

The Effectiveness Evaluation and Continuous Improvement Strategies of Digital Transformation of Ideological and Political Education in Sino-Foreign Cooperative Education in Higher Vocational Colleges

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Abstract: With the deepening reform of education, innovation has been increasingly emphasized against the backdrop of technological empowerment and cultural exchange. Particularly, Sino-foreign cooperative education has emerged amid the trend of globalization, focusing on optimizing and improving various aspects of content and form. Through its unique educational model, it promotes the integration, innovation, exchange, and cooperation of international educational resources. Of course, different directions and levels of cooperative education have generated diverse teaching models, laying a solid foundation for the digital transformation of ideological and political education in higher vocational colleges. By leveraging technological empowerment to further expand educational scenarios, teaching content, and practical activities, it holds profound significance for the innovative development of domestic vocational ideological and political education. This paper explores the basic concepts of Sino-foreign cooperative education and digital transformation, evaluates the current effectiveness of the digital transformation of ideological and political education in higher vocational colleges, and proposes practical reform strategies. It aims to address the challenges faced by vocational education in the context of cultural impact and integration, and promote the efficient and high-quality development of vocational ideological and political education through technological empowerment, which is worthy of in-depth exploration and practice.

Keywords: Higher vocational colleges; Sino-foreign cooperative education; Ideological and political education

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1. Introduction

Against the backdrop of globalization, the reform of vocational education has been continuously deepened to address increasingly complex competitive situations and conflicts, as well as to fill the talent gap in emerging professional positions. For Sino-foreign cooperative education, it is necessary to achieve dual goals: focusing on optimizing the allocation of educational resources while cultivating talents with an international perspective and cross-cultural communication capabilities. This aims to realize comprehensive quality education and foster virtue through education, guiding students in cooperative programs to thoroughly study the ideological concepts of the new era and firmly adhere

to the path of socialism with Chinese characteristics. Therefore, optimizing the ideological and political teaching process, evaluating the digital construction of ideological and political education in the past period, identifying problems, and exploring feasible and effective continuous improvement strategies are common tasks for us. Firstly, promote digital ideological and political content, and ensure that cooperative education conforms to China's national conditions and values; secondly, enhance teachers' capabilities and qualities, stimulating their digital literacy and cross-cultural ideological and political teaching abilities; thirdly, form a diversified ideological and political evaluation mechanism system and extend the experience to the evaluation of more disciplines and majors. In this way, reform the ideological and political education model in higher vocational colleges, restructure the content and form of ideological and political teaching, as well as corresponding evaluation mechanisms and teaching staff with the support of Sino-foreign cooperative education, improve the level of ideological and political education, and find a modern and high-quality direction for future education. The following is a specific discussion on the effectiveness evaluation and continuous improvement strategies of the digital transformation of ideological and political education in higher vocational colleges from the perspective of Sino-foreign cooperative education^[1,2].

2. Overview of Sino-foreign cooperative education and digital transformation

As the name suggests, Sino-foreign cooperative education refers to educational and teaching activities carried out through cooperation between domestic and foreign educational institutions. This model actually became popular in the early 1990s and has gradually matured, covering undergraduate, master's and even doctoral levels. Through Sino-foreign cooperative education, it effectively absorbs advanced foreign talents and resources, promotes the integration of local universities with international standards in curriculum design and faculty development, and improves the quality of talent cultivation. With the improvement of relevant regulations and implementation measures, as well as the initiative of education authorities to improve quality and efficiency, Sino-foreign cooperative education has been endowed with new functional value, aiming to cultivate more new-era talents who serve national major strategies and possess global competence^[3].

Digital technology is the core driving force of current vocational education, and the digital and intelligent construction of relevant educational work is imperative. In the new context of Sino-foreign cooperative education, digital transformation involves optimizing and setting up corresponding educational platforms, simulation experiments, intelligent evaluation systems, etc., and further practicing and promoting new models of cross-cultural collaboration and distance teaching. Especially with the increasing convenience of the internet, expectations for Sino-foreign cooperative education have risen to breaking time and space constraints and realizing collaborative education. Therefore, it is imperative to carry out diversified, multi-level and multi-angle digital work. However, attention should be paid to issues such as data security and intellectual property rights brought about by digital transformation, which are challenges that managers and educators of relevant institutions must face^[4,5].

3. Effectiveness evaluation of the digital transformation of ideological and political education in higher vocational colleges from the perspective of sino-foreign cooperative education

Currently, higher vocational colleges are actively promoting the digital transformation of ideological and political education from the perspective of Sino-foreign cooperative education, achieving initial results and reaping substantial gains. On the one hand, relying on big data, artificial intelligence and digital technology, the content and resources of ideological and political courses have been enriched. The classification of micro-courses, short videos, electronic lesson plans, etc., reduces the burden on teachers and provides students with more ways to acquire knowledge. On the other hand, many institutions have built integrated digital teaching platforms to aggregate some high-quality foreign resources, realizing cross-regional

sharing and precise push of teaching resources, and enhancing the effect of ideological and political education. There are many others like this: some institutions have built an integration path of “ideological and political education + major” to promote socialist core values and advanced ideological concepts; some schools have implemented a “dual-track” tutor system, strengthening digital training internally and absorbing outstanding professional talents externally... All these jointly contribute to the innovative reform of Sino-foreign cooperative education and ideological and political education in higher vocational colleges^[6].

However, some new teaching problems inevitably arise: strong foreign dominance in cooperative projects, inconsistency between digital ideological and political content and value orientation, and inadequate and imperfect evaluation mechanisms. These also require teachers to work together to break through and change, striving to achieve better results from the perspective of Sino-foreign cooperative education and paving the way for the success of higher vocational ideological and political education^[7].

Regarding the problem of foreign dominance in cooperative projects and the lack of subjectivity on the Chinese side, it is obvious that this has squeezed the space for the reform and implementation of ideological and political education. Specifically, foreign parties often have greater say in curriculum design, textbook selection, teaching models and even faculty arrangements, and some projects even entrust the design and teaching of professional courses entirely to foreign parties. Our operational mechanism, which is highly dependent on foreign resources, puts us in a passive position and marginalizes ideological and political education. In the process of promoting digital teaching, the online platforms, teaching tools and digital resources provided by foreign parties are mostly based on their own national educational logic and cultural background, lacking compatibility with China's ideology and educational goals. This makes it difficult for Chinese parties to effectively embed ideological and political elements, so digital construction also faces difficulties due to the lack of institutional guarantees and resource support.

Regarding the deviation between digital ideological and political content and value orientation, it is obviously difficult to meet the requirements of national ideology^[8]. Currently, when developing or introducing digital teaching resources, some Sino-foreign cooperative education projects fail to fully consider the political nature and value-leading function of ideological and political education, leading to tendencies such as “de-politicization”, “pan-entertainment” and even “westernization of values” in content presentation. This is likely to cause ideological contradictions among students and lead to the emergence of more and more refined egoists, which is what we are unwilling to see. To cater to students' interests or foreign aesthetic preferences, some digital platforms overemphasize interactivity and fun while weakening ideological depth and avoiding sensitive but key political issues. This is obviously contrary to the mainstream ideology of our country, which is not conducive to the healthy growth and all-round development of students, and makes the transformation and upgrading of digital ideological and political education deviate from the fundamental goal of fostering virtue through education^[9].

The inadequate and imperfect evaluation mechanism restricts the improvement of the quality of digital ideological and political education. Under the framework of Sino-foreign cooperative education, the effectiveness evaluation of ideological and political education has long faced problems such as vague standards, single methods, and a lack of main subjects. On the one hand, the existing evaluation system mostly adopts traditional classroom assessment methods, which are difficult to adapt to the process-oriented, interactive, and data-driven characteristics of digital teaching scenarios. On the other hand, since foreign parties usually do not participate in the design and assessment of ideological and political courses, and Chinese parties are restricted by cooperation clauses or management authority, it is impossible to establish a scientific evaluation mechanism covering the entire process and all dimensions. More seriously, some projects regard ideological and political education as a “soft task”, and digital achievements are neither included in teachers' performance evaluation nor linked to students' comprehensive quality evaluation, leading to insufficient investment, outdated updates and superficial application. The lack of an effective feedback and incentive evaluation mechanism has led to low-level repetition in the construction of digital ideological and political education, making it difficult to achieve connotative development^[10,12].

4. Continuous improvement strategies for the digital transformation of ideological and political education in higher vocational colleges from the perspective of sino-foreign cooperative education

4.1. Jointly guide value orientation and optimize digital ideological and political content

Against the background of education in the new era, cooperative education requires support in various technologies and resources. Especially for Sino-foreign cooperative education, it is necessary to consider the value orientations and spiritual pursuits of different countries. For ideological and political education, it is necessary to clearly balance the dual needs of national ideological security and the cultivation of international talents. When facing resources provided by foreign parties, maintain a sense of rationality and clarity, eliminate and filter some content that is “incompatible with local conditions”, and build an ideological and political content system that reflects both socialist core values with Chinese characteristics and digital empowerment for the integration and dissemination of diverse cultures. Therefore, on the one hand, higher vocational colleges should sort out the curriculum design, teaching cases, and content in Sino-foreign cooperative projects, and organically embed elements such as China’s development achievements, institutional advantages and cultural confidence into digital teaching resources. In particular, highlight traditional Chinese culture, etiquette culture, etc., form characteristic ideological and political themes, intersperse interaction and integrate dynamic and static elements to achieve good educational effects. On the other hand, actively introduce advanced technologies and platforms, carry out teaching through virtual simulation, AI interaction, and multilingual micro-courses, and create ideological and political content modules with cross-cultural interpretation capabilities ^[13]. For example, when teaching the topic of the community with a shared future for mankind, instead of directly explaining what it is, why, and how to achieve it, we can use the United Nations Sustainable Development Goals for comparative interpretation, which effectively cultivates and enhances students’ global perspective while retaining a sense of family and country. On this basis, to ensure that the teaching content meets the needs and reality of local higher vocational college students, a collaborative development mechanism composed of Chinese ideological and political teachers, experts from foreign cooperative institutions, and educational technology teams can be established to ensure the unity of the political nature, academic nature, and communicability of the content. In short, the reform and innovation of higher vocational ideological and political education from the perspective of Sino-foreign cooperative education not only requires the effective use of digital technology, intelligent platforms and resources, but also the accurate grasp of value orientation and spiritual pursuit, the selection of content that meets the current development goals of students, and the construction of corresponding unit modules ^[14].

4.2. Focus on teachers’ digital literacy and enhance cross-cultural ideological and political teaching capabilities

Teachers are the key implementers of the digital transformation of ideological and political education. With their excellent digital literacy and cross-cultural ideological and political teaching capabilities, they can maximize the edification and influence on students and improve their overall quality. Currently, from the perspective of Sino-foreign cooperative education, the essential capabilities and qualities required of ideological and political course teachers are to use modern science and technology, software and technical tools to rethink a series of ideological and political content and form appropriate teaching activities. Therefore, higher vocational colleges must strengthen the training of ideological and political teachers, and even some counselors, faculty and professional course teachers, to simultaneously enhance their digital application, ideological and political teaching and cross-cultural practical capabilities. The specific work is as follows ^[15]:

Firstly, incorporate digital literacy into the compulsory content of teachers’ continuing education to improve their practical ability in using intelligent teaching platforms, virtual reality technology, etc. For some teachers who have no knowledge of or only know how to use simple multimedia and micro-courses, strengthen the popularization and acceptance of digital applications, and then improve their digital application capabilities. Special training should also be carried out in other directions to improve their overall quality through post-service education.

Secondly, organize Sino-foreign joint scientific research activities, encourage teachers from different regions to cooperate fully, and conduct in-depth discussions on topics such as how to carry out the digital transformation of ideological and political education, the connection between ideological and political courses and curriculum-based ideological and political education, and maintaining China's stance in local ideological and political education, so as to fundamentally improve the depth and significance of education.

Thirdly, build digital ideological and political teaching innovation workshops, reasonable activity mechanisms, and evaluation systems. This supports front-line teachers' work, fully delegates power for digital construction, encourages more teachers to participate, and increases their enthusiasm for actively integrating technology and value education, forming a team of teachers with a firm political stance, proficient technology and cultural tolerance, and ensuring the smooth progress of digital and modern vocational ideological and political education^[16].

4.3. Data-driven precise evaluation to grasp students' ideological growth portraits

Traditional ideological and political education evaluation mostly relies on subjective judgment, making it difficult to reflect students' true ideological dynamics. In the process of digital transformation, higher vocational colleges should fully utilize learning behavior data, interactive feedback and emotional analysis technology to build a scientific, dynamic and personalized evaluation system. In view of the diverse student groups and complex values in Sino-foreign cooperative education, intelligent teaching platforms can be used to collect students' participation, viewpoint tendencies and emotional attitudes in online courses, forum discussions and virtual practices to form "ideological growth portraits". For example, natural language processing technology can be used to analyze students' position expressions in discussions on cross-cultural issues, identify potential value deviations or cognitive blind spots, and intervene and guide promptly. At the same time, establish an evaluation model combining "process-oriented + result-oriented" assessment, incorporating classroom performance, digital works and social practice into a comprehensive evaluation to avoid mere emphasis on scores. More importantly, the evaluation results should feed back into teaching improvement, presenting the overall ideological trends of the class through data visualization to help teachers adjust teaching priorities. It also guides students to self-reflect and clarify values through personalized feedback push. This closed-loop evaluation mechanism supported by data helps realize the leap of ideological and political education from "empirical judgment" to "precision governance"^[17].

4.4. Build immersive and interactive ideological and political learning scenarios

Digital technology provides the possibility of immersive experiences beyond time and space for ideological and political education, leading the innovative development of modern ideological and political education and enriching modern vocational education. In the environment of Sino-foreign cooperative education, students are more likely to accept intuitive and interactive learning methods. Therefore, higher vocational colleges should vigorously develop new educational scenarios such as VR/AR red education bases, metaverse ideological and political classrooms, and AI role-playing. For example, a "digital Long March" virtual exhibition hall can be built to allow students to "walk" in historical scenes and feel the revolutionary spirit. Or design a "Belt and Road" international cooperation simulation negotiation platform to guide students to understand China's diplomatic concepts through role-playing. These scenarios not only enhance the interest of learning but also deepen value recognition through situational immersion. At the same time, focus on the integration of online and offline, extending digital scenarios to campus culture, community activities and international exchanges. In particular, actively organize Chinese and foreign students to jointly participate in the "Digital China Story" creation competition, telling China's development through short videos, podcasts and other forms to promote cultural mutual learning. In addition, platform design should take into account multilingual support and cultural sensitivity, avoiding technical showmanship at the expense of ideological depth. Only by effectively integrating technology, content and emotion can digital ideological and political education truly "enter the mind and heart".

4.5. Improve the multi-party collaborative digital ideological and political governance guarantee system

The digital transformation of ideological and political education is a systematic project that requires the joint participation of schools, governments, enterprises, and cooperative foreign parties. Currently, some higher vocational colleges have problems such as scattered resources, inconsistent standards and unclear powers and responsibilities, which restrict the effectiveness of transformation. Therefore, it is necessary to improve the collaborative governance mechanism of “top-level design - middle-level coordination - grass-roots implementation”. Firstly, schools should establish a leading group for digital ideological and political work led by the Party committee to coordinate the ideological and political planning, resource allocation and risk prevention and control in Sino-foreign cooperative education; secondly, actively seek policy support from education authorities to promote the establishment of digital standards and evaluation guidelines for ideological and political education in higher vocational Sino-foreign cooperative projects; thirdly, cooperate with high-quality educational technology enterprises to build safe, controllable digital platforms that meet ideological requirements, avoiding excessive reliance on foreign technology; finally, sign supplementary agreements containing ideological and political education clauses with foreign cooperative institutions to clarify the dominant power of Chinese parties in curriculum design, textbook review and teacher appointment. At the same time, establish a public opinion monitoring and emergency response mechanism to prevent ideological infiltration risks in the digital space. Through institutionalized, standardized and normalized collaborative governance, provide a solid guarantee for the digital transformation of ideological and political education^[18].

5. Conclusion

Based on the above, the reform and digital construction of higher vocational ideological and political teaching from the perspective of Sino-foreign cooperative education must be put on the agenda. In addition to breaking the shackles of traditional educational concepts and models, it is also necessary to persist in exploring various problems in current educational practice and seek new breakthroughs and development opportunities. Through the organic application of digital technology and intelligent systems, build a learning atmosphere suitable for higher vocational college students to think independently, explore autonomously and learn cooperatively, cultivate their digital application capabilities and innovative practical capabilities, and lay a solid foundation for their smooth graduation and employment in the future.

Disclosure statement

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References

- [1] Liu LM, 2024, Research on Cultivating Higher Vocational Students' Foreign Language Digital Narrative Competence from the Perspective of Curriculum-Based Ideological and Political Education: Taking Shantou Polytechnic as an Example. Journal of Guangdong Industry Polytechnic, 23(6): 36–43.
- [2] Hou HF, 2024, Exploration on the Innovative Practice of “Curriculum-Based Ideological and Political Education” in College English under the Background of “Double High-Level” Construction. Lucheng Journal, 36(4): 57–61 + 77.
- [3] Zeng CY, Luo QX, Zhong NS, 2024, Exploration and Practice of Curriculum-Based Ideological and Political Education in Mathematics Courses in Higher Vocational Colleges: Taking “Magic Square” in the Course “Primary School Mathematics Problem-Solving Research” as an Example. Journal of Hubei Open Vocational College, 37(24): 110–112.
- [4] Cao K, Li PZ, Liu JR, 2024, Construction of Curriculum-Based Ideological and Political Education for CNC Machining

Courses Based on Core Competencies: Taking the Course “CAM Technology and Machining Center” as an Example. *Journal of Shijiazhuang Vocational Technology College*, 36(6): 67–71.

[5] Peng M, 2024, Analysis on the Teaching Reform of Social Sports Major in Higher Vocational Colleges from the Perspective of Curriculum-Based Ideological and Political Education: Taking the Course “Fitness Routine Choreography and Guidance” as an Example. *Journal of Shijiazhuang Vocational Technology College*, 36(6): 56–61.

[6] Zhang YY, 2024, Practical Exploration of the “Four-Dimensional Collaborative” Educational Concept in the Construction of Curriculum-Based Ideological and Political Education in Higher Vocational Physical Education Courses. *Sports World*, (12): 108–110 + 116.

[7] Wu L, Pan Y, 2024, Exploration of Curriculum-Based Ideological and Political Education in the Course of Drug Metabolism in the Biotechnology Pharmaceutical (Sino-Foreign Cooperative Education) Major. *Pharmaceutical Education*, 40(6): 43–46.

[8] Zhang Y, Wang YG, 2024, Research and Practice on the Teaching Reform of Ideological and Political Courses in Higher Vocational Colleges under the Background of Digital Transformation. *Journal of Hubei University of Economics (Humanities and Social Sciences Edition)*, 21(9): 153–156.

[9] Xue RY, Chen L, 2024, Dilemmas, Risks and Paths of the Digital Reform of the Teaching Quality Evaluation of Ideological and Political Courses in Higher Vocational Colleges. *Education Science Forum*, (24): 8–12.

[10] Li HJ, Zhou N, Tian N, 2024, Logical Path and Practical Implications of the Teaching Reform and Innovation of Curriculum-Based Ideological and Political Education in Higher Vocational Colleges in the Digital Age. *Journal of Taiyuan Urban Vocational College*, (7): 194–197.

[11] Fang QY, 2024, Reform and Practice of Curriculum-Based Ideological and Political Teaching in Higher Vocational Colleges under the Background of Educational Digitalization: Taking the Course “Foreign Trade Documentary” as an Example. *Journal of Shandong University of Technology and Business*, 24(3): 52–56.

[12] Wang K, 2024, Analysis on the Reform of Bilingual Teaching in Higher Vocational Colleges under the Background of SPOC Blending in the Digital Age: Taking “Principles of Management” (Sino-Foreign Cooperation) as an Example. *Journal of Yantai Vocational College*, 19(1): 67–71.

[13] Duanmu BB, 2023, Research and Practice on Strengthening the Informatization Reform of College English Teaching in Sino-Foreign Cooperative Education under the Background of “Curriculum-Based Ideological and Political Education”. *China New Telecommunications*, 25(23): 218–220.

[14] Feng YH, Zhang YN, 2023, Dilemmas and Countermeasures of Curriculum-Based Ideological and Political Education in Preschool Education Majors of Higher Vocational Colleges under the Background of Educational Digitalization. *China New Telecommunications*, 25(14): 171–173 + 176.

[15] Liu Q, Zhu XM, 2023, Exploration on the Teaching Reform of College English in Sino-Foreign Cooperative Education from the Perspective of Curriculum-Based Ideological and Political Education. *Journal of Jinzhou Medical University (Social Science Edition)*, 21(3): 106–109.

[16] Zhang YM, Zhang JJ, 2023, Practical Research on the Curriculum-Based Ideological and Political Teaching of the Course “Economic Law” under the Background of Sino-Foreign Cooperative Education Projects: Taking the Sino-Foreign Cooperative Education of Yunnan University of Finance and Economics as an Example. *Chinese and Foreign Enterprise Culture*, (3): 217–219.

[17] Ma J, Liu YY, 2022, Research on Curriculum-Based Ideological and Political Teaching under the Background of Course Groups in Sino-Foreign Cooperative Education. *Journal of Hubei Open Vocational College*, 35(24): 67–69.

[18] Li CL, Guo J, Wang CY, et al., 2022, Research on the Reform of Teaching Content and Model of Basic Mechanics Courses in Sino-Foreign Cooperative Education. *The Guide of Science & Education*, (35): 120–122.

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