



Research on the Construction of Modern Industrial College for "Smart Policing +" Talent Training in Public Security Colleges

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Abstract. To address the mismatch between the talent cultivation of police colleges and universities and the practical needs of public security agencies, police colleges and universities should actively collaborate with public security agencies, enterprises, and other parties to jointly build modern industrial colleges. We need to clarify the positioning of talent cultivation goals in modern industrial colleges, together with sorting out the rights and interests of various entities, constructing a reasonable organizational system, designing scientific training mechanisms, curriculum systems, teaching designs, and teaching teams. Through the distinctive modern industrial colleges of police colleges and universities, we can cultivate "smart policing" talents who understand both public security business and new-generation information technology.

Keywords: police colleges and universities; modern industrial colleges; smart policing; talent cultivation.

1 Introduction

Public security education is not only an important part of public security work, but also an essential part of national education, which undertakes the heavy responsibility of training and conveying high-level public security professionals for public security organs. In recent years, in the public security education, the update and iteration of knowledge system tends to be slow together with the phenomenon of education homogenization, which is out of step with the public security organs' demand for talents. After public security major student are employed, they need to learn a lot of technical knowledge and practical skills in their jobs to gradually meet the needs of their lobs.

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L. Chang et al. (eds.), *Proceedings of the 2024 8th International Seminar on Education, Management and Social Sciences (ISEMSS 2024)*, Advances in Social Science, Education and Humanities Research 867,

https://doi.org/10.2991/978-2-38476-297-2_51

In 2020, the Ministry of Education, “the Ministry of Industry and Information Technology issued the Guide to the Construction of Modern Industry College” which provided policy support for the construction of modern Industry College at the national level, pointed out the development direction and put forward specific requirements: "After about four years, the urgent need for regional industrial development will be used as a guide. For colleges and universities with distinct industry characteristics and close links with industry, the focus is on application-oriented colleges and universities, and the construction of a number of modern industrial colleges." Public colleges, as application-oriented institutions of higher learning with distinctive industry characteristics, should speed up the construction of modern industrial colleges with public security characteristics, so as to promote the comprehensive and in-depth integration with the public security industry and improve the practical work ability of serving the public security.

2 Summary of the Development and Construction of Modern Industrial College

2.1 Overview of the Development of Modern Industrial Colleges at Home and Abroad

Many countries around the world have done a lot of theoretical research and practical exploration on the integration of industry and education, among which the teaching factory model in Singapore, the enterprise university model in Japan and the dual system model in Germany are the most representative [1-3].

Domestic research on modern industry colleges originated in 1988, when Qin Xiaohang proposed to establish modern industry colleges in sugar, mining, planting and other industries to improve the quality and well-target of continuing education in local light industry and agriculture in Guangxi [4]. Zheng Rongyi et al. [5] analyzed the organizational characteristics of modern industrial College from the aspects of construction background, property right structure, service function and governance system, etc., proposing the construction strategy of building college by industrial chain and integrating college and industrial garden, constructing a governance system of multiple coordination, co-construction and co-governance, and designing an education mode of combining on-job in park and education integrated with training. Ye Yaohui [6] et al. collected documents related to the construction of modern industrial colleges issued by 16 provinces and cities from July 2018 to April 2023, and summarized the similarities and differences of local practices from the overall requirements, implementation paths and safeguard measures of construction.

2.2 The Current Status of Modern Industry Academies in Public Security Institutions

Public security colleges and universities have also done a lot of theoretical research and practical exploration in the integration of production and education, school-bureau and

enterprise cooperation. For example, Shandong Police College^[7] systematically studied the development context and related achievements of cooperation between police colleges and universities and bureaus. Guangxi Police College is the only public security college that has formally established a modern industrial college and carried out the integration of production and education in an all-round way. Guangxi Police College established the College of Public Security Big Data Modern Industry in 2021 and was approved as a demonstration college of Modern industry in Guangxi general undergraduate universities^[8], opening a new chapter in the construction of modern industry colleges in public security colleges.

3 The Construction of Modern Industrial College of Public Security Colleges

3.1 Talent Training Orientation of Modern Industrial College

When constructing a modern industrial college within public security colleges and universities, the goal of talent cultivation is clear: to train talents that accurately meet the actual needs of public security.

Specifically, there are two approaches to training talents in accordance with the specific needs of public security. The first one involves training talents based on specialized areas within the police force, such as investigation, public security, and traffic management. This approach mirrors the division of disciplines and specialties in public security colleges. While it allows for more precise talent training tailored to the demands of specific branches within the police force, it also results in a narrower knowledge structure for trained individuals. As a result, graduates may not be fully aligned with their assigned roles within the public security organs due to limitations in selection and employment mechanisms. Additionally, this approach may lead to resource wastage through overlap with secondary colleges established by public security institutions.

The second one focuses on cultivating versatile talents equipped to address the challenges posed by new information technologies impacting public security work. Each branch of the public security organs requires individuals capable of leveraging these technologies effectively to carry out tasks and solve problems. In response to this demand, universities should prioritize "smart" + "policing" talent development that emphasizes mastery of new technology usage and its integration into various policing services. In comparison with the first approach, while precision in talent training may be slightly compromised under the second approach, this can be mitigated through subdivision of course directions or modules when designing curriculum systems.

3.2 Construction of Organizational System of Modern Industrial College

3.2.1 Analysis of the Positioning and Cooperation Benefits of Participants.

The construction of modern industrial colleges essentially involves resource allocation, interest distribution, as well as power dynamics among all participants; it encompasses a complex interplay of goals and interests among each party involved. The objective of law enforcement agencies is to address operational requirements; public security colleges aim to enhance personnel training quality; while enterprises strive for economic benefits. Consequently, when establishing modern industrial colleges within public security institutions, it is imperative to first resolve issues pertaining to interest distribution among participating entities by constructing an organizational system that fosters a "trinity with shared interests". Under this framework, law enforcement agencies assume the demand side position by providing talent needs as well as addressing actual operational requirements within public security domains.

The public security colleges play a crucial role in bridging and connecting, on one hand, by aligning with the needs of public security organs to comprehensively and deeply understand talent requirements and actual combat needs. On the other hand, they collaborate with enterprises to provide talent training and design solutions tailored for practical combat scenarios.

Public security colleges aim to establish modern industrial colleges, which will primarily benefit by enhancing the quality of personnel training through application-oriented and compound talent development. This will address the issue of disconnection between teaching and practical applications, thereby improving education standards. Secondly, it will improve teachers' abilities by enabling them to collaborate with public security agencies and technology enterprises in frontline operations to understand actual needs and learn about new technical knowledge. Thirdly, constructing an industrial college would inject more funds, equipment, and resources into public security colleges. Fourthly, cooperation would enable public security colleges to focus on scientific research direction while carrying out educational reforms.

Public security agencies participating in the construction of modern industrial colleges for public security institutions would mainly benefit from solving difficult work requirements that they cannot independently handle through collaboration. Secondly, they can participate in personnel training at these institutions to prepare future employees who can immediately carry out independent work upon graduation while becoming effective combatants for public safety organizations. Thirdly, internships for students during summer or winter vacations could help to solve the problem of phased police tension. For example, summer vacation is the peak of police annual leave, winter vacation is the peak of security activities such as large-scale conference activities, banning fireworks and firecrackers, and maintaining stability in scenic spots. Internships during summer and winter vacations can make up for the gap in police resources at this stage. Fourth, public security colleges can undertake on-the-job police continuing education and capacity improvement training for public security organs, especially the training of cutting-edge technical personnel.

The benefits of enterprises participating in the construction of modern industry college of public security colleges are mainly reflected in: first, establish a good social

image of enterprises through cooperation; The second is to establish direct and in-depth contact with the public security organs through the public security colleges and universities, to obtain the good impression and trust of the public security organs, so as to obtain the orders of the public security organs; Third, through cooperation with public security organs, deepen the understanding of public security work needs, optimize their own products, and develop products urgently needed by public security organs; Fourth, through cooperation with public security colleges and universities, improve their own research and development level, and promote their own scientific and technological innovation and technological upgrading; Fifth, through cooperation with public security colleges and universities, public security students can be familiar with the products and advantages of their own enterprises during the school period, and develop potential users in the future; Sixth, through cooperation with public security colleges and universities, we recruit some outstanding graduates, who are not only familiar with the needs of public security work, but also have certain public security network resources.

3.2.2 Organization System Structure.

According to the resource advantages and interest demands of each participant, the organization system of Modern Industry College of Public security University should be the president's office and its branches under the leadership of the General branch of the Party. First of all, the public security colleges are part of the public security organs, so we must firmly grasp the fundamental political attribute of "public security surname Party". Modern Industry College set up a general party branch, through the party and government joint meeting to discuss major events and decisions, the general Party branch secretary, appointed by the public security organs, in charge of ideological and political, organizational team, moral education and other aspects of construction. The president's office is responsible for the system, and one president is assigned by the public security college to supervise the administration and business affairs of the college; There are three vice presidents, appointed by public security organs, public security colleges and enterprises respectively. It consists of four branches: talent training Center, industry service center, student management center and comprehensive management Center.

3.3 Talent Training Methods and Mechanisms of Modern Industrial College

3.3.1 Construction of Talent Training Mechanism.

Modern Industry College can adopt a talent training mechanism that combines both conventional majors and micro-majors.

Firstly, conventional majors should maintain their existing professional knowledge systems without alteration while emphasizing systematic and comprehensive knowledge impartation. Optional course learning time should be moderately reduced and compressed so as to allocate it towards micro-major studies.

Secondly, a "Smart Policing+" micro-major program should be established which designs a miniaturized, personalized curriculum system centered around research directions related to new generation information technology—particularly its practical

applications within public security combat scenarios. Following principles of active encouragement and voluntary participation, students will undergo specialized training aimed at enhancing alignment between professional education for public security personnel and actual industry requirements.

Finally, around the theme of "smart policing +", it integrates academic lectures, community activities, innovation and entrepreneurship, internship and other personnel training links to create a "smart policing +" whole-chain talent training mechanism

3.3.2 Curriculum System Construction.

To construct the curriculum system, we should adhere to the following principles: First, the integration of German and technology. The curriculum design should adhere to the fundamental political attribute of "cultivating loyal guards of the Party and the people" and establish the main position of education morality, design a themed ideological and political case base, and deeply integrate with the curriculum content;

The second is the cutting-edge content. On the one hand, the public security practical needs and cases selected should not only be new in time, but also represent the latest development trend of public security work; on the other hand, the academic theories and applied technologies selected should be new to ensure that the latest knowledge and technology are used to solve the needs;

The third is the cohesion of learning and application, the selection of needs and cases should form an organic combination with the professional theoretical knowledge of public security, into a system, into a system, can not be simply and brutally stacked, we should not only pay attention to the cultivation of professional knowledge and technical application ability, but also pay attention to the cultivation of collaborative ability and multidisciplinary integration ability.

The designed curriculum system includes 8 courses, each of which has 2 class hours, divided into the new generation of information technology courses and technology application courses, of which 4 are the new generation of information technology courses, which mainly explain the basic principles and knowledge of the new generation of information technology, including big data, artificial intelligence, Internet of things, cloud computing and other aspects. There are 4 technical application courses, which mainly explain the application of the new generation of information technology in the business direction of public security, such as emergency, attack, management and service.

Classes begin in the sophomore year, with two courses offered per semester and four semesters to complete the study. The first two semesters offer new generation information technology courses, and the second two semesters offer information technology application courses. In order to improve the real-time and flexibility of the course content, all courses adopt modular and project-based design according to knowledge points, and adjust the course content at any time according to the changes in the practical needs of public security and the development of information technology.

3.3.3 Teaching Design.

The experience of many years of personnel training in public security colleges and universities and countless examples of students' success prove that talent, interest and diligence are important internal reasons for success. In order to take into account the universality of education and the accurate selection of outstanding talents, so as to teach students according to their aptitude, the classroom teaching, academic lectures, community activities, internship and other teaching links are organically combined, and the whole chain linkage and integrated teaching system of "interest guidance, link linkage and ability stratification" is created.

First, design the academic lecture system. Break the traditional academic lecture only focus on the academic frontier, do not pay attention to the content of the situation. Around the theme of "smart policing", in accordance with the progressive principle from easy to difficult, the design of public security practical needs, practical needs solutions, solution technology principles of 3 levels of academic lectures.

Secondly, the teaching of 8 courses is conducted in the classroom to ensure a comprehensive and systematic understanding of the theory behind "intelligent policing". Given that students voluntarily enroll in modern Industrial College, there exists significant disparity in their knowledge base and structure, leading to a division between those who have insufficient knowledge and those who are unable to grasp the material. The primary objective of these 8 courses is to cater to the learning progress of the majority of students.

Thirdly, exceptional students who lack sufficient resources but possess strong foundations and abilities are selected from course teachings for further development through student association connections. These associations focus on topics related to "smart policing", such as network attack and defense, electronic forensics, artificial intelligence, mathematical modeling, etc. Students can freely choose based on their interests and utilize their spare time for advanced technology application studies. Simultaneously, under the guidance of student associations, students actively participate in various innovation competitions, skills competitions as well as special public security work with an aim to substitute learning with competition while practicing for better comprehension - fostering an interactive integration among competition practice and learning.

3.3.4 Establishment of Talent Training Team.

A personnel training team shall be formed by teachers from public security colleges, police officers from public security organs, and engineers from technical enterprises to collectively engage in teaching and scientific research activities. In terms of teaching, the team members collaborate on course instruction, deliver academic lectures, and provide guidance for student associations. The theoretical aspect is primarily handled by the teachers, while the practical aspect is mainly undertaken by the police officers, and the technical aspect is predominantly managed by the engineers. Concurrently with their teaching responsibilities, enhanced communication among these three types of instructors fosters mutual learning and evaluation. Regarding scientific research endeavors, team members collaboratively undertake research projects and contribute to academic paper writing efforts.

4 Summary

The College of Modern Industry strives to address the structural imbalance between supply and demand for public security talents while precisely cultivating individuals who meet actual requirements within this field. This paper explores talent training orientation, organizational system construction, as well as approaches and mechanisms employed in talent development at Modern Industry College of Public Security College; it also presents some thoughts on these matters. Both theoretically and practically speaking, this represents a beneficial endeavor towards advancing modern industrial college construction within Chinese universities that will undoubtedly propel production-education integration to a new height.

Acknowledgment

This paper is one of phased research results of the Ministry of Public Security's Public Security Theory and Soft Science Project "Research on the Application Evaluation System of Policing Informatization and Big Data Intellectualization Construction" (project number: 2022LL27) and the Key Project of Undergraduate Teaching Reform Research in Shandong Province "Research on the Training Model of Intelligent Governance Talents" (project number: Z2023060) and Shandong Police Academy's "New Public Security Science" Teaching and Research Project "Research on the Construction of Data Police Micro major Based on Modern Industry College"(project number: XGK2023(1)) and Shandong Higher Education Association Higher Education Research Project "Strategies for Improving the major Level of Undergraduate Universities in Shandong Province under the Background of High Quality Development"(project number: 202202) and the Social Science Planning and Research Project of Shandong Province "Research on Flexible Adaptive Reengineering of Government Processes from the Perspective of Data Collaborative Governance" (project number: 23CSDJ40).

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