

Exploration and Practice of Curriculum Ideological and Political System Construction under the Background of National Overall Security Concept

Lingmi Wu¹, Wei Zheng^{2*}

{wlm19910801@163.com¹, 20016263@zjst.edu.cn^{2*}}

Zhejiang College of Security Technology, Wenzhou 325016, Zhejiang, China

Abstract: Contrapose the problems of separate management, limited ideological and political resources and insufficient development efforts of curriculum ideological and political construction of higher vocational colleges, this paper took the courses within the intelligent manufacturing high-end equipment operation and maintenance specialty group as an example, under the background of the national overall security concept, explored ideological and political education elements of technological security, social security, ecological security, economic security and cultural security to constructs an ideological and political resource library, enable online and offline activities, in-class and extracurricular teaching and create demonstration courses of ideological and political education in specialty group. This paper explores the curriculum ideological and political system construction of specialty group, effectively improves the construction of ideological and political resources and the effectiveness of ideological and political teaching in the curriculum, which has important application value in the curriculum construction within specialty group.

Keywords: Curriculum ideological and political education, Security education, Specialty group curriculum, Resource library

1 Introduction

Curriculum ideological and political education is a systematic project that integrates ideological and political education elements into professional courses in an imperceptible manner in classroom teaching, comprehensively enhancing curriculum construction quality[1]. It should not be limited to a certain course, but should be integrated into the construction of the curriculum system in the construction of specialty groups. In the process of curriculum construction, ideological and political education should be given priority and organically combined with the major. Curriculum ideological and political education is not about modifying professional courses into ideological and political courses, but rather fully utilizing the moral education function of the curriculum, utilizing the disciplinary thinking of moral education, refining the cultural genes and value paradigms contained in professional courses, transforming them into

¹ WU Lingmi (1991-): Graduated as an engineer in France, college lecturer rank technical expert, main research direction in higher education modernization.

^{2*} ZHENG Wei (1979-): Corresponding author, PhD, college professor, branch college dean, main research direction in higher education modernization.

concrete and vivid teaching carriers that organically combine moral education and majors, and integrating unconsciously spiritual guidance from the perspective of ideals and beliefs into knowledge learning. This research took the national overall security concept as the background and took the intelligent manufacturing high-end equipment operation and maintenance specialty group of Zhejiang College of Security Technology as the research object. This paper analyzes the necessity of constructing a curriculum ideological and political system, explores effective paths for exploring curriculum ideological and political elements and constructing resource libraries to build a curriculum ideological and political system in order to enhance its application value in specialty group construction and talent cultivation.

2 Necessity of Curriculum Ideological and Political System Construction

At present, these phenomena are common in the curriculum construction in higher vocational colleges, like individual management, repetitive content, limited to a single course, single source of ideological and political resources and insufficient development efforts, resulting in poor implementation effectiveness of ideological and political education. Constructing a curriculum ideological and political system based on specialty groups and extending to the integration of industry into education is a positive response of vocational ideological and political education to the new requirements of vocational education. The construction of the curriculum ideological and political system of specialty group will revolve around the core of comprehensively strengthening talent cultivation. The curriculum ideological and political education materials for specialty group will be organized into a resource library, and the core values of society and Chinese excellent traditional culture will be disseminated from different levels such as national, social, professional and daily life. This will create an emotional resonance, concept exchange, responsibility sharing and literacy strengthening atmosphere for specialty group curricula, and enhance the adaptability of vocational education.

3 Construction of Curriculum Ideological and Political System

3.1 Construction Planning of Ideological and Political Demonstration Courses

According to the necessity analysis of the curriculum ideological and political system construction, the innovative proposition came up, i.e., the curriculum ideological and political system construction under the background of the national overall security concept. For the courses and projects currently being implemented, multiple teaching seminars have been organized to fully utilize the opportunities of ideological and political teaching reform in professional courses at the level of college, specialty, group and course, search for entry points for curriculum ideological and political education in specialty group, select typical ideological and political education elements with security protection or intelligent manufacturing characteristics from the perspective of technological security, social security, ecological security, economic security, cultural security and other aspects, enrich curriculum ideological and political materials, establish a sharing and updating mechanism, as shown in **Table 1**. The final goal is creating several ideological and political demonstration courses with specialty group characteristics, which radiate other courses within the specialty group to accelerate the reform

of curriculum ideological and political education in teaching construction, operation and management.

Table 1. Currently Implementing Ideological and Political Education Project/Course

No.	Course/Project	Ideological and Political Point	Platform
1	Intelligent Security College Curriculum Ideological and Political Teaching Competition	Organization curriculum ideological and political teaching competition	College
2	Comprehensive Training of Building Intelligence	Correctly understanding of social security relying on practical training	Specialty
3	Security Industry Solutions	Importance of personal information security	Course
4	Introduction to drones and drone laws and regulations	Ecological security and resource security in drone surveying and mapping	Course
5	Introduction to Industrial Robots	Technological security issues brought about by the widespread application of robots	Group
6	Principles of drone flight	Civil drone flight safety and social security	Course

3.2 Procedure of Exploring Curriculum Ideological and Political Education Elements

Curriculum ideological and political education elements for the currently implementing courses and projects need to be explored from four aspects: integration of industry and education [2], specialty group, course teaching, internship and practice. Firstly, guided by the demand for post talents, professional courses need continuous integration of national, industry and enterprise standards, laws and regulations and post norms to cultivate students' professional literacy; Secondly, starting from the talent cultivation plan in the specialty group, combined with the overall national security concept, the overall design of curriculum ideological and political education is carried out with technological security, social security, ecological security, economic security and cultural security as the construction dimensions, see **Fig. 1.**; Thirdly, taking the curriculum standards as the outline and combining the knowledge points of the courses, various inspirational human, scientific stories and professional literature need to be collected extensively and integrated into curriculum teaching; Finally, curriculum ideological and political education cases are usually from the internship and practice, production practice cases and industry craftsman stories [3] are closely linked to the project objectives and practical operation standards.

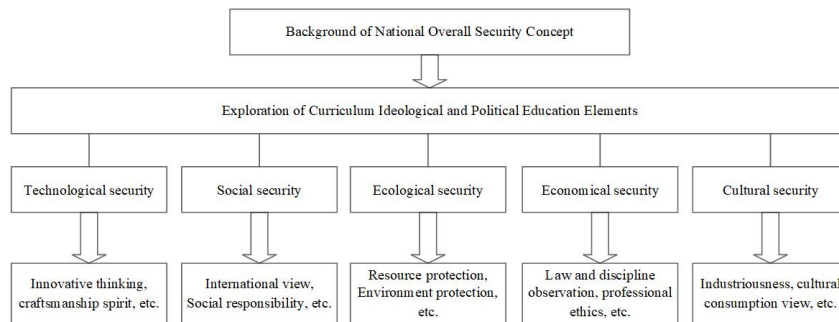


Fig. 1. Exploration of Curriculum Ideological and Political Education Elements

3.3 Management of Curriculum Ideological and Political System

The management of the ideological and political system of specialty group courses mainly includes three aspects: industry level, element level and mechanism level. Details are as follows:

At the industry level: Combining industry transformation and upgrading, ideological and political education cases need to be collected that meet the needs of industry development, such as the Made in China 2025 initiative, artificial intelligence, new energy, etc. Based on the talent demand of the market, ideological and political education elements need to be explored from the aspects of technology, policy, professional knowledge and legislation to satisfy the demand for intelligent manufacturing.

At the element level: Firstly, it is obligatory to resolve excess elements, avoid content duplication, classify in an orderly manner, keep up with current event and eliminate outdated cases. Secondly, it is essential to make some structural adjustment for the resource library, combine the national overall security concept and the background of intelligent manufacturing, select cases with strong universality and typicality for unified development, use various forms such as texts, images, videos, etc., grasp the psychological development dynamics of students, understand their professional needs and achieve individualized teaching to serve innovation and entrepreneurship. Finally, it is important to pay attention to international current events and industry development trends in order to keep adding new ones at any time.

At the mechanism level: In terms of personnel allocation, the management of the curriculum ideological and political system is led by the main lecturer and members of the curriculum construction team, assisted by ideological and political course teachers. External experts and professionals from various industries are invited to participate in the co-construction of the curriculum ideological and political resources library. In terms of classification management, ideological and political education elements are named uniformly, formatted in a standardized manner, stored as texts, images and videos and classified for retrieval to facilitate extraction. In terms of update mechanism, 10% to 20% of resource updates need to be achieved every academic year.

3.4 Curriculum Ideological and Political Education Implementation

The practice of curriculum ideological and political education implementation is mainly summarized as “Three Integration, Three Entries, and Three Classes”.

“Three Integration”: Emotion, craftsmanship and regional culture are integrated into specialty group courses to cultivate students’ sense of patriotism and sense of social responsibility, promote the integration of craftsmanship into students’ professional literacy cultivation and facilitate the integration of regional culture into students’ personal cultivation from aspect of national development strategy, regional development responsibilities, regional industrial talent needs, industry development trends and corporate development needs.

“Three Entries”: Entering into the curriculum system, curriculum standards and teaching content. Starting from the national overall security concept, the curriculum ideological and political education goals are included in curriculum standards for basic courses, professional courses and public courses to advocate implementing unconsciously in daily teaching process by integrating ideological and political education elements into specific curriculum contents to build a full-process, comprehensive and all-media education carrier.

“Three Classes”: Online and offline classes, classes inside and outside of school, classes in forms of knowledge and action. Through regular offline class, online curriculum platform resource sharing, online industry expert lectures and student self-learning experience reporting and exchange, online and offline comprehensive talent cultivation can be achieved completely; Teaching by main lecturers, curriculum construction team teachers, ideological and political course teachers, industry and enterprise experts, collaborative education is implemented inside and outside school; In forms of theoretical courses, practical training courses, cognitive internships, enterprise training, lectures and enterprise visits, the ideological and political education is practiced to follow the principle of “unity of knowledge and action” [4].

4 Effectiveness Evaluation of the Construction of Curriculum Ideological and Political System

4.1 Achievements of Resource Library Construction

The specialty group course construction team conducted actively demand research, information collection and implementation improvement and explored ideological and political education elements: 38 elements of technological security, 36 elements of social security, 25 elements of ecological security, 31 elements of economic security and 43 elements of cultural security, which experienced growth of 72.7%, 50.0%, 47.1%, 72.2% and 53.6% compared to the initial construction stage, see **Fig. 2A**. According to different resource forms, text resources, image resources and video resources has respectively rose by 59.3%, 59.0% and 58.1%, see **Fig. 2B**.

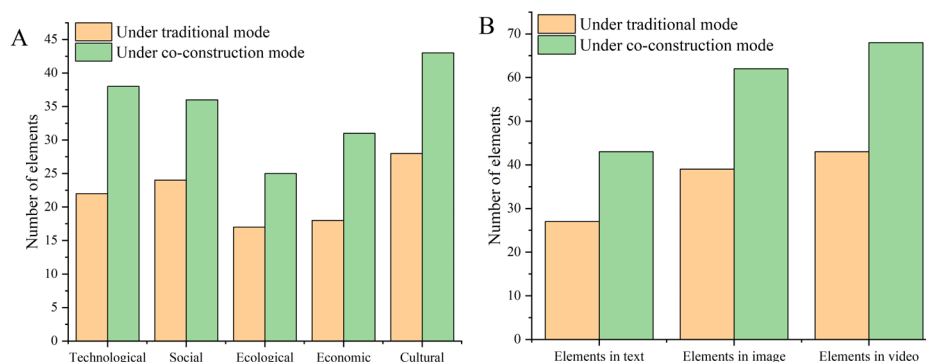


Fig. 2. Resource library construction achievement

4.2 Achievements in teacher ability enhance

On the basis of co-building curriculum ideological and political education resource library within the specialty group, curriculum construction team teachers share the difficulties, experiences and achievements in the process of curriculum ideological and political system construction are discussed and shared with other teachers in their colleges by polishing classes, observing classes and attending theme salons. The ideological and political education content is continuously supplemented and optimized. The teacher ability improvement has been evaluated through the questionnaire survey. The survey results indicate that under the co-construction

mode of curriculum ideological and political education resources, teachers' participation and recognition, as well as the proportion of resource update timeliness and adaption to talent cultivation needs, are all higher than that of the traditional mode. The Chi Square [5] test shows that the differences are statistically significant ($\chi^2=19.573$, $P<0.01$, as shown in **Table 2**).

Table 2. Comparison of the two modes from teachers' ability enhance perspective

Curriculum construction mode	Teachers' participation	Recognition	Resource updates timeliness	Adaption to talent cultivation needs	Total
Traditional mode	11(19.07)	30(25.30)	37(50.61)	89(72.02)	167
co-construction mode	38(29.93)	35(39.70)	93(79.39)	96(112.98)	262
Total	49	65	130	185	429
χ^2			19.573		
P			0.00021		

4.3 Achievements in student ability enhance

In daily teaching and competition guidance, ideological and political education requires the participation of all-staff, in full process and all round, ideological value guide needs to be throughout the entire education process and environment. Close communication is maintained with students, regular surveys are conducted to follow up the curriculum ideological and political education quality to adjust the content and presentation of ideological and political resources according to students' interests and feedback results. The survey results indicate that the participation, recognition, self-worth orientation and civilized behavior scores of students under the co-construction mode of curriculum ideological and political education resources are higher than those under the traditional mode. The Chi Square test shows that the differences are statistically significant ($\chi^2=11.511$, $P<0.01$, as shown in **Table 3**).

Table 3. Comparison of the two modes from students' ability enhance perspective

Curriculum construction mode	Students' participation	Recognition	Student self-worth orientation score	Student civilized behavior scores	Total
Traditional mode	37(50.25)	67(63.92)	55(59.09)	83(68.74)	242
Co-construction mode	88(74.75)	92(95.08)	92(87.91)	88(102.26)	360
Total	125	159	147	171	602
χ^2			11.511		
P			0.00926		

5 Conclusions

Based on the background of national overall security concept, taking the intelligent manufacturing high-end equipment operation and maintenance specialty group of Zhejiang College of Security Technology as the research object, the construction of the curriculum ideological and political system is being carried out by exploring ideological and political elements, selecting typical education elements with security protection or intelligent manufacturing characteristics to be implemented and evaluated in the daily teaching process and create several ideological and political demonstration courses in specialty groups. The research results show that it has effectively improved the innovation and quality of curriculum ideological and political education resources, and has won unanimous acceptance among teachers and students. However, this paper involves a part of courses within specialty group courses and the phased outcomes are not outstanding enough. The curriculum ideological and political system construction team is going to continue to improve their moral literacy, complete and update the resource library, participate more actively into the curriculum ideological and political education and accelerate the quality increase of ideological and political teaching to cultivate more full-developed talents for industry, society, country and the world.

Acknowledgments. The authors thank Zhejiang Provincial Education Department for the support of Grant number [SKCSZ202207] "Research on Curriculum Ideological and Political System of Intelligent Manufacturing High-end Equipment Operation and Maintenance Specialty Group --Three Integration, Three Entries and Three Classes" monitored by Zhejiang College of Security Technology.

References

- [1] Sun, Yifei, and Huilin Zheng. "Research on Improving the Accuracy of Ideological and Political Education in Colleges under Artificial Intelligence Technology in the Era of Big Data." *Mobile Information Systems* 2022 (2022).
- [2] Tondeur, Jo, et al. "Preparing pre-service teachers to integrate technology in education: A synthesis of qualitative evidence." *Computers & Education* 59.1 (2012): 134-144.
- [3] Jin, Sike, et al. "An innovation in craftsman-like talents development mode based on intelligent manufacturing specialty group construction." 2021 9th International Conference on Information and Education Technology (ICIET). IEEE, 2021.
- [4] Lederman, Harvey. "The Introspective Model of Genuine Knowledge in Wang Yangming." *Philosophical Review* 131.2 (2022): 169-213.
- [5] Aslam, Muhammad. "Chi-square test under indeterminacy: an application using pulse count data." *BMC Medical Research Methodology* 21 (2021): 1-5.