

# Current Situation and Countermeasures of Higher Vocational Education in the Information Age

Junwei Duan

Anyang Preschool Education College, Anyang, Henan, China

## **Abstract:**

Informatization has a profound impact on education. Comprehensively promoting teaching modernization with informatization is not only a new topic of the times, but also the only way for the modernization of vocational education. This paper studies the current situation of Higher Vocational Education in the information age. This paper analyzes the development process, path, typical practices and innovative experience of Vocational Teachers' modernization. At the same time, this paper focuses on the development and effectiveness of the e-learning space renrentong with Chinese characteristics and the vocational teaching informatization competition, and puts forward some strategies for optimal development on this basis. Realizing the modernization of teachers is the premise of teaching modernization. Therefore, the discussion on promoting the modernization of vocational teachers with informatization is also the core of this paper.

**Keywords:** *Informatization, Higher Vocational Education, Network Learning Space, Teaching Reform.*

---

## I. INTRODUCTION

With the continuous promotion and in-depth development of informatization with the use of information technology as the core, great changes have taken place in human society, realizing the leap from industrial society, information society and intelligent society [1-2]. The rapid development of information technology also promotes the continuous progress of education, especially accelerates the reform of education, including vocational education. As a base for training high-quality skilled and practical talents, vocational colleges have innovated the concept of talent training in vocational education, changed the teaching methods of vocational education and improved the comprehensive quality of vocational education teachers. The enrichment of vocational education resources and the improvement of quality level, the

optimization of vocational education organization form and management mode, the general improvement of vocational education teaching practice, and the balanced development of vocational education have all had a great impact [3-5].

Emerging technologies are constantly emerging, which not only accelerates the development of vocational education, but also promotes the upgrading of its modernization level. China's 13th five year plan puts more emphasis on the "Deepening Application and integrated innovation" of information technology [6]. The essence of integrated innovation is to give better play to the revolutionary role of information technology in education and construct modern education [7]. The foothold of modern vocational education is the modernization of vocational teaching, that is, to improve the practical effect of vocational teaching modernization and the innovative development of vocational students.

## **II. EXPLORATION AND RESEARCH ON INFORMATIZATION PROMOTING THE MODERNIZATION OF VOCATIONAL TEACHERS**

The general goal of China's socialist modernization, the general trend of economic and social development, and the specialty particularity of the combination of professionalism and technology of vocational education [8]. Combined with the internal driving force of vocational education teachers' own development, the process of human modernization of vocational education is to promote the modernization of vocational education teachers' target needs, social relations, values, mode of thinking, mode of behavior, professional quality and vocational skills, as well as the modern development process of comprehensive quality.

With the development of material life and natural science, as well as the changes of people's cognitive means and tools, it reflects certain characteristics of the times, and the individual's way of thinking reflects the different characteristics of individual cognition. Informatization has had a profound impact on people's way of thinking, and there is the theory of Internet thinking. Informatization also has an impact on the thinking mode of vocational teachers, which is mainly reflected in the following aspects.

(1) Open thinking. Historical lessons warn us that "closing the door to the country" or "making cars behind closed doors" can only lead to lagging behind the development needs of the times. The interconnected world based on the goal of modernization needs our vocational education teachers to deal with it with a more open vision and more open way of thinking.

(2) Diversification of thinking. The traditional way of thinking is no longer suitable for the current rapid development of social rhythm. Vocational teachers need to constantly enrich their own thinking structure to follow the development of the times. Modern network technology provides conditions for vocational teachers to continuously broaden their horizons and optimize their thinking structure, and helps vocational teachers to think and solve practical problems in a diversified way of thinking.

(3) Creative thinking. Innovative thinking is a thinking mode that vocational education teachers must have in the information age. Only by constantly breaking the shackles of old things and creating new things, can they win a place in the current fierce social competition.

(4) Visualization of thinking. With the continuous upgrading of modern information technology, visualization technology has developed to a great extent. It pays more attention to the real-time and effective interaction with learners to promote the communication of learners' real emotions.

(5) The perfection of thinking. Extreme thinking is an important thinking that modern vocational education teachers should have. Cultivating people's "craftsman spirit" is an important task of education and teaching in Vocational Colleges in China. Realizing the refinement and accuracy of vocational skills will be the unremitting pursuit of modern vocational education teachers. Informatization accelerates the process of cultivating the ultimate thinking of vocational education teachers in China, and provides important conditions for the modernization of vocational education teachers.

The teaching modernization of vocational education needs people to implement and practice. Alex Ingles explained in detail the twelve characteristics and qualities that modern people should have. Human modernization must cover all human dimensions, which is a great reference for the current study of human modernization. Combined with Ingels's definition of human modernization, China's social orientation of vocational education modernization at the national level, the national policy guidance for the development of vocational education and teaching modernization, the internal driving force of vocational education and teaching development, and the self demands of vocational education teachers' development. Six strategies for continuously promoting the modernization of vocational education teachers in China are summarized, as shown in Figure 1.

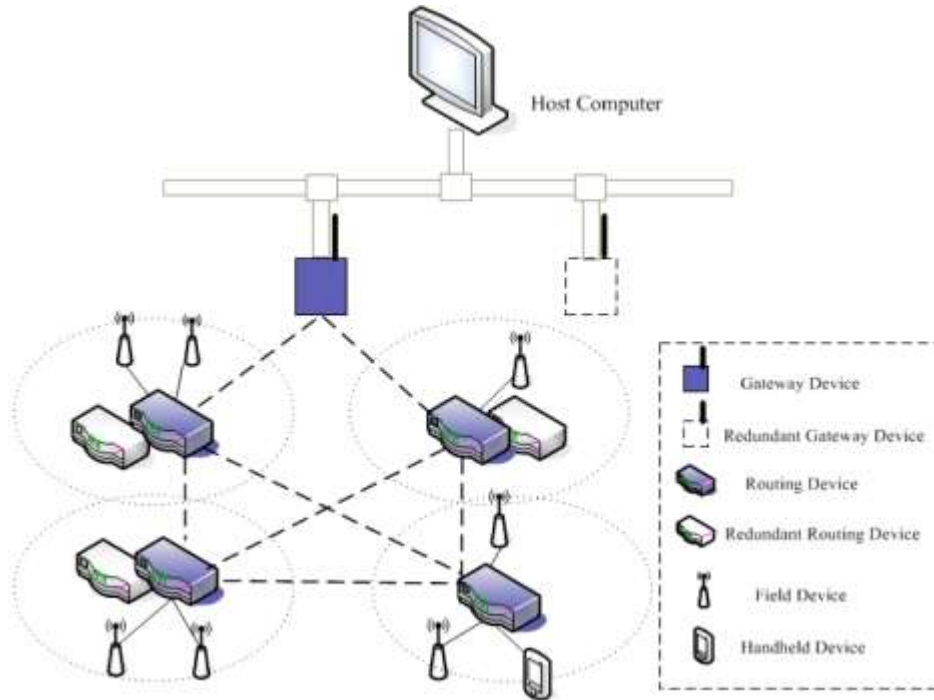


Fig 1: The modernization promotion strategy of Vocational Teachers

### III. EXPLORATION AND RESEARCH ON INFORMATIZATION PROMOTING THE MODERNIZATION OF VOCATIONAL EDUCATION TEACHING MANAGEMENT

By comprehensively analyzing the practical needs of vocational education and teaching modernization in China, this paper summarizes the development direction of vocational education and teaching management modernization, as shown in Figure 2.

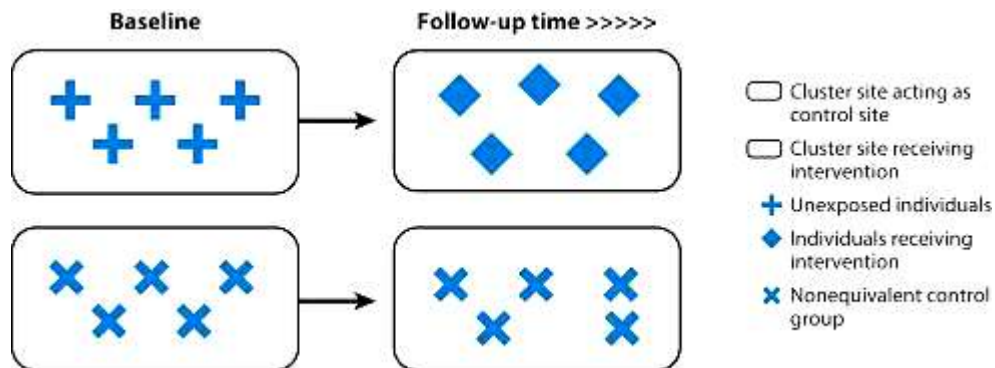


Fig 2: Modernization of teaching management in Vocational Education

"The beginning of husband overlord is also people-oriented", which first emphasized the importance of people-oriented. On this basis, future generations have deeply interpreted the thought and constantly endowed it with new era connotation. As the core of China's socialist scientific outlook on development, "people-oriented" is the premise and direction of all other development. Man is the origin of all development and the foundation of all development. All development is for man and all development depends on man. The unity of the two constitutes the complete content of "people-oriented".

Modern vocational education teaching management is trying to realize the transformation from management to governance. Modern vocational education teaching management is by no means an authoritarian management of "independent management and governance", but an open and multilateral management system based on modern information management concept and technology platform. "Opening" means to realize the openness and transparency of the teaching management process of vocational education and accept the supervision and inspection of the public; "Multilateral" refers to in-service teaching management. The main body of management includes principals of vocational colleges, teaching managers, teachers, students, parents and so on.

The arrival of the era of "Internet plus" promoted by informatization has brought new demands to vocational teachers, and has also given new enlightenment to the modernization of vocational education teaching management in China. Modern vocational education teaching managers need to have multi-directional management thinking to adapt to and do a good job in modern vocational education teaching management. The biggest feature of the new management thinking is the integration of multiple thinking.

The report of the 19th national congress pointed out that socialism with Chinese characteristics has entered a new era, which will also give new era connotation to Chinese characteristics. For vocational education, continuing to improve the "vocational education system with Chinese characteristics" has become its most arduous task at present. Under the background of the development of socialism with Chinese characteristics, promoting the teaching development of vocational education with Chinese characteristics with informatization is the internal driving force and urgent need to realize the modernization of vocational education. The construction of modern vocational education system is the direction of vocational education reform and development.

Culture is the soul of a nation and has always been concerned by leaders of all sessions. National culture reflects the way of thinking, value orientation, ideal personality, ethical concept and national character of a nation and its members. Among them, the influence scope of national spirit is the most extensive and the effect is the most significant. Chinese excellent

traditional culture is the "soul" and "root" of the Chinese nation. General secretary Xi Jinping pointed out: excellent traditional culture is the foundation of the inheritance and development of a country or a nation. If it is lost, it will cut off the spiritual lifeline. As far as vocational education is concerned, it is closely related to national culture, social culture and campus culture. Among them, national culture is the general program. Social culture and campus culture directly affect the modern development of vocational education teaching management and run through the whole process of vocational education teaching management. The continuous innovation of the modernization of vocational education teaching management must integrate multiple cultures as the basis for its development and fully reflect the characteristics of the modernization of vocational education teaching management in China, as shown in Figure 3.

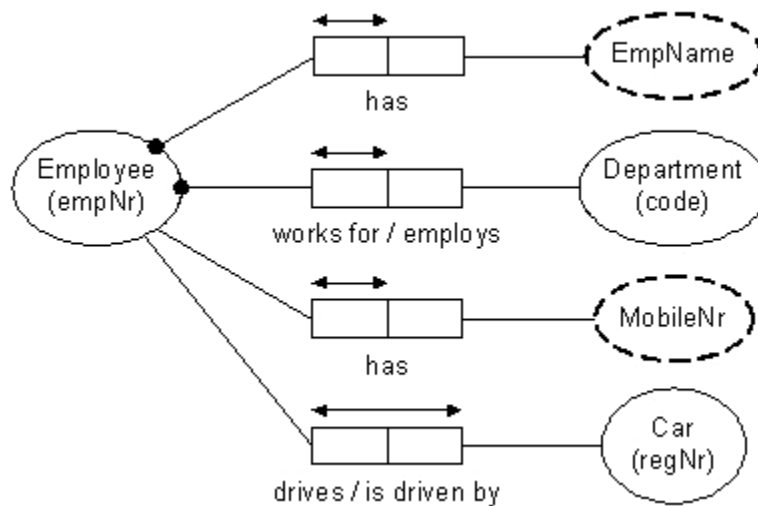


Fig 3: Cultural background of teaching management

#### IV. EXPLORATION AND RESEARCH ON INFORMATIZATION PROMOTING THE MODERNIZATION OF VOCATIONAL EDUCATION TEACHING EVALUATION

The promoting effect of informatization on vocational education teaching evaluation is mainly reflected in the reform of teaching evaluation process and teaching evaluation results. With the continuous increase of learners' initiative, the effectiveness of peer cooperation, parents' attention to students' learning status, society and the state's attention to the teaching effect of vocational education. The category of human based evaluation subject continues to expand, which promotes the more comprehensive supervision of the process and results of vocational education teaching, promotes vocational education teachers to continuously optimize their own teaching design, teaching organization, teaching implementation, teaching evaluation

and reflection, and helps vocational education students constantly adjust their learning methods, learning rhythm, learning process, learning evaluation and reflection.

On the one hand, the impact of informatization on the modernization of vocational education teaching evaluation is reflected in the innovation of evaluation ideas, but more is the innovation of evaluation technical means, which is specifically reflected in: improving the intelligence of evaluation subjects, improving the intelligence of evaluation tools, improving the comprehensiveness of evaluation content, improving the measurability of evaluation process, improving the personality of evaluation results, etc. The main body of vocational education teaching evaluation includes all people who have direct or indirect interests related to vocational education. The main body of vocational education teaching evaluation with Chinese characteristics includes Chinese vocational education teachers with Chinese excellent traditional culture and wisdom and all people at home and abroad who care about the modernization of vocational education with Chinese characteristics.

Teaching evaluation serves to optimize the teaching process and improve the teaching effect. With the emergence of big data technology and continuous high intelligence, all data can be recorded, stored, analyzed, applied and evaluated. At present, in the continuous promotion of the construction of digital campus in Vocational Colleges in China, the modern intelligent tools represented by tablet computers can collect the data of the whole process of students' learning, and provide a data basis for educational evaluation and decision-making based on data analysis and rational evidence in the field of education. The "invisible" or "invisible" data information in the process of vocational education teaching will be continuously mined and visualized. With the continuous optimization and upgrading of big data technology represented by data mining and learning analysis, it has been possible to analyze all kinds of data generated in the teaching process in real time. Through modern visualization tools, it is presented in the form of clear, intuitive and visual diagrams or tables, so as to realize the whole process monitoring and measurement of vocational education teaching process, timely adjust teaching design, and provide various teaching services.

The artistry mentioned in the traditional vocational education teaching evaluation mostly refers to the artistry of the evaluation language. Under the promotion of informatization, the artistry of the form of teaching evaluation has been gradually improved. The most significant innovation is the application of modern visualization technology in the analysis of in-service teaching evaluation results. At present, due to the high speed of information development and the difficulty of updating hardware equipment, the development of intelligent infrastructure has shifted from hardware to software. The update of equipment is more convenient, the operation is more simple and practical, and the artistic presentation effect is more remarkable. At the same time, it can also stimulate the development of multiple intelligences of vocational education students and promote learners to realize the growth of multiple intelligences.

## V. CONCLUSION

This study mainly focuses on the process of China's exploration and relevant achievements of vocational education and teaching modernization promoted by informatization, and analyzes the promoting role of informatization on vocational education teachers, vocational education teaching resources, vocational education teaching management and vocational education teaching evaluation. In view of the lack of innovation of teaching resources in modern vocational education, this paper puts forward the strategy of optimizing the high-quality resource sharing mode; Deeply analyze the practical problems of the modernization of vocational education teaching management, and put forward rational countermeasures; This paper summarizes the evolution process of vocational education teaching evaluation model, indicators and forms, and puts forward continuous optimization strategies.

## REFERENCES

- [1] Wang Min, Shu Jiangbo. Research on Spoc Teaching Evaluation Model Based on Education Big Data. *China Education Informatization*, 2020, 3: P.74-79
- [2] Tang Feifei. Research on the Construction of Intelligent Online Learning Behavior Analysis Model of Teachers and Students in Higher Vocational Colleges Based on Big Data. *China National Expo*, 2018, 20: 60-61
- [3] Lu Yan, Yang Ruoling. Research on the Factors Influencing the Online Learning Effect of Higher Vocational Students Based on Big Data. *Science and Technology Information*, 2020, 018 (003): 96-97
- [4] Zhang Yanhong, Wang Fengqin, Han Qiufeng. Research on Evaluation Model of Students' Ideological and Political and Daily Performance Based on Big Data. *Modern Computer: Early and Late*, 2015, 22: 89-93
- [5] Shi Jinmei, Xia Wei. Design and Implementation of Student's Optimal Course Scheme Model Based on Big Data Analysis. *Modern Electronic Technology*, 2017 (14): 38-40
- [6] Ji Xiuxia, Li Lichao. Research on Teaching Quality Evaluation System of Higher Vocational Colleges Based on Big Data. *Vocational Education Communication*, 2020 (1): 17-21.
- [7] Huang Hui, Liu Zhengtao, Zhu Pengyu. Learning Evaluation Based on Big Data Analysis. *Vocational Education Research*, 2017, 8: 34-38
- [8] Deng Kai, Zhao Zhenyong, Liu Haobo. Research on Neural Network Model of Professional Evaluation in Higher Vocational Colleges Based on Big Data Analysis. *Journal of Changchun Institute of Education*, 2015, 19: 122-124