Research on the Training Mode of Adaptive Talents in Higher Vocational Education Under the Background of Educational Informatization 2.0

Xuemei Cai

Urban Vocational College of Sichuan, Chengdu, China
scucxm@163.com

Abstract. Under the background of education informatization 2.0, higher vocational colleges take the construction of smart campus as the starting point, build an information platform, build a dual education platform of “school + enterprise” and an education team of “counselors + professional tutors + enterprise practice tutors”, carry out “N + 1 + 1” academic evaluation, and build a four in one talent training guarantee system of “system and mechanism + school running conditions + talent team + party building and ideological and political education”, Build a higher vocational adaptive talent training mode under the background of educational informatization 2.0, and cultivate high-quality adaptive technical and skilled talents.

Keywords: education informatization 2.0 · adaptability · formatting · mode

1 Introduction

The proposal of the CPC Central Committee on formulating the 14th five year plan for national economic and social development and the long-term objectives for 2035 puts forward “increasing human capital investment and enhancing the adaptability of vocational and technical education”. (1) It is an important mission of higher vocational colleges to cultivate fully adaptable high-quality technical and skilled talents in line with the needs of industrial development, serve the needs of building a modern economic system and realizing higher quality and full employment. At present, new technologies, new industries, new formats and new models put forward new requirements for higher vocational Graduates. Industrial transformation and upgrading also puts forward professional cluster development requirements for the training of high-quality compound technical and skilled talents. Higher vocational colleges urgently need to innovate management methods, reform talent training mode and improve the adaptability of talents. Therefore, it is an inevitable requirement to enhance the adaptability of Vocational education to cultivate students with “quick start and strong future” and promote students to grow into adults. (2) Modern vocational education and educational informatization 2.0 action plan put forward new requirements for the construction of adaptive talent training mode in higher vocational education.

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2 Materials and Methods

2.1 Update the Education Concept

Higher vocational colleges should strengthen the concept of quality education and personality development, and gradually establish the training concept of “student-centered and education oriented”. With “satisfying students’ personalized development and highlighting diversified training” as the main line, we have practiced the talent concept of “general knowledge + professional talents”, the comprehensive concept of “moral, intellectual, physical and labor” education, the “four self” subjective concept of “self-supervision, self-management, self-service and self-education”, the four-dimensional sustainable development concept of “Ideological and moral + academic development + physical and mental development + practical innovation”, and the teacher concept of “teaching + educating people”. Establish the goal of training high-quality adaptive technical and skilled talents who are “all-round development + personality development + sustainable development” required by industrial enterprises.

2.2 Build an Intelligent Management Service Platform

Establish a unified data center and identity authentication platform of the school, create an online service hall, realize mobile office, and form a table for the roles of teachers, students, cadres and departments. Establish a dynamic adjustment mechanism for data standards, optimize and improve school data standards, promote data integration and sharing, and eliminate data islands. Mine data information, conduct multi-dimensional and multi-level data modeling and analysis, form big data visual analysis and prediction, and focus on the “one table” project covering classroom teaching, student management, scientific research, social services, training, specialty construction, curriculum construction and other dimensions of statistical analysis. Form teacher development, student growth, tutor guidance, counselor education and cadre performance tables, and realize the dynamic data monitoring, analysis and prediction of the whole life cycle development of teachers and students; Form a table for department construction and school development, serve the school’s strategic development, assist the school in scientific management and accurate decision-making, and comprehensively improve the school’s governance ability and education level. Improve the “one-stop online service hall”. Taking serving the personalized needs of teachers and students as the core, reconstruct the service process of management, teaching and education, make use of the “one-stop online service hall”, improve the convenience and experience of teachers and students to obtain information services, and improve the management efficiency and service level.

2.3 Build a Smart Teaching Platform

Make use of new generation information technologies such as cloud computing, Internet of things, big data and artificial intelligence to carry out professional digital transformation, integrate the concept of “information technology +” into the construction of majors and professional groups, and develop emerging majors. Build an integrated teaching platform. Focusing on “student-centered”, promote the new mode of “Online
+ offline” teaching, promote classroom revolution, implement students’ right of choice, independently arrange academic process, course selection, teacher selection, activities and lectures, and promote students’ independent, ubiquitous and personalized learning. Integrate the existing online teaching system, teaching management system and professional teaching resource system, deeply integrate big data, artificial intelligence and other technologies, and build an integrated teaching platform of teaching, examination, management, evaluation and capital” covering classroom teaching, examination, educational administration management, teaching evaluation and resource construction, which runs through the whole process of teaching management and teachers’ and students’ teaching activities. Create a smart teaching environment. By constructing the application environment of educational informatization, promoting the teaching application practice of new technology and hot technologies, and cultivating the application ability of teachers and students to computer related software, we can continuously improve the information literacy, informatization application ability and teaching level of teachers and students.

2.4 Build a Platform for School and Enterprise Education

Build an education platform of “school + enterprise”, cooperate with enterprises to cultivate multiple subjects and promote all-round education. Focusing on the fundamental task of Building Morality and cultivating people, the school takes general education as the starting point, quality cultivation education and second classroom activities as the support, integrates general education, quality cultivation, second classroom, labor education and social practice activities, optimizes the living environment, expands cultural activities and strengthens professional quality; Develop general courses, upgrade the quality cultivation education system, promote the second classroom, carry out academic lectures, construct the labor education system, implement the labor week, and deepen the reform of quality education. For the cultivation of professional talents, focusing on professional education, the cooperative enterprise will reform the curriculum system, build online courses, equip professional tutors, carry out professional teaching activities and strengthen professional knowledge and ability. Cooperative enterprise promote the construction of diversified training subjects, deepen school enterprise cooperation, carry out apprenticeship and order training, and cultivate students’ professional quality and skills.

2.5 Build an All-Round Education Team

Set up a three division education team of “counselors + professional tutors + enterprise practice tutors” to jointly promote the education of all staff. Like a “mother”, counselors are responsible for the overall growth of students, realize the value guidance of students, manage students’ education and organizational activities, and concurrently serve as general education teaching. Like the “father”, professional tutors are responsible for students’ professional learning, focusing on cultivating students’ professional knowledge and ability, teaching professional courses, guiding professional activities, competitions and learning planning, strictly implementing the collective guidance at least once a month, comprehensively covering individual guidance, and providing timely guidance for special needs. At the same time, higher vocational colleges need to deepen school
enterprise cooperation, hire industry enterprise experts and technicians as enterprise practice tutors to teach students practical skills, enhance the cultivation and practical guidance of students’ industry literacy, and improve students’ social adaptability.

### 2.6 Carefully Select Educational Content

Implement the construction of international paradigm specialty, take the selection of talent training content of “general education + specialty” as the priority, and reconstruct the professional curriculum system. Aiming at the needs of industry enterprises, graduates, school students, peer teachers, school teachers and other personnel training stakeholders, higher vocational colleges draws lessons from the Sydney agreement, follows the three principles of “student-centered, output oriented and continuous improvement”, (3) conducts stakeholder research, scientifically establishes training objectives and determines the professional core competence required for students’ development, Design graduation requirements and standards, learn from OBE concept, reconstruct professional curriculum system, draw curriculum map, scientifically determine training content and train students in an all-round way.

### 2.7 Innovative Education Measures

In order to meet the personalized needs of students and solve the problem of teaching students in accordance with their aptitude, higher vocational colleges should innovate the training measures of “credit system + academy system + tutorial system”, take “credit system” as the traction, and “academy system” and “tutorial system” as the support, and build a diversified personality training mechanism. According to the different types of students in general middle schools, secondary vocational schools and retired groups, we will design talent training programs in three categories and six sets, increase the supply of professional education resources and quality education resources, increase the number of elective courses, promote the implementation of the “professional credit + quality credit” dual learning system, and set up special second class credits and labor education credits to provide students with more choices. Through the “tutorial system” to guide students to “Select Courses” and “select teachers”, give students the right to choose their own courses, innovate the education and teaching management system and teaching organization methods, establish a training mechanism for students to choose their own courses, choose their own teachers, arrange their own academic progress, build their own knowledge and ability system, and manage independently, (4) and enhance students’ personality development, professional ability, practical ability and sustainable development ability in higher vocational colleges.

### 2.8 Promote Teaching Reform

Promote the high-quality classroom construction of “classroom norms + classroom reform”. Reshape classroom ecology, standardize classroom management, standardize classroom teaching, rectify classroom teaching order, establish school level inspection teams and teaching unit inspection teams with students’ participation, implement
grid inspection throughout the hospital, establish daily, weekly, monthly and look back inspection data systems, and form a normalized and all-round classroom teaching governance and supervision system. Ensure the quality of classroom teaching from external standards. We should promote the reform of curriculum standards and normalization course contents and methods, promote the implementation of Internet plus curriculum, implement the reform of diversified classroom teaching forms such as flipped classroom, mixed type, and make full use of information means such as intelligent classroom and learning communication, turn knowledge into questions, turn problems into thinking, and turn thinking into programs, turn the plan into action (practice), strengthen the cultivation of practical ability, give full play to students’ subjectivity, improve students’ learning interest and learning ability, make the classroom “active”, attract students from the essence of curriculum and curriculum teaching quality, and make high-quality classroom a channel for high-quality talent training.

2.9 Evaluation of Reform Learning Effect

Reform Students’ academic evaluation, and implement multiple academic evaluation in the whole process. Scientifically set assessment standards through paradigms, refine assessment requirements, and set achievement evaluation methods; Strengthen standardization, strictly examine the qualification of course assessment, and promote the construction of examination style; Promote the process assessment reform of the “N + 1 + 1” model of the course, in the form of “N” process assessment in the form of classroom notes, classroom questions, discussions, attendance, unit stage tests, practical experiment assessments, including examinations, daily tests, assignments etc. (5) Add a final examination of the course and a characteristic examination of the course to highlight the skill assessment; Introducing enterprises to conduct multiple academic evaluation; Strictly control the teaching quality, implement the separation of teaching and examination, and form a multi process academic evaluation.

2.9.1 Construction of Guarantee System

Build a four in one talent training guarantee system of “system and mechanism + school running conditions + talent team + ideological and political education of Party building” to support the implementation of high-level talent training system in higher vocational education. In terms of system and mechanism, by straightening out the four relationships between shareholders and the Council, the Council and the president, the University Party committee and administration, managers and teachers, students and employees, the president responsibility system under the leadership of the Council is implemented, and the decision-making mechanism with the Council as the main body, the implementation mechanism with the joint meeting of the party and government as the main body, and the supervision mechanism with the board of supervisors and academic and party mass organizations as the main body are established and improved to implement the decentralization and authorization of the Council The system of deliberation and decision-making at the joint meeting of the party and the government, expert governance, democratic supervision, etc.; Implement the two-level management mode
of the University and the college and the reform of the large department system of functional departments, and establish the respective power lists of the three management levels of the Council, the University and the secondary college; Build a management by objectives system and an internal quality diagnosis and reform system, decompose KPI indicators layer by layer, and implement systems and mechanisms such as goal orientation, task driving, all staff assessment, reward the good and punish the bad to support talent training. In terms of school running conditions, the implementation of action to improve teaching conditions to support talent training; Establish a unified data center and identity authentication platform of the school, create an online service hall, realize mobile office, and form a table for teachers, students, cadres, departments and other roles. In terms of talent team, we will implement the action to strengthen the teaching team, strengthen the introduction of professional leaders and double high school teachers, improve and improve the incentive mechanism for teacher development, establish a training mechanism and platform, and introduce policies such as subsidizing doctoral studies to provide human resources support for talent training. In terms of Party building, ideological and political work, the party building office was established to give full play to the political core role of the Party committee, actively build an internal governance system with the party organization as the core, promote all departments to deeply implement talent training reform, improve the school’s governance ability and governance level, and guide talent training with the support of Party building, ideological and political work.

3 Concluding

Through the construction of the information platform, this mode has unblocked the communication mechanism of talent training and big data statistical analysis, integrated educational resources, condensed educational forces, solved the problem of insufficient adaptability of talent training, and continuously enhanced the comprehensive, personalized and sustainable adaptive development of students. Since its practice, it has trained two higher vocational education graduates. From the aspects of student employment rate, satisfaction of employment units and student competition awards, this model integrates modern advanced education concepts such as quality education, personality development and lifelong development, and meets the target needs of cultivating high-quality technical and skilled talents with “all-round development + personality development + sustainable development” required by diversified growth and adaptive industrial enterprises, It can solve the problems that the current higher vocational education generally has insufficient cooperation in the training of adaptive talents and the lack of adaptability of the trained talents.

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References

3. Li Yun; Cui Haibo; Chen Yuan; Yang Huanggen, Exploration on the teaching reform of Chemistry Specialty Based on OBE concept [J] Guangdong chemical industry, 2020.

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