teaching, colleges and universities bear the responsibility of training professionals with professional skills for the country. Colleges and universities take the needs of the country as the guideline, combined with the actual social situation and students' career planning, to formulate a scientific talent training plan. Colleges and universities borrow their own advantages, use digital means to build a standard digital model, trying to get the most true and accurate measured data, to guide the construction of digital engineering in colleges and universities. In teaching practice, do a good job as the organizer and guarantor of digital teaching, and provide sufficient facilities and software support for teachers' digital teaching. At the same time, digital means such as "micro-courseware" and multimedia are used to provide students with a platform for self-learning and respect students' individual differences. Deepen the teaching mode combining online and offline, pay attention to teaching students according to their aptitude, and improve teaching efficiency and quality. Universities have introduced the Internet of Things in daily life, built convenient and fast intelligent service systems in classrooms, dormitories, libraries and other places, and provided students with multi-functional community services, so that students can experience the convenience brought by digitalization. Colleges and universities have built a comprehensive and systematic digital network to meet the needs of teachers and students in daily study and life, and use the data they have mastered to carry out precision science teaching guidance. The digital transformation of colleges and universities can not only improve the quality of vocational education and teaching, but also enable students to get a more comprehensive development and train more high-quality technical talents for the country and society.

3. Improve the digital awareness and application ability of college teachers and students

In 2022, the Ministry of Education formulated the "Digital Literacy for Teachers" standard in order to promote the national strategic action on digital education, which describes the digital literacy that future teachers should possess from five dimensions: digital awareness,

digital technology knowledge and skills, digital application, digital social responsibility and professional development, and provides new standard requirements for college teachers to conduct digital teaching. College teachers should re-understand the new teaching requirements and role positioning in order to adapt to the new changes. College teachers should re-examine digitalization and apply it to their own teaching practice, make full use of the network to reorganize teaching materials, integrate dispersed knowledge, and make knowledge more intuitive. Teachers should take the initiative to improve the utilization efficiency of digital platforms and guide students to use digital platforms efficiently. The application of digital platform enables teachers to better grasp students' learning situation and examination situation, and formulate more targeted individual education plans according to this. Teachers should also strengthen information sharing and experience sharing within the teaching staff, and learn from each other's strengths. Students should also be aware of the importance and advanced nature of digital teaching and take the initiative to use it in their own study and life. Students should take the initiative to accept the application of digital in vocational education and teaching, and actively use modern scientific and technological means to enrich themselves and promote the comprehensive and coordinated development of individuals.

4. Promote the co-construction and sharing of information resources and promote educational equity

Limited by economic, geographical, historical and other conditions, the development of higher vocational education in China is not balanced, and the differences between regions and schools are obvious, which makes it difficult to effectively reflect educational justice. The digitization of higher vocational education teaching can minimize the differences in education under the existing conditions, improve the people's satisfaction with education, and enable more students to receive the latest and best quality teaching resources. The state should strengthen the financial input to colleges and universities in weak areas, help them build digital vocational education and teaching platforms, and use digital technology to strengthen the co-construction and sharing of educational resources, so as to narrow the gap among colleges and universities and promote the fairness of education. The sharing of education and teaching resources can not only enrich the types and modes of teaching, but also make up for the shortage of teachers and hardware facilities in colleges and universities, so as to benefit more educational groups. Digital education has changed the previous teaching mode of vocational education, broken the constraints of time and space, made education ubiquitous at all times, and at the same time gave the educatees a richer choice space, promoting the progress of education fairness.

Concluding Remarks

Under the background of rapid digital development, China's higher vocational education teaching has made great progress, but there are still some problems, such as weak subjective initiative of students' learning, insufficient cognition and ability of teachers' digital teaching, and insufficient integration of digital technology and higher vocational education teaching. To promote the digital construction of vocational education teaching in colleges and universities needs to strengthen the policy support and overall management of the country; Improve the independent construction ability of colleges and universities; Improve the ability of teachers and students to understand and use numbers; Strengthen the co-construction and sharing of information resources, promote educational equity and other aspects, and innovate the teaching model of vocational education in colleges and universities.

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