

Research on the Talent Cultivation System Adapted to the Integrated Development of the Yangtze River Delta Region

-- Taking the Electronic Information Major in Higher Vocational Colleges as an Example

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Abstract

As one of the most vibrant, open, and innovative regions in China's economic development, the Yangtze River Delta (YRD) region holds great significance for building a modern socialist powerful country and achieving national rejuvenation through its integrated and high-quality development. This paper delves into the talent cultivation system tailored to the integrated development of the YRD region, using the electronic information major in higher vocational colleges as a case study. It analyzes the prevalent issues in talent cultivation within the YRD region and proposes strategies to effectively enhance students' professional skills and employment competitiveness by clarifying cultivation objectives, integrating educational resources, reforming teaching methods, deepening university-enterprise cooperation, and establishing a quality monitoring and evaluation feedback system. The implementation process emphasizes market demand analysis, strengthens the integration of industry and education, and ensures teaching quality. This talent cultivation model provides valuable experience and insights for promoting the cultivation of electronic information professionals in higher vocational colleges across the YRD region.

Keywords

Yangtze River Delta, Higher Vocational Colleges, Electronic Information, Talent Cultivation, Industry-Education Integration.

1. Introduction

In the context of today's globalization, the talent cultivation systems both domestically and internationally are undergoing profound transformations and innovations. To embrace the rapid national and international development, countries are actively exploring and constructing talent cultivation models that cater to the demands of the new era. It's well known that the Center for Humanities and Cultural Exchange of the Ministry of Education initiated the "Innovative Practice Project for Cultivating High-level International Talents" in 2020[1]. Centered on the core of talent cultivation models, this project focuses on key aspects such as awareness cultivation, curriculum development, academic innovation, internship and practical training, and teacher development. It promotes the exchange and sharing of high-quality educational resources at home and abroad, forming a comprehensive cultivation system that spans from "lectures to courses, practical training, academics, and talent dispatch." To date, the project has attracted numerous universities to participate, benefiting tens of thousands of teachers and students. It has successfully facilitated the internships of thousands of students at international organizations, foreign embassies and consulates in China, multinational

corporations, and other institutions, injecting new vitality into the cultivation of international talents in universities.

The Yangtze River Delta (YRD) region, as one of the most economically vibrant and innovative areas in China, closely links its progress in talent cultivation systems with economic development[2]. In recent years, the YRD region has achieved remarkable successes in digital economy, intelligent manufacturing, and high-end equipment manufacturing industries, becoming a significant hub for returned overseas students and international talents. In 2023, the added value of the digital economy in the YRD region exceeded 12 trillion yuan, accounting for more than 40% of the GDP of the three provinces and one municipality, demonstrating a robust development momentum. Meanwhile, the YRD region has also made significant progress in digitizing public services and enhancing the governance efficiency of digital governments. It has innovatively created a series of cross-provincial services, such as "integrated services," "services without application," and "one-code services," providing a more convenient and efficient service environment for talents[3].

However, behind the rapid talent cultivation and economic development in the YRD region, there are still some pressing issues to be addressed. Firstly, the institutional mechanisms for cross-regional talent mobility are not yet complete. Significant differences in talent policies, resources, and services among the four regions pose obstacles to interregional talent mobility[4, 5]. Secondly, the lack of unified planning and top-level design in regional talent cooperation results in insufficient coordination and a lack of clear objectives for cooperative talent development. Furthermore, although the YRD region has made significant progress in international talents, compared with international metropolises, the total number of international talents is still insufficient, the level is relatively low, and the internationalization quality of local talents also needs to be improved.

One of the biggest issues in the process of talent cultivation is the disconnection between talent cultivation and market demand. Currently, with the transformation of business priorities and changes in market demand, enterprises' requirements for talents are also undergoing profound changes[6]. However, some universities and talent cultivation institutions have not fully kept pace with market changes in terms of curriculum design and practical teaching, leading to difficulties in fully meeting the actual needs of enterprises[7]. Therefore, how to strengthen the connection between talent cultivation and market demand and improve the pertinence and effectiveness of talent cultivation has become an important issue facing the current talent cultivation system.

In summary, the YRD region has achieved remarkable successes in talent cultivation and economic development but still faces some problems and challenges. In the future, it is necessary to further strengthen the innovation and practice of the talent cultivation system, promote effective connections between talent cultivation and market demand, and contribute more to the sustainable development of the YRD region and the national and international development.

2. Solutions

2.1. Establishing a Unified Talent Mobility and Certification Mechanism

The Yangtze River Delta (YRD) region should establish a unified talent mobility mechanism, encompassing talent certification, mutual recognition of professional titles, and social security integration, to reduce the costs associated with talent mobility. Simultaneously, the four provinces within the region should collaborate on talent policies, resources, and services to ensure the free flow of talent within the area. Taking the YRD G60 Science and Technology Innovation Corridor as an example, this project has actively explored talent mobility by establishing a talent resource sharing platform, facilitating the exchange of talent information

within the region. Furthermore, it has promoted the mutual recognition of professional titles, social security integration, and regional recognition of qualifications such as academic degrees and skill certificates, thereby lowering the barriers for students seeking cross-regional employment and facilitating the cross-regional mobility of talent. In cultivating students majoring in electronic information, schools and departments should actively establish electronic information talent pools to realize the sharing of talent information within the region and cooperate with other institutions, industry associations, and enterprises in the YRD region. By introducing advanced production equipment and technical personnel from enterprises, students can gain practical opportunities and skills training. Through hands-on training, students can master advanced electronic information technologies and production processes, enhancing their practical abilities and professional qualities.

2.2. Strengthening Regional Talent Cooperation and Top-Level Design

The YRD region should formulate a unified talent cooperation plan, clarifying cooperation goals, tasks, and responsibilities. By establishing a regional talent cooperation fund and jointly building talent training bases, the region can strengthen talent cooperation and exchanges among its member provinces. Several regional talent cooperation alliances have already been established in the YRD region, such as the YRD Talent Integrated Development City Alliance. Through regular talent exchange conferences, talent forums, and other activities, these alliances have strengthened regional talent cooperation and exchanges. Simultaneously, the alliances have promoted specific measures such as jointly building talent training bases and sharing talent resources. Regarding the cultivation of electronic information talent, vocational colleges should actively participate in the formulation of the YRD region's talent cooperation plan, clarifying the goals, tasks, and pathways for talent cultivation to ensure that it aligns with the needs of regional economic development. They should cooperate with regional enterprises, universities, and research institutions to jointly build electronic information practice bases, research and development centers, and technology transfer platforms, providing students with more practical opportunities and innovative spaces.

2.3. Enhancing the Cultivation of International Talent

The YRD region should intensify its efforts to cultivate international talent by collaborating with internationally renowned universities and enterprises to introduce high-quality educational resources and enhance the internationalization of local talent. At the same time, universities and talent cultivation institutions should be encouraged and supported to engage in international exchanges and cooperation, broadening their international horizons. For instance, Shanghai International Studies University and Lancaster University in the UK have jointly established the "Sino-British International College" project, which provides students with an international learning environment and practical opportunities by introducing high-quality educational resources from the UK. The students trained in this project not only possess solid professional knowledge but also have a high level of international vision and cross-cultural communication abilities. For the cultivation of electronic information students, schools should actively collaborate with internationally renowned universities and enterprises to introduce advanced electronic information courses, textbooks, and teaching methods, thereby enhancing the internationalization of their teaching content. Students are encouraged to participate in internationally recognized standardized professional qualification certificate exams, such as Cisco certifications and Huawei certifications, to improve their international competitiveness.

2.4. Strengthening the Connection Between Talent Cultivation and Market Demand

Vocational colleges should closely monitor market dynamics and corporate needs, promptly adjusting their curriculum and teaching content. By collaborating with enterprises to conduct

practical teaching and jointly build practice bases, students' practical abilities and professional qualities can be enhanced. Additionally, a talent supply and demand information platform should be established to achieve precise matching between talent cultivation and market demand. Jiangsu Vocational and Technical College of Commerce, in collaboration with Alibaba Group, has jointly established the "Alibaba E-commerce College," which has cultivated a large number of e-commerce talents that meet market demands by introducing Alibaba's curriculum system and teaching resources. Simultaneously, the college has cooperated with multiple enterprises to conduct practical teaching and build practice bases, improving students' practical abilities and professional qualities. In terms of aligning the cultivation of electronic information talent in vocational colleges with market demands, schools should closely monitor the development trends and market demands of the electronic information industry, promptly adjusting their curriculum and teaching content to ensure that the knowledge and skills acquired by students are practical and forward-looking. By cooperating with enterprises and industry associations, an electronic information talent supply and demand information platform should be established to promptly publish talent demand information and student job-seeking information, achieving precise matching between talent cultivation and market demand.

3. Project Implementation Process

The talent cultivation project for students majoring in electronic information in vocational colleges begins with demand analysis and planning, clarifying the objectives and plans for talent cultivation. Subsequently, resource integration and platform construction are conducted to ensure sufficient support in terms of teachers, equipment, and practice bases. On this basis, curriculum and teaching reforms are implemented, optimizing the curriculum structure, introducing advanced teaching methods, and considering bilingual teaching and international certifications. Meanwhile, active school-enterprise cooperation and industry-education integration are carried out, establishing close corporate partnerships and initiating industry-education integration projects. During the implementation of talent cultivation, a quality monitoring system is established to ensure teaching quality.

Specifically, the project has established a comprehensive evaluation and feedback system, including comprehensive evaluations of student learning outcomes, teacher teaching quality, school-enterprise cooperation effectiveness, and graduate employment quality. By regularly collecting feedback from students, teachers, enterprises, and industry experts and conducting in-depth analysis, the curriculum and teaching methods are adjusted and optimized based on the feedback results. The school-enterprise cooperation model and industry-education integration strategies are improved, further strengthening resource integration and platform construction.

Ultimately, at the end of the talent cultivation project, a project summary is conducted to showcase project achievements, summarize experiences and lessons learned, and formulate future development plans, laying the foundation for continuous optimization and improvement of talent cultivation efforts.

4. Conclusion

This paper comprehensively elaborates on the implementation process and remarkable achievements of the talent cultivation program for the electronics and information majors in higher vocational colleges. From the outset, the program was clearly oriented towards market demands, with the core objective of enhancing students' professional skills and employment competitiveness. During its implementation, we emphasized resource integration and platform construction, providing a solid material foundation for teaching. Additionally, through

curriculum and teaching reforms, advanced teaching methodologies and bilingual instruction were introduced, significantly improving teaching quality. Furthermore, we actively collaborated with enterprises to carry out industry-education integration projects, allowing students to hone their abilities in practice and enhance their understanding and adaptability to the industry. At every stage of talent cultivation, we established rigorous quality monitoring systems and evaluation feedback mechanisms to ensure teaching quality and effectiveness. By regularly collecting and analyzing feedback from students, teachers, enterprises, and industry experts, we continually adjusted and optimized curricula and teaching methods, improved university-enterprise cooperation models, and further strengthened resource integration and platform construction. In summary, the key practices of this program lie in: setting clear objectives, integrating resources, reforming teaching, deepening cooperation, and strengthening monitoring. These practices collectively constitute the core support of the talent cultivation program, providing students with a comprehensive, systematic, and efficient learning and development environment. This offers valuable references for talent cultivation in electronics and information majors in higher vocational colleges.

References

- [1] Liu Lihua, Shen Shuxin. Research and Practice on Talent Cultivation Strategies in Chinese Universities under the Background of Globalization [J] (in chinese). Shandong Social Sciences, 2013(2): 189-192. DOI: 10.3969/j.issn.1003-4145.2013.02.035.
- [2] Yang Dong, Zhang Yuting, Hu Dengfeng. Research on the Path of Digital Economy Empowering High-Quality Development: Based on the Configuration Analysis of Central Cities in the Yangtze River Delta Integration [J]. East China Economic Management, 2021, 35(10): 39-47. DOI: 10.19629/j.cnki.34-1014/f.210516004.
- [3] Shi Bo. Mechanisms and Paths for the Digital Economy to Promote High-Quality Urban Economic Development [J]. Journal of Xi'an University of Finance and Economics, 2020, 33(2): 10-14. DOI: 10.3969/j.issn.1672-2817.2020.02.002.
- [4] Chen Nan, Li Qingjuan. Breaking Down Mobility Barriers to Promote the Integration of the Talent Market in the Yangtze River Delta. Qunzhong (The Masses), Issue 18, 2019.
- [5] Hua Zihan, Han Feng. Analysis of High-Quality Development in the Yangtze River Delta Based on the Regional Integration Strategy. Investment & Entrepreneurship, Issue 19, 2021.
- [6] Yuan Ruixin. A Case Study on the Effective Connection of Core Courses between Secondary and Higher Vocational Education. Guizhou Normal University, 2018.
- [7] Chen Qingwen. A Study on the Curriculum Connection between Secondary Vocational Education and Applied Undergraduate Education in Jiangsu Province under the "3+4" Model. Southeast University, 2018.