

Guided by Standardization, Systematically Promote the High-Quality Development of Vocational Education

Author: Zhang Jinlin

Qingdao Qiushi Vocational & Technical College 266108

Abstract: Based on the implementation of the 2021-2025 plan of the Ministry of Education and the Ministry of Finance on improving the quality of teachers in vocational colleges and the implementation of the national training project for teachers in vocational colleges in Qingdao in 2023, this paper expounds the methods and strategies to systematically promote the high-quality development of vocational education under the guidance of standardization from six aspects: taking innovative team building as the carrier to lead the professional development of teachers in vocational colleges, taking standards as the guide to promote the construction of high-quality "double-qualified" teachers, new requirements and new measures for the construction of double-qualified teachers, teaching design and implementation based on action-oriented teaching strategy, thinking and practice of integration of production and education in vocational colleges, school-enterprise cooperation, and leading way of Dalian Neusoft Institute of Information.

Key words: "double-qualified" "innovative team" behavior-oriented result-oriented

The Notice of the Ministry of Education and the Ministry of Finance on Implementing the Plan for Improving Teachers' Quality in Vocational Colleges (2021-2025) is an important document in the field of vocational education jointly issued by the Ministry of Education and the Ministry of Finance. According to the spirit of the document, Qingdao Vocational College Teachers' National Training Project Management Office arranged and Dalian Neusoft Institute of Information organized this training. The training of Qingdao Vocational College Teachers' National Training Project in 2023 aims to improve the cutting-edge theory and technical level of participating teachers.

Experts participating in the training include Mao Jun, Vice President of Dalian Light Industry School, who participated in the pilot test of Germany's "dual system" electrical specialty, presided over the project and won the national award and the first prize of provincial vocational education achievements; There is Gao Hongmei, a researcher at Liaoning Institute of Education, secretary-general of Liaoning Vocational and Technical Education Association, and an expert in teaching diagnosis and reform review of national secondary vocational schools; Professor Jia Yue, the online education curriculum design director of Soft Education Technology Group, who won the provincial famous teaching teacher, the first prize of provincial teaching achievement, the first prize of micro-class competition, the first prize of provincial young teacher teaching competition, and won the prize in the national micro-class competition and the national young teacher teaching competition; Director Li Xinfa, an old expert from the Project Management Office of the Teacher Quality Improvement Plan of Vocational Colleges of the Ministry of Education,

who is good at using experiential learning, group learning, cooperative learning, inquiry learning and other forms of teacher training; There is also Lei Jun, the operation director of Dalian Weike Innovation Technology Co., Ltd., who has been committed to creating a double-qualified teacher training base since 2018; Teacher of Continuing Education Division of Neusoft Education Technology Group, American AACTP certified enterprise training expert. Starting from their own work and experience, experts interpret policies, demonstrate cases and analyze methods for us, guide us to find pain points, and expand our ideas and ways to solve problems.

I. Take innovative team building as the carrier to lead the professional development of teachers in vocational colleges

In recent years, the scale and quality of China's "double-qualified" teachers have been expanding and improving, but the construction of "double-qualified" teachers is still a shortcoming that restricts the high-quality development of China's vocational education. On February 13, 2019, the State Council issued a notice on the implementation plan of national vocational education reform, demanding to explore the establishment of a high-level and structured teaching innovation team for teachers and explore the modular teaching mode of teachers' division of labor and cooperation. On October 13, 2023, in order to thoroughly study and implement the spirit of the 20th National Congress of the Communist Party of China and implement's important exposition on education, according to the Opinions of the General Office of the CPC Central Committee and the General Office of the State Council on Deepening the Reform of Modern Vocational Education

System Construction, the Teacher Work Department of the Ministry of Education issued a notice for higher vocational schools to carry out the third national vocational education teacher innovation team construction work. The notice requires the selection of about 120 national vocational education teacher innovation team construction project units, and demonstrates and leads local schools to continuously build high-level teachers in



vocational colleges.

From a structural point of view, teaching innovation team is a grass-roots teaching organization which is composed of members with complementary knowledge, skills and experience and carries out teaching reform through division of labor and cooperation. How to build an innovative team. Taking modular teaching as an important content, exploring the innovation of project-based teaching and situational teaching; Industry enterprises participate in the whole process of personnel training program formulation, curriculum system reconstruction, modular teaching design and implementation; Constantly develop and improve curriculum standards; Reconstructing professional curriculum system based on professional work process; Incorporate resources such as new technologies, new processes, new norms and high-quality courses into professional

course teaching; Study and formulate the modular curriculum scheme of professional ability, and divide each major into several core module units; To do a good job in the overall curriculum design, innovative team teachers should prepare lessons collectively, cooperate in teaching and research, and carry out modular teaching through division of labor and cooperation.

II. Take standards as the guide to promote the construction of high-quality "double-qualified" teachers

Teachers are the key to education, and the high-quality development of vocational education cannot be separated from the high-quality development of teachers. In 1991, the academic circles put forward the concept of "double-qualified" teachers ("Strive to build" double-qualified "teachers" Wang Yicheng. Research on Higher Engineering Education). In 1995, the former State Education Commission put forward the concept of "double-qualified" teachers in policy for the first time (Vocational Education [1995] No.15). In 1997, Tianjin Vocational and Technical Demonstration University "' Undergraduate + Technician "-a new mode of applied talents training" won the first prize of national teaching achievements, which was widely recognized and promoted, leading the construction of "double-qualified" vocational education teachers to enter a new stage. Since 1990s, China has made many explorations on the identification standards of "double-qualified" teachers, and formed many concepts such as "double professional titles", "double certificates", "double abilities", "cool quality" and "dual theory".

In 2005, the State Council first wrote "double-qualified" teachers into the State Council document ("Decision on Vigorously Developing Vocational Education"). In 2018, the CPC Central Committee issued the first landmark document "Opinions of the CPC

Central Committee and the State Council on Comprehensively Deepening the Reform of Teacher Team Construction in the New Era": "Improve the quality of teachers in vocational colleges in an all-round way and build a high-quality" double-qualified "teacher team". In February, 2019, the State Council initiated the "Implementation Plan of National Vocational Education Reform", taking multiple measures to build a "double-qualified" teacher team. In October 2020, the Ministry of Education and other nine departments jointly issued the Action Plan for Improving Quality and Cultivating



Excellence in Vocational Education (2020-2023), which implemented the "three religions" reform of In October 2021, the General Office of the CPC Central Committee and the General Office of the State Council issued the Opinions on Promoting the High-quality Development of Modern Vocational Education, proposing to strengthen the

construction of "double-qualified" teachers and formulate the standards for "double-qualified" teachers. The accreditation standard is the basis for the training, appointment and evaluation of "double-qualified" teachers in vocational colleges, and plays a leading role in the construction of teaching staff. Guided by standards, a number of documents were issued in 2022, including May 17, "Notice on Improving the Ability of Vocational Education Teachers", September 22, "Further Strengthening the Construction of Teachers' Teaching Team in National Vocational Colleges", October 25, "Basic Standards for Double-qualified Teachers in Vocational Education (Trial)", and December 21, "Opinions on Deepening the Reform of Modern Vocational Education System Construction"

III. The new requirements and measures for the construction of double-qualified teachers

General Secretary Xi Jinping emphasized at the National Education Conference that the construction of teachers should be regarded as the basic work. "Double-qualified" teachers are teachers who can combine vocational skills with education and teaching. They not only have solid professional knowledge and skills, but also are familiar with education and teaching theories and methods, which can cultivate students' professional quality and comprehensive ability. As an academic concept, "double-qualified" teachers refer to educators of vocational education institutions who have basic educational and



professional quality, are proficient in specific professional technological principles and professional practical ability, and are competent to undertake the task of educating and training vocational education learners. (East China Normal University) vocational education and improved the quality of "double teachers".

IV.instructional design and implementation based on action-oriented teaching strategy

Based on the national vocational qualification appraisal standard, the action-oriented teaching methods such as project teaching method, case teaching method, task-driven teaching method, role-playing method and simulation teaching method are used to organize teaching with professional activities in the work field as the content, ability as the standard and employment as the guide.

Action-oriented teaching model (Handlungsorientierte Unterricht) is based on cognitive action theory, action regulation theory, social interaction theory and situational cognitive learning theory and other educational psychology theories. Emphasis is placed on student-centered, promoting students'active participation, attaching importance to individualized learning needs and students'all-round development. Encourage students to carry out cooperative learning, solve problems through teamwork, and realize the learning of knowledge and skills. In the teaching process, we pay attention to task guidance and interdisciplinary, and advocate students to master knowledge and skills bycompleting specific and practical learning tasks. The application of action-oriented teaching mode in vocational education originated in Germany at the earliest, and has been widely concerned in German vocational education circles, and is known as the "sharp

weapon" of German vocational education. After being introduced into China, this model has become a hot topic in China's vocational education reform. Take the class of "Fruit Classification" as an example;

Import (5 minutes):

Before class, teachers prepare several common fruits and non-fruits, and ask students to tell the differences between different fruits: (1) What are not fruits from a botanical point of view? (2) Briefly review carrots (store roots, not fruits); (3) Briefly review the differences between "fruits and vegetables", when students mainly answer teachers' questions.

Processing I (10 minutes):

Teachers make a brief introduction to the fruit: (1) goal description: basic understanding of the shape of the fruit; (2) What are the characteristics of fruit (take peach as an example) (3) Take coconut as an example to continue to explain; (4) Why plants bear fruit? Students judge according to the teacher's introduction: the definition of "fruit" in botany team; What is the function/task of fruit.



Processing II (30 minutes):

Teachers divide students into four groups, assign tasks, explain time regulations and distribute materials. Students analyze and summarize the characteristics of fruits of various shapes according to articles with graphics.

Consolidation exercise (30 minutes)

The teacher prompts the students to change groups, explains the time limit, and consolidates the results through the reference answers on the slides. According to the learning results, students describe the fruit graphics with words, classify the fruits correctly, and ask students to write the types of fruits in the corresponding positions of the pictures.

Examination of learning objectives (15 minutes)

Teachers use intelligence test questions to test students' learning results. Behavior-oriented teaching mode aims to help students learn while doing, experience while doing, understand while doing, and master the combination and application of some methods and skills.

V. Thinking and Practice of Integration of Production and Education and School-enterprise Cooperation in Vocational Colleges

Enterprises pay attention to 35 basic working abilities of graduates:

Skills knowledge and reasoning ability: equipment selection, installation ability, maintenance of machines and systems, equipment maintenance, quality control analysis, computer programming;

Open thinking and innovative ability: systematic analysis, comprehensible reading, judgment and decision-making, critical thinking;

Personal professional ability: material management, financial management, human resource management, solving replication problems, scientific analysis, troubleshooting, targeted writing;

Communication and teamwork: active listening, understanding, negotiation skills, persuasion, effective oral communication;

Attitudes and Habits: Mathematical Solutions, Time Management, Learning Methods,

Active Learning;

Responsibility: Operation and control, coordination and arrangement, operation monitoring and performance management;

Values: guiding others and serving others;

Application creates social value: system evaluation, new product conception.



VI. The Leading Way of Dalian Neusoft

Institute of Information

At the beginning of the school in 2000, IT put forward "five-element knowledge structure": IT technology, language and communication, values and attitudes, organization and management, and lifelong learning ability. On this basis, in 2008, drawing lessons from the achievements of international engineering education reform and making it Chinese and local, the integrated TOPCARES talent training method was put forward and implemented, that is, Technical knowledge and reasoning; Open thinking

and innovation; Personal and professional skills; Communication and teamwork; Attitude and manner;

Responsibility;

Ethical values; Social Value Created by Application Practice. TOPCARES characteristic education method is the practical application of constructivism and cognitive development theory in Dalian Neusoft Institute of Information.

Results-oriented China Engineering Education (OBE) Certification Standard (2015): What are students' learning achievements, why make students achieve such achievements, how to help, how to know and how to guarantee students to achieve these learning achievements.

Curriculum system has changed from positive design to reverse derivation: demand-training goal-graduation requirement-index point-curriculum system-teaching requirement-teaching content.

Teaching arrangement has changed from teacher-centered to student-centered: from what to teach, how to teach and how to teach, to what to learn, how to learn and how to learn; Students have changed from passive recipients of knowledge to active learners, independent constructors, active discoverers and persistent explorers. Teaching evaluation has changed from quality monitoring to continuous improvement: making teaching quality management form P-D-C-A closed loop, realizing the continuous improvement of training objectives, graduation requirements

- 构建立体学习环境，突出学生职业综合能力培养

举例：“TOPCARES”特色教育方法学



and teaching activities.

TOPCARES embodies the school's greatest care for students, and highlights the cultivation of students' comprehensive vocational ability by constructing a three-dimensional learning environment. By promoting the overall and coordinated development of students' knowledge, ability and quality, we can create students' value, and create social value through students' future contribution to society, thus realizing the value of universities.

TOPCARES Characteristic Education Methodology;

Campus culture guidance of enterprise industry leaders; Platform resources for students to start businesses in school within five years after graduation.

The road is long and coming. With dreams, firm beliefs, standardization as the guide, thoroughly implementing the Party's educational policy, and taking the construction of double-qualified teachers as the breakthrough point, the high-quality development of vocational education will be systematically promoted!

References:

[1] Wu Haoni, Xi Hua. Analysis of the new model of "double-qualified" teaching staff construction based on school-enterprise cooperation and modern apprenticeship system [J]. Heilongjiang Science, 2022, 17: 107-109.

[2] Ba Jiahui. Research on the Construction of School-enterprise Teacher Integration under the Background of Modern Apprenticeship--Based on the Perspective of "Cross-enterprise Training Center" [J]. Journal of ningbo polytechnic, 2021, 25 (01): 55-59.

[3]DingYuhong. Discussion on the construction of teaching staff in higher vocational curriculum reform based on results from the perspective of "double highs" [J]. Science and Education Journal (late issue), 2020, (36): 82-83.

[4] Luo Yucheng; Kun Wang. Research on the practice of modern apprenticeship with Chinese characteristics under the background of "Double High Plan" [D]. Yunnan Normal University, 2023.