

Research and Practice of Ideological and Political Education in Web Front-end Development Courses based on the Perspective of Three-All Education

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Abstract

Three-All Education refers to the concept of educating all individuals, throughout the entire educational process, and in all aspects. It embodies the inherent requirement of moral education and character building in higher vocational colleges, and aligns with the current trends in talent development. Curriculum ideological and political education, in the form of establishing a comprehensive education framework that educates all students throughout the entire course, integrates professional courses with ideological and political theory courses, creating a synergistic effect. This concept places the cultivation of morality and character as the fundamental mission of education. This article explores the development model of curriculum ideological and political education in higher vocational software technology programs from the perspective of Three-All Education. It takes the Web Front-End Development course as an example and explores effective approaches to nurturing students to become future skilled workers with a strong sense of responsibility and patriotism.

Keywords

Three-All Education; Curriculum Ideological and Political Education; Software Technology Major; Project-based Teaching.

1. Introduction

Higher vocational education is an important component of China's higher education system and represents a high-level education within the vocational education system. It bears the mission of nurturing talents for economic and social development. Higher vocational education has unique characteristics, including its direct alignment with industrial demands, a wide range of engineering and practical majors, and a strong focus on practicality. Its goal is to cultivate talents with craftsmanship, operational skills, and practical knowledge [1-2].

Three-All Education is a significant educational reform in China's higher education sector. It encompasses educating all individuals, throughout the entire educational process, and in all aspects. It emphasizes that educators should actively participate in students' moral education at all levels and in all aspects of teaching and education [3]. Three-All Education reflects the inherent requirement of moral education and character building in higher vocational colleges, and it aligns with the current trends in talent development. Curriculum ideological and political education is an approach that, in the form of constructing a comprehensive educational framework, integrates various courses with ideological and political theory courses to create a synergistic effect [4]. It places the cultivation of morality and character as the fundamental mission of education. The development of curriculum ideological and political education in higher vocational colleges is based on the curriculum, with ideological and political education as the focus. It emphasizes the integration of value-based education into the process of

knowledge transmission and skill development. It is an important initiative for higher vocational colleges to implement the fundamental task of moral education.

Based on the perspective of Three-All Education, conducting curriculum ideological and political education in IT-related programs at higher vocational colleges and implementing it in the Web Front-End Development curriculum is an effective way to explore nurturing students to become responsible future skilled workers with a strong sense of responsibility and patriotism.

2. Review of Domestic and International Research

2.1. Domestic Research

On May 28, 2020, the Ministry of Education issued the Guidelines for Curriculum Ideological and Political Education in Higher Education Institutions. These guidelines emphasized the implementation of several opinions regarding the deepening of reform and innovation in ideological and political theory courses in schools of the new era, as issued by the General Office of the Communist Party of China Central Committee and the General Office of the State Council. The document stressed the integration of ideological and political education into the talent development system, the comprehensive promotion of curriculum ideological and political education in universities, and the maximization of the educational role of each course. The aim was to enhance the quality of talent development in higher education by aligning various courses with ideological and political theory courses, unifying explicit and implicit education, creating synergistic effects, and establishing a comprehensive framework for educating all individuals throughout the entire educational process. For engineering-related majors, the curriculum emphasized strengthening students' education in engineering ethics. It aimed to cultivate a spirit of excellence in students, inspiring in them a strong sense of responsibility and patriotism, and motivating them to serve the country through science and technology.

Using the CNKI (China National Knowledge Infrastructure) database as a source and the keywords Three-All Education and Curriculum Ideological and Political Education, a total of 860 articles were retrieved. As shown in Figure 1, the number of research articles related to curriculum ideological and political education under the concept of Three-All Education has been on the rise, indicating that an increasing number of scholars are conducting research in this area.

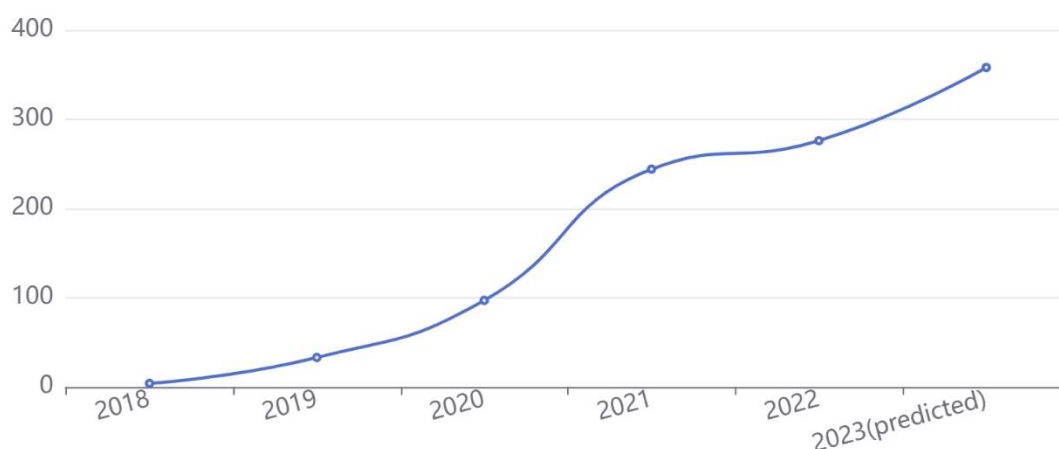


Figure 1. Annual number of literatures issued

Figure 2 illustrates the main themes in the research of Three-All Education and Curriculum Ideological and Political Education. Topics such as moral education and character building,

ideological and political courses, teaching reforms, higher vocational colleges, and collaborative education are all important areas of research.

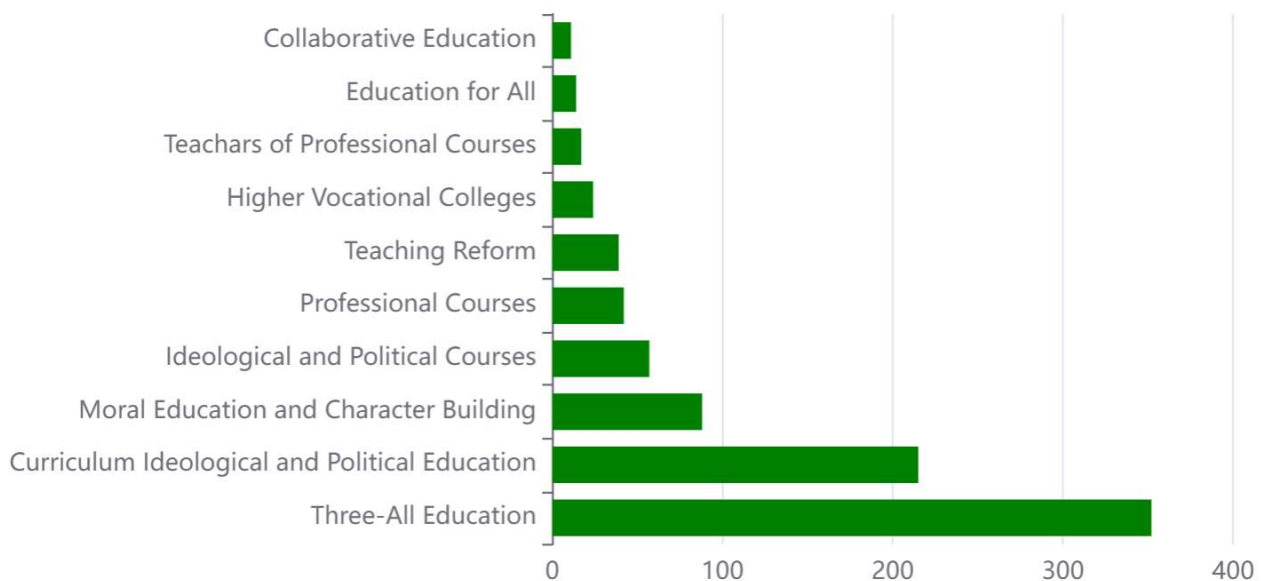


Figure 2. Literature distribution by different topic

Based on the reform requirements and previous practical experience of the first batch of comprehensive reform pilot departments under the Ministry of Education's Three-All Education initiative, Fu etc. conducted explorations on the practice of ideological and political education in undergraduate engineering courses, considering the different characteristics of foundational courses, specialized courses, and practical courses [5]. Chen etc. explored the curriculum ideological and political education in practical teaching for vocational engineering courses, taking a simple electrical circuit installation and debugging course as an example [6]. Shen and others studied the importance of basic economics courses in vocational engineering programs for innovation and entrepreneurship education in the context of the new engineering and Three-All Education initiatives [7].

2.2. International Research

Educationalist Taylor believed that the educational goals of a curriculum go beyond knowledge and skills [8]. They also encompass attitudes, values, interests, habits, ways of thinking, emotional responses, and other objectives. In addition to achieving the educational goals specific to the subject, a curriculum can make a unique contribution to various other educational functions. The ideological and political functions inherent in various courses represent the unique contributions of these courses. Apler argued that a curriculum cannot be politically neutral and that it inherently possesses strong political qualities [9]. The knowledge system of a school, which includes the acceptance or rejection of certain content, often serves ideological purposes. Dewey believed that moral education is omnipresent and cannot be achieved solely through a specialized moral course or subject to attain the desired moral education outcomes. American universities have, for a long time, structured a rich curriculum based on three different dimensions: humanities, social sciences, and natural sciences. General education courses are a primary battleground, creating a relatively comprehensive and closed environment for values education [10].

3. The Practice of Curriculum Ideological and Political Education based on Three-All Education

To cultivate skilled talents with perseverance, precision, meticulousness, and a pursuit of excellence, and to meet the unique competitive needs of enterprises, the nation, and society, vocational colleges should explore how to establish a distinctive path for nurturing a craftsmanship spirit in vocational education from the perspective of ideological and political education. They should prioritize moral education as the foundation, ensuring that ideological and political education permeates the entire talent development process. This involves integrating ideological and political education with project-based teaching reforms, as well as blending professional spirit with skills competitions, creating a new pathway for talent development.

3.1. Practice of Curriculum Ideological and political education Throughout the Curriculum Design Process

Using the teaching guidelines for curriculum ideological and political education, a framework system for ideological and political education in Web Front-End Development courses was established, deeply mining and refining the ideological values and spiritual content embedded within the course. This was done in alignment with the goals of cultivating talents in Web Front-End Engineering. Based on the Three-All Education framework, humanistic, scientific, and political literacy goals were derived. The curriculum design process incorporated curriculum ideological and political education into various aspects, such as the course outline, textbook selection and development, student analysis, teaching method reform, activity design, lesson plans, teaching process management, evaluation of the educational effect, and continuous improvement of curriculum ideological and political education.

3.2. Practice of Curriculum Ideological and Political Education based on Incorporating Maritime Specialization and Project-based Teaching

To reflect the maritime characteristics and fulfill the moral education mission, the Software Technology major chose project-based teaching cases that combine industry-specific values with a project focused on monitoring and servicing water pollution in the Yangtze River. This project was used to integrate technology throughout the curriculum for the entire Software Technology program, including cloud computing and big data. Through exploring the political and moral implications of the maritime industry, students gained a deeper understanding of the industry and the broader societal context. They developed a sense of professional pride and a strong connection to the maritime nation, actively contributing to the development of the country and the people. The utilization of unique educational resources, such as projects provided by the Maritime Bureau, made curriculum ideological and political education practical, grounded, and effective.

3.3. Practice of Curriculum Ideological and Political Education based on Multiple Parties Collaboration

Pairing specialized course instructors with counselors allowed for the identification of ideological and political elements within the curriculum. Counselors provided key recommendations for curriculum ideological and political education from the perspective of students' future development, transforming subject and academic resources into educational resources, achieving an organic integration of ideological and political education and knowledge system education.

Collaboration between specialized course instructors and competition coaches allowed for the integration of professional spirit with skills competitions. Integrating skills competitions into vocational education curriculum reforms helps improve teaching effectiveness and students'

professional capabilities while promoting the development of the profession. The curriculum, based on the Three-All Education perspective, organically combines skills competitions, project-based teaching, and curriculum ideological and political education, establishing a talent development model rooted in moral education.

4. Conclusion

This paper has analyzed the significance of curriculum ideological and political education in Web Front-End Development courses under the context of Three-All Education. It has assessed the current status of curriculum ideological and political education and constructed the content of curriculum ideological and political education within a project-based teaching framework. Through practical teaching activities, this paper has further refined the Three-All Education concept, summarized strategies and methods for curriculum ideological and political education in Web Front-End Development, and developed high-level content for curriculum ideological and political education in Web Front-End Development. This approach enhances students' sense of belonging and has practical significance for improving the quality of talent development in higher vocational education.

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References

- [1] Abdullah, Khairul Hafezad. "Four decades research on higher vocational education: A bibliometric review." *Journal of Vocational Education Studies* 4.2 (2021): 173-187.
- [2] Webb, Susan. "Higher vocational education and the matter of equity." *Equity and Access to High Skills through Higher Vocational Education*. Cham: Springer International Publishing, 2022. 9-35.
- [3] Hanbin, Zhang, Zan Yanjizhaoma, and Wu Leiping. "A Study on the Practical Path of "Three-All Education" in College English Translation Teaching Based on POA." *education* 5.5 (2022): 1-6.
- [4] Jiang, Pinzhu. "The Construction and Practice of Practice Base System Based on Cloud Computing Technology: -Taking Ideological and Political Education in Colleges and Universities as an Example." *Big Data Analytics for Cyber-Physical System in Smart City: BDCPS 2020*, 28-29 December 2020, Shanghai, China. Springer Singapore, 2021: 1477-1482.
- [5] Fu Haiying, Yang Cheng, Li Danni, et al. "Exploration of Curriculum Ideological Practice in Engineering Courses from the Perspective of 'Three-All Education'." *Higher Engineering Education Research*, 2021(05): 94-99+165.
- [6] Chen Jing, Gu Zihua. "Exploration of Curriculum Ideological Education in Practical Teaching of Vocational Engineering under the 'Three-All Education' Concept – A Case Study of the 'Simple Electrical Circuit Installation and Debugging' Course." *Scientific Consultation (Educational Research)*, 2021(08): 95-96.
- [7] Shen Ji, Wei Fang, Liu Yishan, et al. "A Brief Discussion on the Significance of Basic Economics Courses for Vocational Engineering Programs in the Context of 'New Engineering' and 'Three-All Education' for Innovation and Entrepreneurship Education." *Modern Vocational Education*, 2021(22): 80-81.
- [8] Martinez, Corinne. "Developing 21st century teaching skills: A case study of teaching and learning through project-based curriculum." *Cogent Education* 9.1 (2022): 2024936.

- [9] Wang, Zhankui. "Cultivating "Teacher-Scholar": Revisiting William C. Bagley's Philosophy of Teacher Education." *Journal of East China Normal University (Educational Sciences)* 40.7 (2022): 48-57.
- [10] TU Shiwan, CHEN Jingying. "Respect for the Individual: The Core of Education for International Understanding from the Perspective of International Laws." *Journal of Modern Education*, 2023, (1): 20-29.