

Exploration and Reflection on Modern Apprenticeship Talent Cultivation Mode in Higher Vocational Colleges and Universities

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Abstract: Modern apprenticeship is a talent cultivation mode of deep integration between schools and enterprises, and an effective way for higher vocational colleges and universities to improve the quality of talent cultivation and realize professional service to society. Guangxi College for Preschool Education of Special Education College of Applied Behavior Analysis cooperates with Guangxi Youzhuan Special Children Care Service Center to coeducate rehabilitation teachers of autistic children using the modern apprenticeship mode, constructs school-enterprise synergistic cultivation mechanism, promotes the integration of enrollment and recruitment, improves the system and standard of talent cultivation, builds the faculty team that is mutually employed by the school and enterprise, establishes the guarantee for the management system of modern apprenticeship, and so on. The practice has been carried out with the initial experience gained. However, the construction of a long-term operation mechanism of the modern apprenticeship mode still requires consideration of the contradiction with the traditional cultivation mode and the construction of a perfect evaluation system.

Keywords: Higher vocational; Modern apprenticeship; Talent cultivation mode

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1. Background

At the 2023 National Education Work Conference, General Secretary Xi Jinping put forward the idea of “insisting on the development of people-centered education,” which is kind and inspiring, and provides ideological weapons and motivation for China’s vocational education in establishing moral character and realizing transformation and upgrading. The rapid development of society has created a huge demand for the number of workers, and the traditional apprenticeship system makes it difficult to meet the number of workers in the era of big machines, so vocational education has been transferred from the family and small workshops to the school, and school-led vocational education has emerged ^[1]. Over the past few decades, vocational schools have cultivated a large number of skilled personnel for society, but the current social demand for talent has changed, and traditional school-led vocational education can no longer meet the rapid development of vocational education and the needs of the rapidly advancing industry. First of all, most of the school teachers

belong to academic schools, with higher theoretical levels than practical levels, and they do not have experience working in the front line of enterprises, thus it is challenging for them to guide the students' practical learning. Secondly, the enterprises have almost no opportunity to participate in the cultivation of talents. The students can only enter the enterprises after graduation or during the centralized internship, and they face the confusion of transferring to other ranks, hence it is difficult for them to quickly complete their role transformation. Thirdly, the enterprises' guiding capability is insufficient. Even if enterprises have the opportunity to participate in talent cultivation, there is a situation of uneven levels of enterprises, thus it is difficult to ensure the quality, character, and capability of enterprise instructors. Fourthly, there is poor communication between schools and enterprises and a lack of effective communication channels and participation mechanisms^[2]. In response to the problems in the development process of vocational education, the state has put forward a series of solutions and suggestions in recent years, and the modern apprenticeship system has been applied accordingly^[3]. In August 2014, the Ministry of Education issued the "Modern Apprenticeship System," which is the most effective system for vocational education in China. At the same time, the Opinions on Carrying Out the Pilot Work of Modern Apprenticeship was issued by the Ministry of Education as a way to rapidly promote the exploration and practice of modern apprenticeship. The revised Vocational Education Law of the People's Republic of China of 2022 stipulates that "the state implements the apprenticeship system with Chinese characteristics, and guides enterprises to set up apprenticeships according to a certain percentage of the total number of positions." The modern apprenticeship system is a typical mode of realizing the integration of industry and education and "dual" education of school and enterprise through in-depth cooperation between schools and enterprises, joint training of teachers and masters, and the dual identity of students as apprentices, with the goal of cultivating high-quality technical and skilled talents^[3].

The Applied Behavior Analysis major of Guangxi College for Preschool Education is the second batch of modern apprenticeship pilot majors in Guangxi Zhuang Autonomous Region, and it has been committed to exploring the ways and modes of school-enterprise cooperation and integration of industry and education. In 2020, the Applied Behavior Analysis major and the Guangxi Youzhuan Special Children Care Service Center set up a pilot class for modern apprenticeship and started the practical exploration of the cultivation of modern apprenticeship talents.

2. Practical exploration of modern apprenticeship

Since the Applied Behavior Analysis major was approved as the second batch of modern apprenticeship pilot majors by the Ministry of Education, in accordance with the "Opinions of the Ministry of Education on Carrying Out the Pilot Work of Modern Apprenticeship" (Teaching Vocational Training [2014] No. 9) and the "Circular of the General Office of the Ministry of Education on Comprehensively Promoting the Work of Modern Apprenticeship" (Letter of the Department of Teaching and Vocational Training [2019] No. 12), we have been actively carrying out the work following the requirements of the task statement of the project declaration and the implementation plan. We carried out the pilot work, completed the annual pilot task, and achieved stage-by-stage results.

2.1. Constructing the mechanism of collaborative education between schools and enterprises

The pilot leading group puts great emphasis on the promotion of the pilot project and holds more than two project promotion meetings per semester. In early November 2019, the founding conference of the school-enterprise "double subject" schooling alliance, the launch ceremony of the pilot project, and the seminar on modern apprenticeship were held. At the same time, experts were invited to consult and validate the modern

apprenticeship construction program and modern apprenticeship talent training program. The guiding role of industry and enterprise experts on professional construction is fully respected, and cooperative enterprises are fully involved in the process of collaborative management and education. The National Expert Steering Committee on Modern Apprenticeship holds the view that the basic features of modern apprenticeship are school-enterprise “double-body” education, interactive training and teaching, job training, apprenticeship dual status, alternation of work and on-the-job success, with the core element of school-enterprise “double-body” education and apprenticeship dual status ^[4].

2.2. Promoting the integration of enrollment and recruitment

In order to gradually increase the participation of industrial enterprises in school administration, improve the diverse school system, and fully implement school-enterprise collaborative education, there is a need to reform the talent training model. This aims to better explore school-enterprise cooperation, develop an industry-teaching fusion operation system appropriate for the school, promote the transformation of results, and cater to community needs. Through negotiations with the Guangxi Youzhuan Special Children Care Service Center, an order class is proposed. In this class, students have the autonomy to enroll, and a two-way selection process involving interviews with enterprises is employed. Ultimately, 30 individuals are selected for joint cultivation by both the school and enterprises. Before the students enter the enterprise to study, they sign a “tripartite agreement” with the enterprise, which regulates and protects the relationship and rights and interests of the students (apprentices), the enterprise, and the school according to the law. A simple but solemn ceremony is held to pay tribute to the masters, with the leaders of the college awarding the certificates of appointment to the masters of the enterprises, and the apprentices bowing to the masters of the enterprises and saluting tea. In July 2021, the apprentices successfully entered the cooperative enterprises to formally begin the apprenticeship.

2.3. Improving talent training system and standards

The dean of the college, vice president, and professional teaching team collaborated with Guangxi Youzhuan Special Children Care Service Center for professional research to understand the specific talents, qualities, and skills requirements sought by enterprises through a typical job task analysis. Based on the research, the modern apprenticeship talent training program was revised, and the talent training mode and curriculum system were boldly reformed. A “segmented education, cycle progression” modern apprenticeship talent training model was formed ^[5], in which students enter the enterprise for the initial, advanced, step-up apprenticeship over 6 primary semesters totaling 44 weeks.

2.4. Construction of mutual employment and sharing of teachers between schools and enterprises

Schools and enterprises have jointly formulated the selection criteria for enterprise masters. After inspection and selection by both the school and the enterprise, five enterprise backbones were selected as the first batch of enterprise masters. The first batch of enterprise masters are all professionals as certified applied behavior analysts, with a strong sense of job responsibility, good professional ethics and teamwork spirit, and outstanding organizational management, ideological education, and professional education capabilities. At the same time, the college sends teachers to work in enterprises, participate in enterprise management, and join front-line teaching and supervision. At the same time, enterprise teachers are hired to join the university classroom teaching and take up the core course teaching tasks. Mutual hiring of teachers and exchange of talents between schools and enterprises are realized ^[6].

2.5. Establishment of modern apprenticeship management system guarantee

It has drafted and formulated a series of measures such as “Management Measures for Integration of Enrollment and Recruitment,” “Agreement on Enrollment (Recruitment) of Modern Apprenticeship,” “Management Measures for Teaching of Modern Apprenticeship,” “Management Measures for Quality Monitoring of Teaching of Modern Apprenticeship,” “Management Measures for Cooperation between Schools and Enterprises,” “Agreement on Cooperation between Schools and Enterprises,” “Management Measures for Integration of Enrollment and Recruitment,” “Agreement on Enrollment (Recruitment) of Modern Apprenticeship,” “Measures for the Administration of Dual Tutors,” etc. Modern Apprenticeship Teaching and Management System that provides operational norms for the implementation of modern apprenticeship should be established ^[7].

3. Problems and improvement measures

3.1. The contradiction between the requirements of high-level rehabilitation skill-oriented talents training and the limited class hours

Community Rehabilitation Major (Applied Behavior Analysis Direction) belongs to the three-year non-teacher-training major, and students are in school for two years, with the off-campus intensive internship stage in the third year. According to the “Guidance of the Ministry of Education on the Formulation and Implementation of Professional Talent Cultivation Programs in Vocational Colleges and Universities” (Teaching Vocational Training [2019] No. 13), three-year higher vocational education arranges 40 weeks of teaching and learning activities in each academic year, with the total number of hours not less than 2,500, and the number of hours of the public foundation courses should be not less than one-fourth of the total number of hours. Completing general education, professional foundation education, and professional skills education in a limited two-year’s time is a significant challenge. How to do so without losing sight of one or the other and taking into account all-round development is the first and foremost problem to be solved. Building a close community of industry-teaching integration, realizing mutual employment of teachers between schools and enterprises and the flow of talents between schools and enterprises, and complementing the advantages of the two, will help to cultivate the “dual-teacher” team in schools and improve the teaching level of teachers in enterprises ^[8].

3.2. The contradiction between the traditional way of training by class hours and the demand for centralized learning

Student’s total number of hours is limited, so the hours of each course are relatively fixed according to the importance of the course, with most of the hours between 36–48 hours and weekly scheduling of 2–3 classes. Due to the limited learning time and an intensive daily schedule, students need to transition promptly to the next classroom for their subsequent lessons, leaving little room for large blocks of free time for students to freely arrange their schedules. This scheduling pattern is appropriate for theoretical learning, but unfavorable for practical learning or social learning. The modern master-apprentice system is more similar to a kind of “immersive learning,” the master and apprentice require more interaction and time to observe, discuss, provide feedback, practice, explain, and teach by example to influence and motivate the students, which cannot be realized in a few lessons.

Therefore, the Applied Behavior Analysis Teaching and Research Department boldly innovates and takes multiple measures to explore solutions to difficulties. For example, in the talent cultivation program, a progressive higher vocational education curriculum system that is centered on student development and oriented to the progression of vocational ability is built, which promotes the effective combination of engineering and learning, and exhibits the feature of systematization of work process knowledge. The curriculum system

is centered around work positions, realizing horizontal integration, vertical linkage, and overall design of vocational education courses^[9]. The amount of class time for core courses has been increased, and the Applied Behavioral Milestones Assessment and Placement Procedures course has been raised from 32 to 64 hours, with four classes scheduled per week, so that students will have one half-day per week to immerse themselves in the classroom and practice, and to carry out more in-depth and solid teaching.

3.3. Difficulties in the establishment and implementation of the evaluation system for enterprise teachers

To realize the master-apprentice system of education, the most crucial aspect is that the master should have the capability to take on the heavy responsibility of guiding the apprentice. Schools and enterprises did not reach a consistent standard in the “double teacher” recruitment, training, and assessment, resulting in school and enterprise “double teacher” quality imbalance. Higher vocational teachers have sufficient professional knowledge but inadequate vocational skills; enterprise masters with professional skills is considered an advantage, but the professional theory and teaching theory and methods of education are insufficient^[10]. The university functions to cultivate talents for the party and the people, so it involves the control of many factors, such as ideology, moral character, professional knowledge, professional skills, professional ethics, etc., and there cannot be a hint of relaxation. Selecting the masters with both moral integrity and talent among the complex and diverse personnel is also a key part of realizing the master-apprentice system.

In response to this difficulty, we firstly perform strict screening of internship and apprenticeship cooperative units, formulate selection criteria for cooperative enterprises, and select the best among the best, so as to maintain the high standards of talent cultivation; we also formulate selection criteria for teachers of the enterprises, and carry out multi-dimensional and all-round assessment in terms of ethical qualities and professional abilities, and match the assessment grades with the remuneration and treatment; and implement the system of one-vote veto for teachers’ morality and ethical behavior. If moral and behavioral problems and illegal and disciplinary phenomena appear in the process of teaching, the teacher will be dismissed from the profession and the apprentice system. If there are any issues in moral character and violation of laws and discipline in the process of teaching, the cooperation relationship will be terminated.

Disclosure statement

The authors declare no conflict of interest.

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