

Analysis on the of Higher Vocational Teachers in Professional Development Path under the Background of Education Informatization

Guangxiu Wang^{1*} and Naigui Shang²

¹ School of Marxism, Shandong University of Political Science and Law, Jinan, Shandong 250022, China

² Department of Film and Television Production, Shandong Media Vocational College, Jinan, Shandong 250022, China

*corresponding author: wanggx@sdupsl.edu.cn

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Abstract: Higher vocational education is given the duty to conduct the important task of cultivating high-quality and skilled talents with all-round development of morality, intelligence, physique, aesthetics and labor for national construction. As the initiator and organizer of higher vocational education, the professional development of higher vocational teachers will directly restrict and influence the future development of higher vocational education. At present, the rapid development of education based information technology has provided assistance for the professional development of higher vocational teachers. How to give full play of the advantages of current educational informatization to carry out professional development has become an important topic in the current higher vocational education circle. This paper analyzes the status quo and key contents of professional development of higher vocational teachers under the background of education informatization, and probes into the path of professional development of higher vocational teachers under the background of education informatization.

In January 2019, The State Council issued the Implementation Plan for Reform of National Vocational Education (hereinafter referred to as the "Twenty Measures for Vocational Education"), proposing "to take multiple measures to build a contingent of teachers qualified in both theoretical teaching and practical teaching" and to achieve the task of "implementation of the plan to improve the quality of teachers in vocational colleges", and "exploring the formation of high-level and structured teacher teaching innovation teams"[1]. In recent years, the rapid development of new technologies represented by the Internet, big data and artificial intelligence, and the emergence of a large number of intelligent devices, intelligent systems and intelligent technologies have greatly driven the great revolution in the field of education informatization. This has brought unprecedented convenience and opportunity to the current vocational education, but also to the higher vocational teachers' education and teaching activities and professional development of their own impact and challenge. In June 2018, the Ministry of Education issued the Education Informatization 2.0 Action Plan, pointing out that "by 2022, the development goal of "teaching applications cover all teachers, learning based applications cover all school-age students, and the construction of digital campuses covers all schools. The application of information technology and the information literacy of teachers and students have all been improved, the Internet plus education platform has been built, and the shift from resources dedicated to education has been promoted" will be basically realized.[2] Therefore, under the background of education informatization, how to promote the professional development of teachers, especially higher vocational teachers by means of information technology is worth thinking over in a in-depth manner.

1. Current Situation of Professional Development of Higher Vocational Teachers under the Background of Education Informatization

Educational informatization has been given top priorities by the academia. However, in view of the present situation of higher vocational education, the theoretical research and practical activities of information technology-guided learning mode transformation have not yet formed a climate. The professional development of higher vocational teachers is achieved based on the traditional way, the role of information technology has not been fully played. The efficiency of its deep integration with the occupation, education, work and study of higher vocational teachers has not been fully manifested. In general, the professional development of higher vocational teachers at present has the following characteristics:

First of all, there are obvious differences between the teaching activities of higher vocational teachers and other stages of education. The teaching activities of higher vocational teachers are not the same as "propagate the doctrine, impart professional knowledge, and resolve doubts" in the traditional sense. Instead, it is mainly reflected in that teachers should not only teach students traditional theoretical courses and general knowledge, but also focus on building students' professional practical ability, which poses requirements for higher vocational teachers to not only master the general law of education and teaching, but also to be familiar with and master the skill needs of the industry and enterprises. To be a "double-qualified" teacher who can teach both theoretically and professionally. However, the current teachers for vocational education are generally those who just graduated from normal universities or vocational normal colleges and go for work directly for colleges and vocational schools. Consequently, the teachers lack necessary experience of working in enterprise. As a result, they have a good grasp of theoretical knowledge and laws of education and teaching, but lack of understanding of employment needs and post standards of the industry and enterprises, and weak practical ability. Students trained in this way can hardly adapt to the demand of future jobs, resulting in "education training" and "industrial demand" divorced. In addition, since 2019, vocational colleges have expanded their enrollment from high school students to secondary vocational school graduates, former high school graduates, retired soldiers, retired athletes, laid-off workers, migrant workers and other special groups. The diversity of higher vocational students and the differentiation of students' basic quality also pose new challenges to the teachers' "differentiated teaching" and "stratified training", and put forward new requirements to the education of higher vocational schools.

Secondly, some higher vocational teachers proves to be weak in the subjective initiative of professional development. The main body of the professional development of higher vocational teachers must be teachers themselves. However, the inertia teaching mode and habitual thinking pattern for a long time result in the weak subjective initiative of some higher vocational teachers in their professional development. However, with the growth of teaching experience, they will gradually adapt to the "comfort zone" and are not willing to go out. They tend to complete the basic teaching tasks in the simplest and labor-saving way and lack motivation to improve their own quality. The improvement of students' quality, ability and skills can only meet the basic requirements in the talent training program. The motivation and purpose of the occasional professional training is usually limited to completing the tasks assigned by the school or the education department, or to achieve the basic external instrumentalization purpose such as the evaluation and hiring requirements of personal professional titles. Only a very few people associate the professional development of teachers with the improvement of their own endogenous value. As a result, many professional development approaches of higher vocational teachers eventually become formalism with empty expressions, which is difficult to fundamentally help the professional development of higher vocational teachers.

Furthermore, there are differences in the information quality of higher vocational teachers.

"Outlook of Vocational Education technology in China 2018: Report of Horizon Project" made it clear of the vocational education technology in the field of 12 important technology[3].The content of "virtual reality, artificial intelligence" is closely related to the information literacy of teachers, and emphasizes that educational technology can promote the birth of more effective teaching and learning programs. Education informatization is the trend of current and future education. Higher vocational teachers are the organizers of educational activities, the providers of teaching materials,

and the guidance and guidance of students' learning. The level of their information literacy will directly affect the effect of education. Generally speaking, the improvement of teachers' informatization teaching ability can be divided into four stages: development stage, application stage, integration stage and innovation stage[4]. At present, many teachers in higher vocational schools have poor information literacy, which is basically in the primary stage of formation and application. Their information teaching ability is mainly limited to "network handling", and they will use PPT and micro-class multimedia means to teach, but they often just apply the superficial methods such as ready-made templates and handling other people's materials. It is difficult to integrate the means and methods of information technology with the reform of education and teaching process and teaching mode, so as to fundamentally change the form of teaching organization or learning mode, and it is impossible to carry out teaching innovation design according to the particularity of vocational education.

2. The key Content of Teacher Professional Development in Higher Vocational Colleges

(1) Key content of higher vocational teachers in professional development Pan Maoyuan believes that the professional development of university teachers in a general sense mainly includes three aspects: Academic level, teachers' professional knowledge and skills, and teachers' ethics and morality [5-9]. In light of the uniqueness of higher vocational education, the professional development of higher vocational teachers focuses on the following contents.

(2) Construction of teachers' ethics and morality. Higher vocational teachers shoulder the important task of cultivating qualified builders for national construction, which is a sacred and great historical mission. Especially in the important historical period of industrial structure adjustment of national construction department, the educational effect of higher vocational education is closely related to the great cause of national development and rejuvenation. As the guide and beacon for students to grow into talented adults, teachers in higher vocational colleges should have a clear understanding of their positions and careers, and they should take strengthening moral education and cultivating people as their start for their own personal development, and associate the growth of students with their own career planning. Teachers should love and devote themselves to their jobs, be willing to contribute, persevere, take responsibility and pay, devote themselves to the work of higher vocational education with full enthusiasm and strong sense of responsibility, love and devote themselves to their jobs, and be good teachers of modern vocational education with moral integrity.

(3) Construction of professional knowledge construction. "It is better to teach people to fish than to teach people to fish". One of the tasks of higher vocational teachers is to teach students the professional knowledge closely related to the industry and enterprises, which is their natural qualities and basic requirements as a qualified higher vocational teacher. On the one hand, the professional knowledge of higher vocational teachers comes from their own knowledge accumulation in the process of learning and growing up, on the other hand, it also comes from continuous learning and improvement after work. Teachers in higher vocational colleges should establish the concept of lifelong learning, timely contact with the industry and enterprises, understand the production process, technical indicators, operation norms and so on applied in the industrial development, and teach the professional knowledge to students in a scientific and reasonable way, so as to help them grow up quickly and quickly match the employment needs of the industry.

(4) Construction of professional skills. The professional development of higher vocational teachers cannot be separated from the development of educational professional skills and the improvement of production skills in related industries. Mastering the teaching method is the basic requirement of higher vocational teachers as teachers. The attitude towards learning, the method of acquiring knowledge and how to flexibly teach knowledge are all important contents that a qualified higher vocational teacher needs to continuously improve. One's own knowledge is the foundation, and the key is to impart knowledge to students in a scientific and reasonable way and let them learn and understand. In addition, vocational attributes of higher vocational schools also require higher

vocational teachers to have necessary professional production skills. They can be familiar with the production process of enterprises and competent for the production tasks of the industry through on-the-job internship and school-enterprise cooperation and construction. Only in this way can students be taught to adapt to the needs of the position as soon as possible.

3. The Path of Professional Development of Higher Vocational Teachers under the Background of Education Informatization

As an important participant and organizer of education and teaching activities, the professional development level of higher vocational teachers will directly affect the quality and quality of talent training. Under the background of education informationization, the professional development path of higher vocational teachers is limited by many factors, and the overall analysis is nothing but the level of teachers, the level of school departments and the level of government policies. The personal level of teachers mainly includes educational background, recognition of teacher profession, consciousness of development, reflection in teaching process and training, etc. At the level of school departments, teaching evaluation and professional title evaluation are mainly included. At the level of government policy, it is mainly policy and regulation guarantee and fund investment support. Based on the analysis of the above limiting factors, the professional development of higher vocational teachers under the background of education informatization can be carried out in the following ways.

(1) Taking policy incentives as the guide, vigorously implementing the policy of "benefiting education" into effect. In recent years, the state has attached particular importance to vocational education, not only emphasizing the importance of vocational education in various comprehensive documents, but also issuing incentive policies for the development of vocational education successively. The promulgation of a large number of policies, such as "Opinions on Strengthening the Construction of Teachers in Higher Vocational Colleges", "Opinions on Implementing the Plan for Improving the Quality of Teachers in Vocational Colleges (2017-2020)", and 20 articles on vocational education, all play an obvious "preferential" role in promoting the professional development of higher vocational teachers. However, it is undeniable that part of the current "favorable education" policy only exists in the written level, and the phenomenon of "soil and water are not afraid of" is obvious in the actual implementation process. Therefore, the next step should be to make more efforts in policy implementation, with the education department as the lead, involving enterprises, finance, personnel and other fields and departments of integration, linkage and cooperation, to avoid disputes due to interest issues. The education department of the government should change its style from "management" to "service". At the same time, big data evaluation mechanism or social third-party evaluation institutions are introduced to evaluate the implementation effect and process of these incentive policies, which can not only ensure the actual implementation of existing policies, but also provide scientific and accurate reference for the introduction of follow-up policies.

(2) Improving the professional identity of higher vocational teachers and stimulating the internal driving force of their professional development. In the final analysis, the intrinsic drive of teachers plays a decisive role in the professional development of higher vocational teachers. In particular, professional identity and development consciousness, the former indicates the recognition and acceptance degree of vocational teachers to their own profession, the higher the sense of identity, the stronger the psychological tendency of teachers to focus on professional role, the more obvious the subject consciousness, the two have a significant positive correlation. The latter reflects the active cognition of vocational teachers on the current status of their professional development and the positive planning of their future vision, and is an important representation of the formation of subject consciousness [6]. Only when higher vocational teachers have a higher professional identity to their own profession, can they voluntarily combine their professional development with the national education cause and the great project of teaching and educating people, and give play to their own subjective initiative.

(3) Improving the professional skills of vocational teachers through school-enterprise

cooperation and integration of industry and education. In view of the current particularity of higher vocational education and the talent needs of the corresponding industries and enterprises of each major, the existing professional skills of higher vocational teachers are scientifically analyzed and evaluated with the help of big data and other tools, and the professional skills of teachers. Especially, practical teaching and production skills are made in a targeted manner to make learning plans. By means of school-enterprise cooperation, integration of industry and education, modern apprenticeship and other offline forms, or with the help of VR technology, digital teaching resource platform, online lectures of famous teachers and other online learning forms can effectively improve the ability of vocational teachers to guide students in practical teaching. In addition, students can also understand the latest trends and technical parameters of the industry and enterprises by guiding them to participate in industry competitions and practice in enterprises, so as to effectively improve the teaching effect of practical training.

As an integral part of China's education system, higher vocational schools undertake the important task of cultivating and exporting more high-quality and skilled talents for national construction. In the current development of education informatization, the professional development of higher vocational teachers is inseparable from the participation of individual teachers, schools and the whole society. With the help of modern information technology and means, it is necessary to create a "contingent of teachers qualified in both theoretical teaching and practical teaching" in higher vocational education and realize the professional development of teachers. In the future, we still need to keep trying and exploring.

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