

In the Context of Industry-Education Integration, the Collaborative Cultivation of Higher Vocational College Students' Professionalism and Ideological and Political Education

Xiaoyi Yang*, Mingjuan Wang, Jing Peng, Yi Zhou, Haiyan Yu, Chang Li

Sichuan Vocational and Technical College, Suining, 629000, China

*Corresponding author: lilyyang8115@163.com

Abstract: *The integration of industry and education has changed the original relationship between knowledge production, skill transmission and value education in higher vocational education, and thus new demands have arisen for the integration of professionalism and ideological and political education. This paper will examine the problem of joint cultivation of the two. It presents the general links and reasons for cooperation among them in theory. It has laid the foundation for goal embedding and integrated the structures of content and subject collaboration. Research on the Integration Path of Curriculum Carriers through the Cross-penetration of Curriculum Carriers, Implicit Indoctrination of Cultural Carriers, and Institutional Guarantees for Management Carriers. It has a good environment for joint development, is very flexible, and supports all kinds of supervision. Research has found that there is an inherent connection between professionalism and ideological and political education. The cooperation of the two requires the integration of content and goals, as well as coordination of teaching. Work is done by organising the activities of all the carriers. It is the general form of mutual support and dynamic adjustment among all links in the system at the ecological level, and through multi-dimensional inspection, a closed-loop mechanism of continuous improvement is promoted.*

Keywords: *Industry-Education Integration; Professionalism; Ideological and Political Education; Collaborative Cultivation; Education Mechanism*

Introduction

The integration of industry and education has achieved all-round reform of higher vocational education; the educational environment now includes industrial units, the educational content has changed to a multi-agent collaborative network, and the goal of education is to foster all-around comprehensive abilities. For the above reasons, the cultivation of professionalism and ideological and political education have taken different paths in the past; the former has focused on internalising professional norms and acquiring skills, while the latter has addressed value cognition and spirit cultivation. In terms of the essence of education, the cultivation of vocational ability should be guided by values, and these values need to be implemented in daily life through experience in vocational practice; thus, the two functions are in harmony. According to the needs of industry-education integration, the restructuring of educational elements has led to the decentralisation of the education system and full integration. The structure and application path of collaborative cultivation will be organised systematically in the four levels in this paper: theoretical basis, mechanism construction, carrier integration and ecological evaluation.

1. Theoretical Basis and Logical Starting Point of Collaborative Cultivation

1.1 The Transformation Characteristics of Educational Forms from the Perspective of Industry-Education Integration

With a considerable change in the structure of education, industry-education integration is reorganising the basic links of knowledge creation, skill transfer and value education at the level of higher vocational education. Therefore, the educational space is no longer confined to a closed campus but has also spread to many other parts of society. The implementation subjects for educational topics

are changing from one person to a network of many collaborating parties. The Logic of resource allocation in education has begun to move away from a discipline-oriented model and is now in a parallel model that combines competence orientation with literacy orientation. Therefore, vocational education is no longer limited to the old idea of training skills; instead, it has become an all-encompassing concept that integrates education and industry, and also includes learning knowledge and taking on social roles at the same time. The openness of the educational process, the authenticity of the educational environment, and the integration of educational goals are all attributes of this structural change, and they provide a new basis for cultivating the all-round ability of higher vocational students compared with the traditional model of education. With changes in the structure of educational elements and alterations to educational processes resulting from industrial-educational integration, adjustments have been needed in the function and mode of operation of the education system to meet the new demands created by changes in educational forms.

1.2 The Connotative Structure of Professionalism and Ideological and Political Education and Their Correlation

Professionalism should be one of the necessary components in the competence structure for students at higher vocational colleges, and it refers to the three levels of internalisation of professional norms, formation of professional consciousness, and accumulation of professional development abilities. Therefore, it can be seen that the practitioners should have all-round abilities in their areas of work. Ideological and political education aims to create a system of values and beliefs in students and foster a sense of the world. Value guidance and meaning endowment can form a person's world view, affect their perception of life and society, and shape their sense of self. The two have several types of correlation in their connotations. First, in terms of value orientation, a sense of responsibility and the quality of integrity in professionalism are in line with the value goals promoted by ideological and political education. Second, in terms of the composition of content, professional ethics education is the meeting place for the cultivation of professionalism and ideological and political education. Finally, for educational functions, professionalism is concerned with the adaptive development of individuals in the vocational field, and ideological and political education covers the value system for all people as members of society. Therefore, the two will work together to promote the all-round development of the people. The above reason will be used to develop the two parts separately and then combine them later^[1].

1.3 The Value Logic and Normative Orientation of Collaborative Cultivation

The Value Logic of joint cultivation is to improve the efficiency of teaching and learning and make better use of educational resources. In terms of educational effectiveness, the cultivation of professionalism and ideological and political education are closely linked; that is to say, they should be carried out together and jointly, the development of vocational competence needs to be guided by value cognition, and deepening the study of values, in turn, requires their embodiment in real vocational situations. The educational effects of combining the two operations will be much greater than the sum of the effects of carrying them out separately. There are external constraints on high vocational education in terms of the academic cycle and educational resources; collaboration and cultivation can be employed to prevent the scattering of investment and redundant construction of educational resources and improve the overall efficiency of educational input. In accordance with the norm for the direction of joint cultivation, an educational model that integrates professional training with ideological and political education should be built. Thus, students can improve their sense of value in the course of vocational competence education and acquire a sense of their own professional role at the same time through the internalisation of value concepts. Finally, it will achieve the unity of the two identities of a professional and a person of society in the process of cultivation.

2. Mechanism Construction and Element Integration for Collaborative Cultivation

2.1 The Bidirectional Embedding Model of Educational Goals

The bidirectional embedding model of educational goals refers to the close coordination of the cultivation goals for professionalism and the goals of ideological and political education at the level of goal setting. In this model, the goal system of professionalism is given the connotative dimension of value guidance, so the internalisation of professional norms, the formation of professional awareness

and the accumulation of professional development abilities all have the function of value shaping. Therefore, the goal system of ideological and political education is also in line with the demands of the professional dimension, and thus the deepening of value cognition will be manifested in a particular way in the vocational context. Bidirectional embedding is not only the sum of goals but also a goal network with many levels that is supported by the interactive mapping of goal elements. At the basic level of this network, the focus is on integrating professional norms and basic values; at the development stage, it is to strengthen the collaboration of professional ethics and value judgment ability; finally, at the advanced stage, the goal is to unify professional ideals and value pursuits. The embedded goal structure can help the educational activities achieve an organic combination of the two kinds of educational goals from the start, and it will provide a direction for the selection of educational content and the determination of teaching methods later on.

2.2 The Unified Architecture of Educational Content

The entire idea of the integrated architecture for educational content is to break away from the traditional division of the content for professional cultivation and that for ideological and political education, and instead create a system of content that integrates the two and supports each other. The structure is to take professional ethics, the spirit of craftsmanship and professional norms—areas that are both professional and value-laden—as integration points to organically combine competence components in the content of professionalism with value components in ideological and political education. Modularisation and hierarchisation are used together in the Design of the integrated architecture; modularisation is to divide the two types of content into combinable knowledge units and competence units so that they can be flexibly organised according to the characteristics of different professional areas, and hierarchisation is to build a progressive sequence of content from basic cognition to deep assimilation in line with the laws of students' cognitive development. Based on the above integrated structure, the professionalism content will be enriched with values and thus avoid the problem of instrumental rationality; at the same time, the ideological and political education content will be rooted in vocational situations and not be mere abstract preaching. Therefore, the two are an organic whole and work together to create meaning at the level of content.

2.3 The Collaborative Linkage Mechanism of Educational Subjects

The collaborative linkage mechanism of educational subjects is to divide labour and build a cooperative relationship among professional educators and educators of humanities and social sciences to create an integrated educational model with multiple subjects and complementary functions. Professional teachers will carry out the dual task of cultivating vocational ability and leading values in vocational education, and at the same time, promote the assimilation of professional ethics and transmission of professional norms through professional teaching. Teachers of the Humanities and Social Sciences organise a system for the construction of value consciousness and promote the in-depth cultivation of ideological literacy to provide a value foundation for professional development. Regular communication and coordination channels have been set up for the two types of subjects to share information and plan together, so that teaching content is aligned, educational resources are shared and integrated, and the educational process can be promoted in tandem. Collaboration and link-and-span are also known as industrial personnel in the context of industry-education integration; they can offer related educational functions during their participation and thus create synergy among institutional subjects and industrial subjects in terms of educational functions. In this way, all the subjects of study will be integrated, the educational forces will be unified, and a new form of educational governance will be established to jointly promote professional development and ideological and political education^[2].

3. Carrier Integration and Path Optimisation for Collaborative Cultivation

3.1 The Cross-Penetration Design of Curriculum Carriers

Curriculum carriers are the main means of collaborative cultivation, so they should be designed in an integrated way to break through the division between professional courses and general education courses based on educational functions and create a curriculum implementation architecture that organically combines vocational competence training and value education. At the level of curriculum structure, cross-penetration design is achieved by adding content elements that have both professional

attributes and value implications—such as professional ethics, industry norms and professional identity—to the professional course system so that students can learn professional skills and be aware of the values of their professional roles at the same time. At the same time, typical cases of vocational education and values in industrial development are also included in the teaching of general education courses to provide support for the learning of value cognition with authentic vocational fields. According to the actual situation of curriculum implementation at the school level, the cross-penetration Design will be revised. Contextual teaching, project-based learning and other methods are used to integrate professional knowledge with ideological and political education in the same way during teaching. Cross-penetration has led to a new distribution of the curriculum; it is no longer an individual educational material but an integrated educational platform supported by two types of educational content. The process of curriculum implementation is no longer about the one-way transmission of knowledge; now, it is multi-dimensional and runs in tandem with the cultivation of abilities and values.

3.2 The Implicit Educational Function of Cultural Carriers

Cultural carriers can have an indirect educational effect by creating a certain atmosphere and mood, and they can also provide strong support for the development of professionalism and the internalisation of values in collaborative cultivation. With the integration of industry and education, the constituent elements of cultural carriers now include not only the academic traditions, humanistic spirit and behavioural norms in campus culture but also the professional spirit, quality awareness and collaborative concepts of industrial culture. The intersection and integration of the two types of culture in education have formed an environment of compound culture with both educational value and professional orientation. Symbolic Representations, ritual activities and behavioural models are employed to create a cultural environment that indirectly affects students; that is to say, professional culture helps students feel and identify with the values and behavioural norms of a particular profession, and campus culture provides some space for students to explore values and grow spiritually. Therefore, an organised system for the production and use of cultural carriers should be established; educational connotations need to be added to cultural landscapes at the material level, guiding functions for cultural norms should be designed at the institutional level, and cultivation mechanisms for cultural identity must be built at the spiritual level. Therefore, the cultural carriers will achieve the goal of extending the educational influence of formal schooling beyond that institution^[3].

3.3 The Institutional Guarantee and Guiding Function of Management Carriers

Management Carriers should offer institutional Design and operational Mode guarantees, provide standardised and normalised support for collaborative cultivation, etc. At the level of institutional design, the management carriers are the student evaluation system, the teaching management system and the quality supervision system. Organizations have established institutions and reasonable rules to reduce the demand for joint cultivation and make it more practical and verifiable. The Construction Goal of the student evaluation system is to build an all-encompassing evaluation index that covers both the level of development in vocational ability and the degree of deepening in value cognition, and thus is not based solely on the mastery of knowledge or proficiency in skills for assessment. The improvement of the teaching management system aims to provide institutional channels and resource guarantees for the cross-penetration of curricula and the collaborative linkage of subjects, and it will eliminate institutional obstacles to the operation of collaborative cultivation. Continue to collect data in real time on the progress of cooperative cultivation and the results of feedback through the new quality supervision system, build a closed-loop management system for information collection, analysis and diagnosis, and then make corresponding improvements and adjustments. The institutional Design of Management Carriers has promoted the institutionalisation of collaborative cultivation, and now it has been organised in a standard operating mode with continuous institutional guarantees.

4. Ecological Construction and Quality Evaluation of Collaborative Cultivation

4.1 The Ecosystem Architecture of Collaborative Cultivation

The ecosystem architecture of collaborative cultivation is based on the integration of the synergy between professionalism and ideological and political education in a comprehensive and systematic way, and it shows the organic connections and interactions among all the educational elements. The

purpose of this ecosystem is to achieve educational goals, and at the foundation of this are the teaching materials in all subjects at school; supporting these are curricula, culture and management, forming a multi-level and multi-dimensional network of connections. The four parts of the system's composition are the goal subsystem, the content subsystem, the subject subsystem and the carrier subsystem. All the sub-systems will cooperate to share information and resources for the common goal of the whole system. The goal subsystem sets the direction for the other subsystems, the content subsystem provides specific teaching materials, the subject subsystem leads the implementation of teaching activities, and the carrier subsystem offers channels and media for distributing teaching materials. In terms of system operation, the ecosystem is open and dynamic; it can exchange information and resources with the outside world, and based on the feedback information obtained from the operation of the system, it can regulate itself and make adjustments. Based on the ecosystem structure above, collaboration is no longer merely the collection of all parts of education; rather, it is a living, self-regulating system that provides a theoretical foundation for the continuous improvement of educational work^[4].

4.2 The Dynamic Adaptation Mechanism of the Educational Process

The dynamic adaptation mechanism of the educational process is to match the supply of collaborative cultivation with the development needs of students, and it can flexibly and precisely adjust educational strategies according to the individual differences among students and the characteristics of their growth stages. The basis of the above mode is the regular stages of students' development. Students of different grades have considerable differences in the level of their professional cognition, maturity of value concepts and self-management ability, so their focus areas for demand in collaborative cultivation and their modes of acceptance are also different. The lower stage focuses on the basic cognition of professional norms and the establishment of fundamental value orientation, and the educational process is more teacher-led and direct. The middle class will learn to be good people, learn to live together, and gradually develop a sense of justice and fairness through discussion and experience. The purpose of the upper grades is to nurture professional ideals and integrate values; at this time, students should begin to think about their values and build them. The dynamic adaptation mechanism also includes adaptation at the level of individual differences; based on the collection and analysis of student development information, it is possible to identify the various developmental stages of students in terms of professionalism and value cognition and apply differentiated educational intervention strategies. The operation of the adaptation mechanism is based on the continuous flow of information in the feedback channel and the sensitivity of the adjustment mechanism; thus, a virtuous cycle of continuous matching and dynamic adjustment between educational supply and student needs can be established, and cooperation in cultivation will remain highly responsive to changes in the development of educational subjects during implementation^[5].

4.3 Multi-dimensional Evaluation of Collaborative Cultivation Quality

Multifaceted supervision of the quality of collaborative cultivation aims to solve the problem of one-dimensional quality assessment and build an all-encompassing quality evaluation system from all sides and in all aspects. The three dimensions of the quality of collaborative cultivation are as follows: The first is the goal-achievement dimension, which refers to the extent of joint realisation of the cultivation goals for professionalism and ideological and political education. The second is the process-operation dimension, that is to say, it refers to the coordination and effectiveness of all components in the operation stage of collaborative cultivation, such as the extent of cross-penetration of curriculum carriers, the functioning status of the implicit educational function of cultural carriers, the effectiveness of institutional guarantees for management carriers, and the smoothness of subject linkage. The third is the development promotion factor, which refers to the actual promotion effect of collaborative cultivation on all-round development of students; it includes how far the coordinated development of vocational skills and moral character has advanced, how adaptable students are in vocational situations and life, and what kind of sustained development ability has been strengthened. All kinds of inspections are both quantitative and qualitative; that is to say, some can be expressed in measurable data and others are difficult to quantify but are also necessary indications of changes in education. The inspection results are fed back to all links in the cooperative education through a closed-loop feedback mechanism, and based on this, adjustments are made to educational goals, optimisation of content structure, enhancement of carriers and mechanism improvement to form a virtuous cycle of continuous improvement driven by quality inspection^[6].

Conclusion

Systematically study the joint cultivation of professionalism and ideological and political education for students at higher vocational colleges in light of industry-education integration in this paper, and build a general analytical system based on the four levels of theoretical foundation, mechanism construction, carrier integration and ecological evaluation. According to the homology of value orientation, the overlap in content composition and the complementarity of educational functions are shown to have an inherent correlation in this paper. The aim of the cooperative cultivation model is to improve the teaching and learning results and to make full use of all educational resources. The general structure at the level of the mechanism has many parts; goals are set bidirectionally, there is a whole-system arrangement for content, and subjects cooperate. Carrier path and support system at the level of school have been established to promote cross-curricular integration, implicit cultural inheritance and institutional support for management. An ecosystem at the ecological level will have several subsystems, be capable of change dynamically, and can be observed in many ways. In the future, more research will be conducted on all kinds of institutional design, good inspection tools will be developed, and their long-term tracking effects will be verified.

References

- [1] Wang Jianying. *Exploration on the Integration Path of Professionalism Cultivation and Ideological and Political Education for Higher Vocational College Students*. *Way to Success*, no. 25 (2025): 121-124.
- [2] Li Yanzhen. *A Strategic Study on the Integration of Ideological and Political Education into the Career Planning Curriculum System of Higher Vocational College Students*. *Teacher*, no. 29 (2024): 114-116.
- [3] Bi Bo and Wang Lei. *How Ideological and Political Education Integrates with Career Planning for Higher Vocational College Students*. *China's Military-Civilian Conversion*, no. 13 (2024): 121-122.
- [4] Liu Haiyan. *Analysis on the Cultivation Path of Higher Vocational College Students' Professional Values from the Perspective of Ideological and Political Education*. *Reform and Opening*, no. 06 (2023): 53-58.
- [5] Qian Jun. *Integration of Ideological and Political Education and Professionalism Education in Higher Vocational Colleges*. *Teacher*, no. 30 (2021): 13-14.
- [6] Chen Jingjing. *On the Integration of Ideological and Political Education and Professionalism Education in Higher Vocational Colleges*. *Modern Vocational Education*, no. 41 (2021): 110-111.